Cleveland State University
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Graduate Catalog

Accelerated 4 + 1 BA/Master of Public Administration

Accelerated 4 + 1 BA/Master of Environmental Studies

Accelerated 4 + 1 BA/Master of Nonprofit Administration and Leadership

Accelerated 4 + 1 Program in Chemical Engineering

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Accelerated 4+1 Master of Science in Computer and Information Science

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Applied Communication Theory and Methodology, Master of

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Urban Geographic Information Systems (GIS), Graduate Certificate in

Urban Real Estate Development and Finance, Graduate Certificate in

Accelerated 4 + 1 BA/Master of Public Administration

Through the BA+MPA program, students may complete a BA in Urban Studies and an Master of Public Administration through the Levin College of Urban Affairs in five years, instead of the six academic years normally required of full-time students. High performing undergraduate students may apply to the 5-year program during the third year of undergraduate study and, if accepted, complete MPA coursework during the fourth year and a transition term. Students may then complete all remaining MPA coursework in two semesters of full-time graduate study.

Admission and Requirements

In addition to meeting the admission requirements for the conventional MPA program, students applying to the 5-year BA+MPA program must have a cumulative GPA of 3.25 and submit two letters of recommendation from Cleveland State University faculty. Upon successful completion of the fourth year and transition term, students are awarded the BA in Urban Studies. In order to be admitted to the final year of the BA+MPA Program, students must complete the BA with a cumulative GPA of 3.0 and receive grades of B or better in designated coursework.

For more information and curriculum plans, please consult the Levin College Office of Student Services, at 216-687-3884.

Students who are accepted for an accelerated 4+1 program may apply or transfer a maximum of 12 graduate credit hours taken while an undergraduate. No additional graduate credit hours taken as an undergraduate may be applied or transferred to the graduate record.

Accelerated 4 + 1 BA/Master of Environmental Studies

Through the BA+MA in Environmental Studies program, students may complete a BA in Environmental Studies and an MA in Environmental Studies through the Levin College of Urban Affairs in five years, instead of the six academic years normally required of full-time students. High performing undergraduate students may apply to the 5-year program during the third year of undergraduate study and, if accepted, complete MA coursework during the fourth year and a transition term. Students may then complete all remaining MA coursework in two semesters of full-time graduate study.

Admission and Requirements

In addition to meeting the admission requirements for the conventional MA in Environmental Studies program, students applying to the 5-year BA+MA program must have a cumulative GPA of 3.25 and submit two letters of recommendation from Cleveland State University faculty. Upon successful completion of the fourth year and transition term, students are awarded the BA in Environmental Studies. In order to be admitted to the final year of the BA+MA Program, students must complete the BA with a cumulative GPA of 3.0 and receive grades of B or better in designated coursework.

For more information and curriculum plans, please consult the Levin College Office of Student Services, at 216-687-3884.

Students who are accepted for an accelerated 4+1 program may apply or transfer a maximum of 12 graduate credit hours taken while an undergraduate. No additional graduate credit hours taken as an undergraduate may be applied or transferred to the graduate record.

Accelerated 4 + 1 BA/Master of Nonprofit Administration and Leadership

Through the BA+MNAL program, students may complete a BA in Nonprofit Administration and a Master of Nonprofit Administration and Leadership through the Levin College of Urban Affairs in five years, instead of the six academic years normally required of full-time students. High performing undergraduate students may apply to the 5-year program during the third year of undergraduate study and, if accepted, complete MNAL coursework during the fourth year and a transition term. Students may then complete all remaining MNAL coursework in two semesters of full-time graduate study.

Admission and Requirements

In addition to meeting the admission requirements for the conventional MNAL program, students applying to the 5-year BA+MNAL program must have a cumulative GPA of 3.25 and submit two letters of recommendation from Cleveland State University faculty. Upon successful completion of the fourth year and transition term, students are awarded the BA in Nonprofit Administration. In order to be admitted to the final year of the BA+MNAL Program, students must complete the BA with a cumulative GPA of 3.0 and receive grades of B or better in designated coursework.

For more information and curriculum plans, please consult the Levin College Office of Student Services, at 216-687-3884.

Students who are accepted for an accelerated 4+1 program may apply or transfer a maximum of 12 graduate credit hours taken while an undergraduate. No additional graduate credit hours taken as an undergraduate may be applied or transferred to the graduate record.

Accelerated 4 + 1 Program in Chemical Engineering

The Department of Chemical and Biomedical Engineering also offers an Accelerated Program that would enable students to earn Bachelor and Masters Degrees in Chemical [& Biomedical] Engineering in 5 years. Students are eligible to apply for the program after they have completed sixty-five (65) credit hours, typically at the end of the sophomore year (with at least 30 credit hours at CSU), and they have shown appropriate progress in their degree program. Once admitted to the combined program, the student may complete up to twelve (12) credit hours of graduate courses while enrolled in the undergraduate program. Ten (10) of these credit-hours will count towards both the undergraduate and graduate degree requirements. For more details, please refer to the appropriate pages in the undergraduate catalog.

Students who are accepted for an accelerated 4+1 program may apply or transfer a maximum of 12 graduate credit hours taken while an undergraduate. No additional graduate credit hours taken as an undergraduate may be applied or transferred to the graduate record.

Accelerated 4 + 1 Program in Civil Engineering

The Department of Civil and Environmental Engineering also offers an Accelerated Program that would enable students to a earn a Bachelor of Civil Engineering degree as well as a Master of Science in Civil Engineering in 5 years. Students are eligible to apply after they have completed sixty credit hours in their undergraduate program, with at least 30 credit hours earned at CSU. Once admitted to the combined program, the student may complete up to 11 credit hours of graduate courses while enrolled in the undergraduate program. These 11 credit-hours count towards both the undergraduate degree and the graduate degree requirements, either as electives or as requirements. For more details, please refer to the department webpage http://www.csuohio. edu/engineering/civil/acceleratedms.html

Students who are accepted for an accelerated 4+1 program may apply or transfer a maximum of 12 graduate credit hours taken while an undergraduate. No additional graduate credit hours taken as an undergraduate may be applied or transferred to the graduate record.

Accelerated 4 + 1 Program in Electrical Engineering

The Department of Electrical and Computer Engineering also offers an Accelerated Program that would enable students to a earn a Bachelor of Electrical or Computer Engineering degree as well as a Master of Science in Electrical Engineering in 5 years. Students are eligible to apply after they have completed sixty credit hours in their undergraduate program, with at least 30 credit hours earned at CSU. Once admitted to the combined program, the student may complete up to 12 credit hours of graduate courses while enrolled in the undergraduate program. These 12 credit-hours count towards both the undergraduate degree and the graduate degree requirements, either as electives or as requirements. For more details, please refer to the department webpage http://www.csuohio.edu/engineering/ece/academics/5yearprogram.html.

Students who are accepted for an accelerated 4+1 program may apply or transfer a maximum of 12 graduate credit hours taken while an undergraduate. No additional graduate credit hours taken as an undergraduate may be applied or transferred to the graduate record.

Accelerated 4 + 1 Program in Environmental Engineering

The Department of Civil and Environmental Engineering also offers an Accelerated Program that would enable students to a earn a Bachelor of Civil Engineering degree as well as a Master of Science in Environmental Engineering in 5 years. Students are eligible to apply after they have completed sixty credit hours in their undergraduate program, with at least 30 credit hours earned at CSU. Once admitted to the combined program, the student may complete up to 11 credit hours of graduate courses while enrolled in the undergraduate program. These 11 credit-hours count towards both the undergraduate degree and the graduate degree requirements, either as electives or as requirements. For more details, please refer to the department webpage http://www.csuohio.edu/engineering/civil/acceleratedms.html

Students who are accepted for an accelerated 4+1 program may apply or transfer a maximum of 12 graduate credit hours taken while an undergraduate. No additional graduate credit hours taken as an undergraduate may be applied or transferred to the graduate record.

Accelerated 4 + 1 Program in Mechanical Engineering

The Department of Mechanical Engineering also offers an Accelerated Program that would enable students to a earn a Bachelor of Mechanical Engineering degree as well as a Master of Science in Mechanical Engineering in 5 years. Applicants must have a cumulative GPA of 3.00 or higher at the time of application. Honors students are strongly encouraged to participate. Students who are interested in this program may submit applications upon completing their first semester of the junior year. Applications must be submitted by the end of the junior year. This application policy also applies to transfer students who have equivalent junior status. Students in this program must take 500-level courses in year 4, and 500-level or 600-level courses in year 5, as indicated in the BME/MSME Dual-Program Sheet. To remain in the program, students must maintain a 3.00 or higher GPA.

Minimum number of credits required to earn both degrees: 155 (thesis option) and 158 (project option).

For more details, please refer to the department webpage http://www.csuohio.edu/engineering/mce/graduatestudies.html

Students who are accepted for an accelerated 4+1 program may apply or transfer a maximum of 12 graduate credit hours taken while an undergraduate. No additional graduate credit hours taken as an undergraduate may be applied or transferred to the graduate record.

Accelerated 4+1 Master of Science in Computer and Information Science

This accelerated program enables students to earn both a Bachelor's and a Master's degree in Computer and Information Science in 5 years. The program allows a BSCIS student to take up to 12 credit hours of designated CIS graduate courses and count these courses both toward the Bachelor's and the Master's degrees in CIS. High performing undergraduate students may apply for this 5-year program during the third year of undergraduate study and, if accepted, complete MCIS coursework during their fourth year. Students may then complete all remaining MCIS coursework in two semesters of full-time graduate study.

Admission Requirements

A student is eligible to apply for the accelerated program if the following conditions are satisfied:

The student has been accepted as a CIS major;

- The student has completed at least 70 credit hours, at least 16 hours in CIS and at least 30 credit hours earned at CSU;
- The student has at least a junior standing at CSU; and
- The student has a cumulative grade-point average of 3.25 or better and a minimum average of 3.25 in CIS courses.

In addition, students must apply to the accelerated MCIS program before the completion of 110 credit hours towards the BSCIS degree, including transfer credits. Typically, such applications should be made at the end of the junior year. Also, admission to the Accelerated MCIS program does not require completion of GRE or equivalent tests.

For more information about the program, please consult the CIS department (216 687 4760) or go to the department website at http://cis.csuohio.edu.

Students who are accepted for an accelerated 4+1 program may apply or transfer a maximum of 12 graduate credit hours taken while an undergraduate. No additional graduate credit hours taken as an undergraduate may be applied or transferred to the graduate record.

Master of

Accountancy

Department of Accounting

Ahuja Hall 512
(216) 687-4720
http://www.csuohio.edu/business/academics/act/macc.html

Bruce McClain, Chair and Graduate Program Director

Programs of Study

Financial Accounting/Audit
Tax

Accreditation

The graduate programs of the Nance College of Business Administration are accredited by AACSB International. In addition to the business accreditation, the curriculum of the Accounting Department has accounting accreditation from AACSB. The accounting programs at Cleveland State were the first in the State of Ohio to receive this accreditation.

Faculty

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Introduction

The primary aim of the program is to develop competent accountants, knowledgeable in the areas of professional practice financial accounting/audit and tax. The program accommodates students on a full-time or part-time basis.

This program appeals to four general classifications of students:

1.   Undergraduate accounting majors who wish to broaden their knowledge of accounting and expand their expertise in financial accounting/audit or taxation.

2.   Undergraduate computer and information science majors who wish to expand their expertise to the area of accountancy.

3.   Undergraduate business administration majors in areas other than accounting and computer and information science who wish to specialize in accountancy.

4.   Students with undergraduate preparation in any area and a strong interest in the practice of accountancy.

Faculty Research and Publications

Accounting faculty members have published numerous books and journal articles on topics ranging from computer auditing and control, cost accounting, and financial accounting, to federal taxation. Articles written by department faculty have appeared in the following journals:

Accounting Review
Journal of Accounting Research
Behavioral Research in Accounting
Journal of Accountancy
The Internal Auditor
Catalyst
Journal of Business Ethics
The International Journal of Accounting
Strategic Finance
Journal of the American Taxation Association
Cornell Hotel and Restaurant Administration Quarterly
Journal of Taxation
Journal of Accounting Education
Journal of Management Information Systems
Information Systems Audit and Control Journal
Tax Adviser
The CPA Journal
Applied Business and Administration Quarterly
The Practical Accountant
Journal of Business, Finance, and Accounting
Corporate Controller
Practical Tax Strategies
Today's CPA
Bank Accounting and Finance

Extensive computer facilities and databases are available to aid the research efforts of faculty members and graduate students.

Financial Assistance

The College of Business Administration has a limited number of graduate assistantships available each year. Students may apply for an assistantship by completing an application form available from the Graduate Business Programs Office. Copies of completed applications are

circulated to department chairs, graduate program directors, and other appropriate parties within the College. Interviews with prospective graduate assistants are arranged directly by department chairs and others who hire and supervise graduate assistants.

Career Information

The Master of Accountancy is designed to prepare students for careers in business, internal audit, government, consulting, and public accounting. The primary goals and objectives of the program are to develop competent accounting professionals who are knowledgeable in the various areas of professional practice and who possess:

- the ability to provide, interpret, and communicate financial and operating information essential to understanding the activities of an enterprise;
- the preparation to assume increasing levels of responsibility and leadership in the organizations they join; and
- the qualifications to enter advanced programs in business and/or accounting.

Programs of Study

The Master of Accountancy allows the student to pursue one of two programs of study:

1. The Financial Accounting/Audit program is designed to develop competent accountants, who are knowledgeable in financial processes and procedures and are able to provide and interpret sophisticated financial information for the business community.

2. The Tax program prepares individuals for entry into, as well as advancement in, professional tax practice.

The Master of Accountancy provides students with the opportunity to develop basic technical and statistical skills, to obtain knowledge of the business disciplines, and to pursue advanced course work in accounting or taxation. Graduates of the program are prepared to enter the accounting profession and to pursue satisfying and stimulating lifelong careers. Many graduates join public accounting firms, while others seek a variety of positions in the private and public sectors. Graduates of the program are well placed and have performed well in their job assignments, according to employers. A large percentage of students become CPAs, and recently there has been an increased interest in the Certified Management Accountant (CMA), the Certified Fraud Examiner, the Certified Internal Audit (CIA), the Certificate in Financial Management, and the Certified Information Systems Audit (CISA) examinations.

Admission Information

Applicants to the Master of Accountancy program must meet the admission requirements for the Graduate College, as well as the following additional requirements:

1. Students with an undergraduate GPA under 3.0 are required to take the GMAT or GRE

examination and will be admitted if they meet either of the following:

A total of at least 950 points based on the formula:
(200 x the undergraduate GPA) + GMAT/GRE score;

or at least 1,000 points based on the formula:
(200 x the upper-division GPA) + the GMAT/GRE score

The GMAT/GRE is not required for students with a 3.0 or better undergraduate GPA. Students not required to take the GMAT/GRE are evaluated based on their transcripts, and letters of recommendation, if provided.

2. Students who take the GMAT/GRE and score below the 20th percentile on the verbal section of the test are required to take the following remedial courses in business communication: GAD 502 (16th through 19th percentile); or GAD 501 and GAD 502 (below 16th percentile) Students scoring below the 25th percentile on the quantitative section of the GMAT/GRE are required to take a two-credit business mathematics course, OMS 500.

3. The GMAT is waived for applicants holding an advanced degree (master's, doctoral, MD, JD, Ph.D. or other equivalent degree).

4. An official transcript from each college or university previously attended must be sent to the Office of Graduate Admissions.

5. Letters of recommendation may be submitted but are optional.

6. For students who are not required to take the GMAT or GRE, OMS 500 may be required if the point average grade for college mathematics courses is less than 3.0 .

English language proficiency for International students' is assessed with the University-mandated TOEFL test. Minimum scores for the Internet-based TOEFL (IBT) are as follows: reading, 20; speaking, 20; listening, 21; and writing, 17.

Effective: January 1, 2009.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

The Master of Accountancy is awarded upon successful completion of the thirty-three credit hours of Professional Preparation (Level III). Preparation for taking Level III courses is through completion or waiver of all Level I and Level II course requirements.

Professional Preparation Courses

Level I: Basic Skill Proficiency

(12 credit hours)

Courses in Level I are designed to bring skills up to acceptable levels for completing graduate-level work. These courses may be waived on the basis of prior courses, work experience, or by examination. Familiarity with Microsoft Windows, Microsoft Office, and the Internet is required.

GAD 501 Business English (4 credits)
GAD 502 Intermediate Business English (3 credits)
OMS 500 Mathematical Models for Business (2 credits)
OMS 503 Statistical Methods for Business Decisions (3 credits)

Level II: Accounting and Basic Business Knowledge

(35 credit hours)

Courses in Level II provide knowledge of the basic business disciplines to prepare students for the upper-level graduate courses. These courses may be waived on the basis of recent undergraduate business course work.

ACT 501 Financial Accounting (3 credits)
ACT 531 Financial Accounting: Resources (4 credits)
ACT 532 Financial Accounting: Equities (4 credits)
ACT 600 Managerial Accounting (3 credits)
BLW 511 Business Law and Ethics I (3 credits)
ECN 503 Economic Concepts (3 credits)
FIN 501 Financial Management (3 credits)
GAD 515 Communications for Managers (3 credits)
MLR 501 Management and Organizational Behavior (3 credits)
MKT 501 Marketing Theory and Practice (3 credits)
OMS 511 Operations Management (3 credits)

Level III Courses—Professional Preparation

(33 credit hours)

Level III course work prepares the student for successful entry into the profession. Students may choose between two programs—Financial Accounting/Audit and Tax.

Financial Accounting/Audit Program Requirements

A. Accounting

(18 credit hours)

ACT 621 Federal Income Taxation (3 credits)* *
ACT 622 Attest Function (3 credits)*
ACT 631 Selected Topics in Accounting (3 credits)*
ACT 639 Accounting Policy (3 credits)
Two ACT electives (6 credit hours)

B. Information Systems

(15 credit hours)

ACT 553 Information Systems Auditing (3 credits)*
ACT 688 Accounting Systems (3 credits)*
Two IST/CIS electives (6 credit hours)
Business elective (3 credit hours)

Tax Program Requirements

A. Taxation

(12 credit hours)

ACT 621 Federal Income Taxation (3 credits)**
ACT 636 Federal Income Taxation of Corporations and Shareholders (3 credits)
ACT 637 Taxation of Partnerships (3 credits)
ACT 638 Tax Research and Planning (3 credits)

B. Taxation, Accounting, and Business Electives

(21 credit hours)

Three ACT electives (Tax) (9 credit hours)
ACT elective (Accounting or Tax) (3 credit hours)
Three accounting or business electives (9 credit hours)

*With successful completion of an equivalent course, this course will be waived and an additional ACT or IST course at the same level will be required.

**With successful completion of an equivalent course, this course will be waived and an additional tax course will be required.

Degree Candidacy

A student becomes a candidate for the Master of Accountancy degree upon:

1. Completion of the preparatory program.
2. Approval of a program of study.

Master of

Applied Communication Theory and Methodology

Areas of Study

Communication Technology
Interpersonal Communication
Mass Communication
Organizational Communication

Purpose, Objectives, and Career Information

The master's degree program provides graduate education in communication theory and methodology for students who seek to: 1) apply communication strategies to work-related problems and 2) ultimately pursue doctoral studies in communication. The program is directed primarily toward the development of communication scholars and specialists, i.e., individuals who are able to apply communication theory and methodology to the analysis and solution of a variety of communication problems. The program emphasizes the ability to synthesize and interpret research in socially useful ways while also allowing for specialization in conducting research.

Communication techniques and problem-solving strategies are incorporated into this program to provide an effective background for individuals in careers such as corporate media or training, journalism, organizational communication consulting, promotional communication, and campaigning. Business or management personnel who need experience in communication problem solving will also find the program useful. Recent graduates of the program are employed in such diverse fields as advertising/public relations research, broadcast programming, corporate research, government, personnel/administration, and retailing. Others have continued with doctoral studies at major U.S. universities.

The key words "applied theory and methodology" emphasize that students are expected to utilize their education in the pursuit of their individual career objectives. For most students this occurs when they conduct a master's thesis or alternative project.

Communication Research

Communication research involves the scientific study of communication in order to help individuals and institutions meet the changing needs of today's society. The members of the department faculty have published hundreds of articles and book chapters, more than twenty books, and have received many grants and Fulbright Fellowships. Areas of expertise include communication technologies, corporate communication, conflict management, health communication, and media audience analysis.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

A national sample survey of communication faculty has given a strong positive evaluation of the Cleveland State University Master's degree program in Applied Communication Theory and Methodology. Asked to indicate the best master's program in communication in the United States among universities not offering the Ph.D. degree, faculty across the country rated the Cleveland State program the best. These findings were presented at the 2001 annual convention of the International Communication Association.

Graduate students are encouraged to work as research interns with faculty. Students also are encouraged to present their work at professional conventions and to coauthor papers for both scholarly and trade publications. Recent research projects involving graduate students include:

- The diffusion and use of new communication technologies,
- Mass media and interpersonal influences on career aspirations of teenagers,
- Bullying behavior in the workplace,
- Accounts of unexpected events in organizations,
- Media effect on political beliefs,
- Advertising influences on consumers cognitions,
- How TV violence affects ethnic and racial stereotypes,
- Effects of community characteristics on newspaper reporting styles,
- Use of Web sites for community integration, and
- Communication deficiencies in interpersonal and organizational contexts

Graduate students also work at the Communication Research Center on survey projects for clients that include regional and national marketing/ research agencies.

Financial Assistance

Research and teaching assistantships are available. Assistantships are awarded based on merit as reflected in undergraduate records and letters of recommendation, as well as financial need. Graduate assistants must maintain at least a 3.0 grade-point average. Receipt of more than one grade below a "B" also warrants revocation of an assistantship. Graduate assistantships are awarded starting in April until all positions are filled.

Admission Information

Applicants for admission to the master's program in Applied Communication Theory and Methodology must:

1 Hold a bachelor's degree from an accredited college or university.

2 Have a cumulative undergraduate grade-point average of at least 2.75.

3 Submit the results of either the Miller Analogies Test or the Graduate Record Examination. Students with an undergraduate GPA of 4.0 are exempted from this requirement.

An undergraduate major in communication is not required for admission consideration. However, applicants without such a degree may be required to make up deficiencies either before being admitted or during the first semester of enrollment. No graduate credit is granted for making up deficiencies.

Applicants are screened by the Department Graduate Committee, which makes its decision based on:

1. The undergraduate record.

2. The career aspirations of the applicant.

3. A statement from the applicant regarding the expected benefits to be derived from the program.

4. Performance on the Graduate Record Examination or the Miller Analogies Test.

5. Two or more letters of recommendation.

Students who enroll in the program should be interested in relating course work to career objectives, and to solving communication problems. Students may enter the program in fall or spring semester.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Curriculum

The program requires the completion of 32 or 38 credits, depending on exit option (see descriptions below), including at least 24 required communication course credits as follows:

Core Requirements (8 credits)

Students should consult with their advisor to determine when courses should be taken. The following are required core courses for all students seeking the master's degree:

COM 501 Pro Seminar in Communication (4 credits)
COM 512 Communication Research Methods (4 credits)

Communication Theory (8 credits)

Two of the following required:
COM 610 Organizational Communication Theory (4 credits)
COM 620 Interpersonal Communication Theory (4 credits)
COM 630 Mass Communication Theory (4 credits)
COM 640 Persuasive Communication and Campaigns (4 credits)

Research Methods (4 credits)

One of the following required:
COM 631 Multivariate Statistical Methods (4 credits)
COM 632 Audience/Media Research Methods (4 credits)
COM 633 Content Analysis Research Methods (4 credits)
COM 634 Ethnographic/Qualitative Research Methods (4 credits)
COM 635 Participant Observation/ Interviewing Methods (4 credits)

Application Courses (4 credits)

One of the following required:
COM 641 Political Communication (4 credits)
COM 642 Communication and Technology (4 credits)
COM 543 Theory Building (4 credits)
COM 544 Mediation and Collaborative Problem Solving (4 credits)
COM 548 Managing Organizational Teams (4 credits)
COM 549 Health Communication (4 credits)

Electives

(4 or 12 credits, depending on exit option)

All other graduate-level communication courses are electives. Courses in other departments may be taken in lieu of these courses, with the graduate program director's approval. Specific elective needs and interests of students will determine how many electives are completed outside of the school.

Exit Options:

COM 689, COM 697, COM 698, or COM 699.

Students have four exit options: thesis, project, collaborative research, and comprehensive

examination. For the thesis option, students take four credit hours of electives and four credits of thesis. For the project option, students take four credit hours of electives and four credits of project. For the collaborative research exit option, students take four credit hours of electives and the four-credit hour collaborative research course. For the comprehensive examination option, students take twelve hours of electives and a two-credit examination.

Degree Requirements

Successful completion of the Master of Applied Communication Theory and Methodology degree program requires the following

1)   Successful completion of a minimum of 32 or 38 credit hours, depending on the exit option, which may include a maximum of eight hours of transfer credit.

2)   Completion of a minimum of 20 credit hours in communication courses at Cleveland State University as a graduate student, not including collaborative research, comprehensive examination, project, or thesis credits (COM 689, COM 697, COM 698, or COM 699).

3)   Completion of a program of study approved by the Graduate Committee in Communication and the student's masters committee.

4)   A minimum 3.0 grade-point average in all courses taken for the degree.

5)   Students have four options for the completion of the degree following course work: a thesis, a project, collaborative research, or a comprehensive examination.

a.   Thesis students must submit a thesis and present an oral defense of their research. A maximum of four credit hours for thesis research (COM 699) may contribute to the 32-credit total.

b.   Project students must submit a project report and orally defend the report. A maximum of four credit hours for the project (COM 698) may contribute to the 32-credit total.

c.   Students must successfully complete the Collaborative Research Project (COM 689). A maximum of four credit hours may contribute to the 32-credit total.

d.   Non-thesis/non-project/non collaborative research students must complete eight additional credit hours of course work (for a total of 36 hours), and pass a comprehensive examination (COM 697, two credit hours).

6)   Students must present a bound copy of the thesis or project to each member of the committee and to the School of Communication Graduate Office.

7)   Requirements for the degree must be met within six calendar years of the student's admission to the program.

Master of Science in

Biology

Department of Biological, Geological, and Environmental Sciences

Science Building Room 219
(216) 687-2440
http://web.bges.csuohio.edu/

Anton A. Komar, Ph.D. and Crystal M. Weyman, Ph.D.: Graduate Program Director

Introduction

Department faculty and staff members of The Lerner Research Institute (LRI) of The Cleveland Clinic Foundation (CCF) work in cooperation to offer graduate training in a broad range of biological sciences. For example, molecular and cell biologists at both Cleveland State and the LRI study regulation of signal transduction and gene transcription in cell division, programmed cell death, and cell differentiation in the context of normal development and disease states that include cancer, cardiovascular disease, and autoimmune and neurological disorders. Other Cleveland State faculty participate in several programs focusing on local ecological and environmental issues that provide opportunities for graduate research. These include the Cuyahoga River Watershed Project and the OhioView consortium on remote sensing. The non-thesis Masters program offers as a possible specialization a track in Museum Studies for Natural Historians. The graduate program is open to full-time and part-time students as well as to non-degree students who are preparing themselves for entry into degree programs or are seeking to keep abreast of new developments in their fields of interest.

Faculty Research:

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Facilities

Departmental facilities include a large animal-care facility, cold rooms, darkrooms, fluorescent and light microscopes, environmental chambers, a greenhouse, and an assortment of computers with Internet access. The department also utilizes the newly established DNA Sequencing Facility and space in field stations in the Cuyahoga Valley National Park and in Belize. Most CCF faculty are located in the new Research and Education Building of The Lerner Research Institute, with its state-of-the art facilities, including a vivarium and core facilities for biotechnology, transgenic mice, flow cytometry, microscopy, protein sequencing, and hybridoma work.

Career Information

Graduates are employed in research, teaching, and administrative positions in private industry, hospitals, governmental agencies, environmental action groups, and colleges and universities in the Cleveland area, throughout the United States and abroad. The graduate program also attracts established teachers, research scientists, and management and staff in diverse businesses with a biological or biomedical focus.

Admission Requirements

Applicants must meet College of Graduate Studies admission requirements regarding grade-point average, Graduate Record Examination (GRE) scores, and TOEFL results. Applicants must have submitted official transcripts for all undergraduate and any previous graduate study, the GRE General Test scores, two letters of recommendation, and a statement of personal career goals and research interests. Applicants whose native language is not English must demonstrate English-language proficiency by submitting official scores for the TOEFL, the Michigan Test, or an equivalent examination, unless they hold a degree from a U.S. institution. (See the section on International Students in this Catalog.)

Applicants must have completed a minimum of one semester of statistics or calculus, one semester of organic chemistry, one semester of physics, and have a strong background in biology that is essentially equivalent to the Cleveland State undergraduate core curriculum. Questions should be directed to the BGES Graduate Program Director.

Submit application materials to the Graduate Admissions Office (U.S. citizens and permanent residents) or the Center for International Services and Programs (international applicants and current visa holders).

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Graduate Assistantships/ Fellowships

Full-time graduate students pursuing thesis or dissertation research may be supported through teaching assistantships or fellowships by the department for a period that, as a rule, should not exceed three years. This support includes tuition and a stipend. Full-time teaching assistants are expected to work twenty hours per week and must enroll as full- time students (currently nine credit hours, including research credits). Research assistantships may be available through the research grants of individual faculty. A limited number of graduate tuition waivers, which carry a service requirement of ten hours of work per week, may be awarded to students with superior credentials, as funds are available. Requests for assistantships should be indicated on the Application for Graduate Admission or by letter to the BGES Graduate Program Director. Awards are competitive, based on all application materials. Initial decisions usually are made based on completed applications on hand in March for fall semester and, if assistantships are available, in November for spring semester. Required minimums for grade-point average, GRE scores, and

TOEFL score are higher than those for admission to the program. In order to hold a teaching assistantship, non-native, English-speaking teaching assistants must be assessed and certified as proficient in spoken English

Degree Requirements:

The Master of Science degree may be earned through either a thesis or a non-thesis program. A student will be admitted to candidacy when the following requirements are met:

1.   Deficiencies in undergraduate preparation are satisfied.
2.   Eight graduate hours of course work are completed with a grade point average of 3.0 or better.
3.   A plan of study and, for the thesis option, the research proposal are approved by the Advisory Committee and accepted by the Graduate Committee, and the Cleveland State Thesis Proposal Approval Form is submitted to and approved by the Dean of the College of Graduate Studies.

Thesis Option

Besides course work, the degree requires a thesis, based on original scientific research of sufficient quality for publication in a peer-reviewed scientific journal.

Requirements

1.   Selection of a Major Advisor and an Advisory Committee. The Major Advisor typically is the primary supervisor and source of support for the student's thesis research. Together, the Major Advisor and Advisory Committee supervise the student's plan of study and research proposal, monitor progress, certify that requirements have been met in a timely fashion, and process all petitions, progress reports, and other communications with the Graduate Committee.

2.   Completion of a minimum of 32 credit hours with a minimum grade-point average of 3.0 distributed as follows:

a. Total course work and research
Courses (minimum) 23 credits
Research (minimum) 8 credits
Additional courses or research 1 credit
Total minimum* 32 credits
   *College of Graduate Studies regulations specify that all courses must be 500-level or above; not more than seven credit hours of 400-level courses in related areas and not offered by the BGES Department may be included, if approved by the Advisory Committee and the BGES Graduate Committee.
b. Required courses: Each student must complete BIO 500 and BIO 502 (Graduate Orientation), BIO 504 (Biological Chemistry), and BIO 540 (Biostatistics) or an equivalent college

statistics course.

    c. Seminars: Each M.S. student must complete at least three seminar courses (BIO 688) and complete one credit of BIO 684 (Research Seminar).

    d. Remaining courses: Each student formulates an individual plan of study in consultation with the Major Advisor and the Advisory Committee. This includes areas of course-work concentration as well as any additional elective courses needed to fulfill degree requirements described above.

    e. Thesis research: The student's individual research project should be of sufficient quality to be published in a refereed scientific journal.

  3. Continuous enrollment for a minimum of one credit hour from admission to candidacy until graduation.

  4. **Exit Requirements:**

    a. Presentation of the thesis research at a departmental seminar.

    b. Defense of the thesis before a faculty committee. Two unsuccessful attempts to defend the thesis shall result in a recommendation for dismissal from the program.

    c. Submission of the approved thesis together with an article or manuscript, based on the thesis, in a format suitable for submission to a refereed scientific journal.

Non-Thesis Option

Students in the non-thesis option may earn the M.S. degree in Biology by completing a minimum of 32 credit hours of course work and passing a comprehensive examination, based on a Library Research Paper that presents a critical review of original scientific literature on a topic chosen by the student. The BGES Graduate Program Director serves as the Advisor.

Requirements

  1. Completion of a minimum of 32 credit hours with a minimum grade-point average of 3.2 distributed as follows:

    a. Total course work 32 credits *May not include research credits (e.g., BIO 691 or BIO 695) or BIO/EVS courses below the 500-level; not more than seven credit hours of 400-level courses in related areas and not offered by the BGES Department may be included, if approved by the Advisor and the BGES Graduate Committee.

    b. Required courses: Each M.S. student must complete BIO 500 (Graduate Orientation), BIO 504 (Biological Chemistry), BIO 690 (see Exit requirements), and a course in statistics if not previously taken.

    c. Seminars: Each M.S. student must complete at least three seminar courses (BIO 688) and complete one credit of BIO 684 (Research Seminar).

    d. Remaining courses: Each M.S. student formulates an individual plan of study in consultation with the BGES Graduate Program Director. This includes areas of course-work concentration, as well as any additional elective courses needed to fulfill degree requirements described above.

2. **Exit requirements:**

   a. Selection of an Examining Committee to supervise the Library Research Paper.

   b. Successful completion of the comprehensive examination (BIO 690) by presenting and defending the Library Research Paper before the Examining Committee. Two unsuccessful attempts to pass the comprehensive examination shall result in a recommendation for dismissal from the program.

Museum Studies Track (Natural History)

Introduction

The Museum Studies track is a version of the non-thesis Masters in Biology that will serve as an introduction to the various aspects of professional work in museums, with particular attention to science museums. Modern museums have redefined themselves as educational, social, and cultural institutions, in addition to the traditional functions of scientific research and preservation. They house, protect, and preserve objects for posterity, and for study and enrichment. The objects found in natural history museums span many scientific disciplines and almost the entire existence of the earth; illuminating the history of these objects requires diverse techniques for direct observation and indirect inference. Further, modern natural history museums often maintain large collections of living organisms and may administer extensive nature preserves. Modern technology makes us human and it provides the tools for increasing our knowledge of and effect on the natural world; as such, technology itself is increasingly seen as a suitable object for natural history museums. Finally, modern museums encourage public engagement through volunteer programs, student internships, and a variety of educational programs; they also have a responsibility to contribute their experts and their store of basic scientific knowledge to enhance the factual basis of public issues where appropriate.

The course work will address general aspects of museums, including fund-raising, and focus on the primary goals of a science museum: education, preservation of collections and research. Students can choose electives to deepen their understanding of the science in the particular area of their interest. Finally, the certificate will include an internship experience.

Admission Information

It is expected that most interested students will have some background in one of the scientific or technological fields typically found in Natural History Museums or Science Centers. In general, requirements for admission to the Masters in Biology program apply.

Course Requirements

(23 credits)

  ART 504 Museology (4 credits)

BIO 500 Graduate Orientation (1 credit)
BIO 588 Museum Studies for Natural Historians (3 credits)
BIO 589 Internship in Museum Studies (Natural History) or BIO 597 Independent Study in Biology [Internship] (4 credits)
PAD 651 Fundraising for Non-Profits (4 credits)
PAD 652 Financial Administration for Non-Profits (4 credits)
BIO 688 Graduate Seminar [2 enrollments at 1 credit per enrollment] (2 credits)
BIO 690 Qualifying Examination (M.S.) (1 credit)

Additional credits of additional Biology and/or Environmental Science courses approved by the BGES Graduate Program Director (12 credits). Suggested courses include:

BIO 522 Mammalian Physiology plus BIO 523 Lab (4 credits)
BIO 530 Bioinformatics (3 credits)
BIO 536 Evolutionary Genetics (3 credits)
BIO 550 Evolutionary Biology (3 credits)
BIO 552 Marine Ecology (3 credits)
BIO 554 Ecology (3 credits) plus BIO 555 Lab (1 credit)
BIO 572 Wetland Ecology (4 credits)
BIO 574 Stream Ecology (4 credits)
BIO 578 Morphology of Flowering Plants (3 credits) plus BIO 579 Lab (1 credit)
BIO 622 Advanced Vertebrate physiology (3 credits)
BIO 640 Molecular Evolutionary Genetics (3 credits)
BIO 653 Advanced Research in Field Biology (4 credits)
BIO 656 Environmental Physiology (3 credits)
EVS 506 Ecosystem Science (3 credits)
EVS 520 Rivers and Watersheds of Northeast Ohio (2 credits) plus EVS 521 Lab (2 credits)
EVS 550 Applied Ecology (3 credits)
EVS 555 Conservation Biology (3 credits
EVS 570 Aquatic Ecosystems (3 credits)

Total credits = 35 (of which 32 fulfill departmental M.S. requirements)

Students who have never taken a college-level course in statistics must do so; BIO 540 Biostatistics or an equivalent graduate statistics course approved by the BGES Graduate Program Director is preferred.

This curriculum deviates from the standard requirements for a non-thesis Masters degree in Biology in the following ways:

1. BIO 504 Biological Chemistry is not required
2. Two, rather than three, enrollments in BIO 688 Graduate Seminar are required
3. Total credits are 35, not 32.

With the approval of the BGES Department, the internship can be the basis of the required Library

Research Paper (BIO 690).

Master of Science in

Biomedical Engineering

Department of Chemical and Biomedical Engineering

Stilwell Hall 455
(216) 687-2569
www.csuohio.edu/engineering/chemical/

D.B. Shah, Chair
Joanne M. Belovich, Graduate Program Director

Introduction

The graduate program in biomedical engineering is designed to provide students with the skills to apply engineering analysis and design to the solution of biomedical-related problems. The program provides a foundation built on fundamentals in the life sciences, including those at the cellular, tissue, and human physiology level. Advanced engineering courses are selected from fields including tissue engineering, biomechanics, imaging, bioMEMS, materials and nanotechnology, bioprocessing, and software engineering. The program offers two tracks: a thesis track and a design track. In-depth study of a specific research topic with a faculty mentor is conducted in the thesis track. Students in the design track work in teams on a year-long design project with mentors from either local industry or the Medical Device Solutions Department at the Cleveland Clinic. This biomedical design option is unique in northeast Ohio and among only a handful of similar programs nationwide. The design option is especially appropriate for those who will seek industrial employment directly after completion of the program and/or are interested in starting their own business. Upon completion of the program, students will be prepared to work in the medical device industry or to continue their education at the doctoral level.

Faculty Research and Publications

Areas in which students may conduct thesis research are reflected by the research interests and publications of the faculty. Participating faculty include members from the Department of Chemical and Biomedical Engineering as well as members from other engineering departments, and over 30 adjunct faculty members from the Department of Biomedical Engineering at the Cleveland Clinic. A list of participating faculty is shown at http://www.csuohio.edu/engineering/chemical/ABE/faculty.html

Financial Assistance

Graduate research assistantships and tuition grants are available to qualified students on a competitive basis. Applicants who are seeking an assistantship or tuition grant should so indicate

on the Application for Graduate Admission.

Career Information

Graduates of the MS in Biomedical Engineering program work in biomedical product development and design, testing and quality assurance, and research. Students seeking immediate employment after completion are encouraged to enroll in the design track. Students planning careers in academia or industrial research and development are encouraged to continue their education in the doctoral program in Applied Biomedical Engineering after completion of the thesis track.

Admission Information

Admission to the graduate program in biomedical engineering is open to qualified students with a baccalaureate degree in engineering or science, who present satisfactory evidence of the ability to pursue graduate studies. A minimum baccalaureate grade-point average of 3.0 usually is required. Programs of study will be developed for students with backgrounds other than engineering. Such students are required to take prerequisite courses as described under the Preparatory Program section.

Applicants should make arrangements to have official transcripts sent directly from their undergraduate institutions to the Graduate Admissions Office. Two letters of recommendation from individuals familiar with the student's undergraduate or graduate work also are required.

If applicable, the applicant also should request that official test scores for the Test of English as a Foreign Language (TOEFL) and Graduate Record Examination (GRE) be sent directly to the Graduate Admissions office by the testing agencies. The applicant must achieve satisfactory scores in these examinations.

The GRE General section is required if one or more of the following conditions is true:

- The undergraduate degree was awarded by a college or university outside of the United States, Australia, Canada, Ireland, New Zealand, or the United Kingdom.
- An unaccredited college or university awarded the undergraduate degree.
- The student's undergraduate cumulative grade-point average is below 3.00.
- The year of the baccalaureate degree precedes the date of application to the College of Graduate Studies by more than six years; however, in this case, the examination requirement may be waived, with program approval, if the applicant's undergraduate grade-point average is 3.0 or above.

If the GRE is required, a minimum score at the 80th percentile on the Quantitative section, and a score of 3.5 or higher in the Analytical Writing Qualitative section, are typically required.

International students should refer to an earlier section in this Catalog for information on testing requirements that demonstrate English-language proficiency.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

All students in the MS BME program must complete the following core courses (12 credits):

- BIO 624 Foundations of Biomedical Physiology (3 credits)
- BME 553 Cell and Tissue Biology (3 credits)
- BME 570 Biomedical Signal Processing (3 credits)
- One selected from the following ("key elective"):

  1. Biomaterials (BME 655, 3 credits)
  2. Medical Imaging (BME 659, 3 credits)
  3. Biomechanical Engineering (BME 651, 3 credits)

Students who have had any of the core subjects as part of a previous degree program will substitute an elective, subject to advisor approval, for the required course. The three core courses build the necessary foundation for the program in biomedical engineering. The key elective courses represent several of the specialization fields found traditionally within the discipline of biomedical engineering. These three specific areas were selected based on the expertise available from the participating faculty at CSU and The Cleveland Clinic. The key elective course is selected by the student according to his/her career interest and will most likely complement the student's background. For example, a BS chemical engineering student is likely to select Biomaterials or Biomechanical Engineering; a student with a BS in electrical or computer engineering may be likely to select Medical Imaging.

Students will select either the thesis or design track, as described below.

Thesis Track

This option is for the student who wants extensive research experience and a focus within a particular field. Students who plan to enter the doctoral program in Applied Biomedical Engineering should select this track. The requirements are:

- BME 699 Thesis (9 credits). The student plans and completes a research project, which may lead to publication in a peer-reviewed scientific journal, under the direction of a faculty advisor.
- Engineering electives (9 credits)

Design Track

This option is for the student who wants to apply engineering skills to the design of a biomedical process or product that may have direct benefit to health-care and/or the health-care industry. This option is especially appropriate for those who will seek industrial employment directly after completing the master's program and/or are interested in starting their own business. The requirements are:

- BME 658 Medical Device Design (3 credits)

- BME 674 Biomedical Design Project I (3 credits)
- BME 675 Biomedical Design Project II (3 credits)
- MLR 543 Entrepreneurship (3 credits)
- Engineering electives (6 credits)

Electives

Electives are selected from 500/600/700-level graduate engineering courses. Electives must be selected with advisor approval. It is recommended that students take a course sequence in a specific area in order to build depth of knowledge. Suggested course sequences are listed below:

- Medical Signal and Image Analysis: PHY 565 Image Processing, BME 659 Medical Imaging, BME 694 Experimental Methods in Biomedical Engineering, CHE 594 Data Analysis and Rectification
- Biomechanics: BME 651 Biomechanical Engineering, CHE 594 Biofluid Mechanics, CVE 512/ MCE 580 Finite Element Analysis I, CVE 513 Advanced Strength of Materials, ESC 794 Elasticity
- Tissue Engineering: BME 655 Biomaterials, BME 651 Biomechanical Engineering, CHE 586 Fundamentals of Polymers, BME 694 Tissue and Organ Engineering
- Materials synthesis/characterization/nanotechnology: CHE 586 Fundamentals of Polymers, CHE 580 Advanced Materials Processing, CHE 602 Surface Phase Equilibria
- Bioprocessing: CHE 566 Biochemical Engineering, CHE 504 Advanced Chemical Reactor Design, CHE 506 Advanced Transport Phenomena, CHE 508 Advanced Separation Processes, CHE 502 Advanced Thermodynamics, CHE 603 Fundamentals of Adsorption, CHE 606 Advanced Mass Transfer
- Sensors/MEMs devices: BME 655 Biomaterials, BME 694 BioMEMS, EEC 693 Biosensors, EEC 693 Nanotechnology, EEC 530 Digital Signal Processing
- Software Engineering: EEC 525 Data Mining, EEC 517 Embedded Systems
- Controls: EEC 645 Intelligent Control Systems, CHE 594 Data Analysis and Rectification

The Preparatory Program

Students who have an undergraduate background in a field other than engineering are required to have completed additional undergraduate coursework, including calculus through differential equations, one year of physics, one semester of general chemistry, and at least one undergraduate engineering course. The specific undergraduate engineering course requirement depends on the student's field of specialization, as shown here:

Field of Specialization (i.e. "Key Elective")	Prerequisite Courses
BME 655 Biomaterials	ESC 270 Material Science
BME 651 Biomechanical Engineering	ESC 301 Fluid Mechanics or CHE 306 Transport Phenomena
BME 659 Medical Imaging	MTH 283 Multivariable calculus; ESC 315 Electrical Engineering Concepts or EEC 310 Circuits

A grade of B or better must be earned in each of the undergraduate courses. There may be additional requirements depending on the student's background and selected concentration area.

These students may be admitted into the program prior to their completing all of the course requirements. Students will only be permitted to enroll in courses for which they have completed the prerequisites. These undergraduate credits will not count towards the 30 hours required for the degree.

Students should call the Chemical and Biomedical Engineering Department at (216) 687-2569 to set up an appointment with the Graduate Program Director prior to registering for classes.

Exit Requirements

Students must achieve at least a 3.0 grade-point average to graduate. Thesis students must submit a thesis to their graduate committee that follows the Thesis and Dissertation Format Guidelines, available on the College of Graduate Studies web page: http://www.csuohio.edu/gradcollege/students/thesis/ . In order to graduate, students' theses must be accepted by the graduate committee, and students must pass an oral defense of the thesis. Design-track students must prepare and present a formal report of their design project.

Master of

Business Administration (MBA)

Nance College of Business Administration

Ahuja Hall 219
(216) 687-3730
http://www.csuohio.edu/business/mba/

W. Benoy Joseph, Graduate Program Director

Programs of Study

Accounting
Business Economics
Economic Development
Finance
Health Care Administration
Information Systems
Management and Labor Relations
Marketing
Operations Management and Business Statistics

Special Programs

Accelerated Master of Business Administration
Executive Master of Business Administration

Joint Programs

Juris Doctor/Master of Business Administration
Master of Science in Nursing/Master of Business Administration

Introduction

The Master of Business Administration degree prepares individuals for careers in management. The program encourages men and women to develop knowledge, abilities, attitudes, technical skills, and understanding that will provide the foundation for the growth of competent and responsible managers and leaders for the private, public, and not-for-profit sectors.

The MBA curriculum is designed for students with undergraduate degrees in business or non-business areas. All required courses are offered both during the day and in the evening. MBA programs are also offered on the main campus and at various off-campus locations in the Cleveland metropolitan area to meet the needs of both full-time and part-time students.

The Faculty

The MBA Program is taught primarily by CSU's College of Business Administration graduate faculty, who are selected for expertise in their academic disciplines and related experience in business. In addition, all MBA faculty have terminal degrees in their field of specialization—many from the world's leading business schools. They are actively involved in the community—as business consultants, members of professional organizations, and community leaders—bringing a richness of practical application to every course they teach.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Accreditation

The graduate business programs of the Nance College of Business Administration are accredited by AACSB International, the Association to Advance Collegiate Schools of Business. In addition to the business accreditation, the Accounting Department has earned accounting accreditation from AACSB. The accounting programs at Cleveland State were the first in the State of Ohio to receive this accreditation.

Financial Assistance

The Nance College of Business Administration provides a limited number of graduate tuition grants and graduate assistantships. Tuition grant awards generally are reserved for first-year MBA students. Awards require a minimum nine-credit hour course load, and ten hours of service per week to the College. Graduate assistantships generally are reserved for second-year MBA students. They require a minimum 9 credit-hour course load and twenty hours of service per week. Application forms may be obtained in the Graduate Business Programs Office (Ahuja Hall 219). Other sources of financial assistance include scholarships and on-campus employment. Scholarship information is available at the following link: http://www.csuohio.edu/business/currstudents/scholarships.html.

Admission Information

Admission to the Master of Business Administration program is based on the following criteria:

1. Applicants must meet all College of Graduate Studies admission requirements.

2. The applicant must earn a minimum of 950 points based on the following formula: 200 times the overall undergraduate grade-point average plus the Graduate Management Admission Test

(GMAT) score; or at least 1,000 points based on the following formula: 200 times the upper-division grade-point average plus the GMAT score.

3. Students scoring below the 20th percentile on the verbal section of the GMAT are required to take the following remedial courses in business communication: GAD 502 (16th through 19th percentile) or GAD 501 and GAD 502 (below the 16th percentile). Students scoring below the 25th percentile on the quantitative section of the GMAT are required to take a two-credit course, OMS 500. The GMAT may be waived for applicants holding Ph.D. or MD degrees. Medical doctors must be licensed to practice in the United States in order to be considered for a waiver. Registration information for the GMAT is available in the Office of Graduate Admissions, Parker Hannifin Hall, Room 227. For GMAT test information, visit the Web site at www.mba.com .

4. A score from the Graduate Record Examination (GRE) may be substituted for the GMAT. The total GRE score, if applied to the above admission formula, will consist of the sum of the verbal and quantitative (mathematics) components of the GRE score. The percentile at which a student scores on the verbal or the quantitative components of the GRE will determine whether remedial courses in the respective areas (GAD 501/502; OMS 500) will be prescribed.

5. An official transcript from each college and university previously attended must be sent to the Office of Graduate Admissions.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

MBA Bridge Program for International Students

Students who have completed the three-year degree from recognized institutions outside the U. S. may be eligible for admission to the College of Business Administration MBA "Bridge" program. A bridge program is also available for applicants to the Master of Accounting and MCIS programs.

The bridge program requires students who qualify for admission to the MBA to complete an additional twenty-four credits of graduate courses in the field. The bridge courses must be selected after consulting with the program advisor. These courses may be taken at the beginning or at the end of the program of study.

For more information about the bridge program, please call the Graduate Business Programs Advising Office at (216) 687-3730. The office is located in Ahuja Hall 219.

Non-Degree Students

Non-degree students awaiting admission to a graduate program in the College of Business Administration are allowed to take a maximum of twelve credit hours from the following list of courses:

  ACT 501 Financial Accounting (3 credits)
  ECN 503 Economic Concepts (3 credits)
  FIN 501 Financial Management (3 credits)
  GAD 501 Business English (4 credits)
  GAD 502 Intermediate Business English (3 credits)
  GAD 515 Communications for Managers (3 credits)
  MBA 500 Environment of Business (3 credits)
  MLR 501 Management and Organizational Behavior (3 credits)
  MKT 501 Marketing Theory and Practice (3 credits)
  OMS 500 Mathematical Models for Business (2 credits)
  OMS 503 Statistical Methods for Business Decisions (3 credits)
  OMS 511 Operations Management (3 credits)

A student must be admitted as a Regular graduate student in the MBA program before being allowed to register for more than twelve graduate credit hours in the College of Business Administration.

Degree Requirements

The Master of Business Administration degree is awarded based on successful completion of a minimum of thirty-two credit hours of upper-level MBA courses (Level III). Preparation for taking Level III courses is achieved through completion or waiver of all Level I and Level II course

requirements. Students usually are not allowed to register for Level III courses until all Level I and Level II courses have either been taken or waived. Petitions must be approved by the MBA Program Advisor.

The Master of Business Administration degree includes courses from all of the departments of the Nance College of Business Administration, as well as courses from the Department of Economics. Questions regarding the program or specific courses should be directed to the Graduate Business Programs Office.

Courses in the three levels are as follows:

Level I: Basic Skill Proficiency

Courses in Level I are specially designed to bring skills up to acceptable levels for doing graduate-level work. These courses may be waived; please consult with the program advisor. Familiarity with Microsoft Windows, Microsoft Office, and the Internet is required.

  GAD 501 Business English (4 credits)
  GAD 502 Intermediate Business English (3 credits)
  OMS 500 Mathematical Models for Business (2 credits)
  OMS 503 Statistical Methods for Business Decisions (3 credits)

Level II: Basic Business Knowledge

Level II courses are designed to provide knowledge of the basic business disciplines to prepare students for the upper-level MBA courses. These courses may be waived based on recent undergraduate business course work.

  ACT 501 Financial Accounting (3 credits)
  ECN 503 Economic Concepts (3 credits)
  FIN 501 Financial Management (3 credits)
  GAD 515 Communications for Managers (3 credits)
  MBA 500 Environment of Business (3 credits)
  MLR 501 Management and Organizational Behavior (3 credits)
  MKT 501 Marketing Theory and Practice (3 credits)
  OMS 511 Operations Management (3 credits)

Level III: Upper-level MBA Courses
(minimum 32 credits)

These three groups of required courses are the heart of the MBA curriculum:

Group A: Functional Core

ACT 600 Managerial Accounting (3 credits)
FIN 601 Financial Policies (3 credits)
MLR 601 Human Resources Management and Labor Relations (3 credits)
MKT 601 Marketing Management (3 credits)

Group B: Integrative Core

MBA 600 Team Dynamics (1 credit)
MBA 602 International Business (3 credits)
MBA 603 Management of Innovation, Technology, and Quality (3 credits)
MBA 660 Integrative Business Strategy (4 credits)

Group C: Electives

Three graduate business electives (at least two at the 600 level) in any business area must be taken. Courses listed in Levels I and II of the MBA program cannot be taken as electives. Each department in the College of Business Administration offers courses in faculty-supervised independent study or internships. Only one of the two courses may be counted as an elective toward the MBA degree. Please see the course description section of this Catalog for each department.

Additional Requirements

The required credit hours of course work must be completed with the following conditions:

- All credits must be for business courses, taken either at Cleveland State University or transferred from another business college (see Transfer of Credit below).

- One of the three electives may be a 500-level course. See the course descriptions for a list of available courses.

- A minimum grade-point average of 3.0 in total work attempted while registered in the MBA program is required. College of Graduate Studies regulations regarding grades below B are applicable.

- Level III courses must be completed within six years prior to the proposed graduation date.

Transfer of Credit

Transfer credit may be granted for no more than nine semester hours of Level III courses, provided that the courses were completed for graduate credit at an institution accredited by AACSB. Graduate courses may not be transferred from other Cleveland State University colleges, except as allowed by the JD/MBA and MSN/MBA programs and the specialization in Economic Development.

Specialization

Within the MBA curriculum, specialization can be achieved by taking three elective courses (no more than one at the 500 level) within any of the following business disciplines: Accounting, Finance, Health Care Administration, Information Systems, International Business, Management and Labor Relations, Marketing, and Operations Management and Business Statistics. Specialization also can be earned in Business Economics and in Economic Development. For a list of economics courses and descriptions, please see the courses description section of this catalog.

Economic Development Specialization

Students seeking the Economic Development specialization within the MBA program will be required to take three electives from the following list of approved courses:

Two Required Courses:

UST 605 Urban Spatial Structures (4 credits).
UST 622 Economic Development Policy (4 credits).

Third Elective (choose one of the following):

UST 626 Economic & Workforce Development: Policy & Practice (4 credits)
FIN 612 Real Estate Investment (4 credits)

The College of Business Administration also offers the following master's degree programs in specialized areas:

- Master of Accountancy
- Master of Computer and Information Science
- Master of Labor Relations and Human Resources

One-year Accelerated MBA Program

The Accelerated MBA program enables an employed person to complete the MBA degree within a calendar year by attending classes on Saturdays and alternating Friday evenings. To qualify for admission, applicants must have a total of at least 1,000 points based on the following formula: 200 times the overall undergraduate grade-point average plus the GMAT score. Applicants to the Accelerated MBA program must be able to waive all Level I and Level II course requirements. This program is ideal for students with a recent bachelor's degree in business, or those candidates who have completed the necessary first-year MBA prerequisites. Participants can begin the program at one of two start dates each year. Students progress as a cohort group to the completion of their degrees. Accelerated MBA programs begin in early January and end in November, or begin in early August and end in June of the following year. Class sizes are limited. The application deadline for the January program is November 1, and June 1, for the August program. Contact the Accelerated MBA office at (216) 687-6925 for a program brochure and application materials.

Executive MBA Program

Cleveland State University's Executive MBA program provides a unique learning opportunity for highly motivated business executives, managers, and professionals to earn an MBA degree in nineteen months without interrupting their careers.

The opening week of the Executive MBA program begins with the "Manager's Workshop", a week-long residential orientation, study, and team-building experience. Classes during the remainder of the program meet on Saturdays and occasional Fridays.

The curriculum features strategic decision-making and integrative management skills, an international business study tour experience, a consulting practicum, regular guest speakers from industry, and balanced coverage of the major business disciplines. Special emphasis is placed on small study groups, giving participants the opportunity to benefit from each other's professional experiences and insights.

Admission Requirements

Candidates for admission are evaluated on the following criteria:

A nomination letter from a person who can comment meaningfully on the candidate's performance in a professional setting, preferably from a current or former supervisor.

- Candidates must have a minimum of five years of significant professional or managerial experience, as evidenced by a recent resume that details both professional background and work experience.

- Educational experience equivalent to at least a bachelor's degree from an accredited college or university.

- Evidence demonstrating the applicant's preparation for graduate study by fulfilling one of the following criteria:

  o Candidate possesses a graduate degree—no GMAT required.

  o Candidate completed an undergraduate degree with an overall GPA of at least a 2.8 out of a 4.0— no GMAT required.

  o Candidate whose highest degree is a bachelor's degree and has an overall GPA below a 2.8 out of 4.0, is required to take the GMAT and achieve a score of at least 950 total points using the following formula:
  200 x Undergraduate GPA + GMAT = 950 or higher

  o Minimum GMAT scores at the 20th percentile on the verbal component and 25th percentile on the quantitative is required to avoid additional course work.

  o A score from the Graduate Record Examination (GRE) may be substituted for the GMAT.

- Each candidate is interviewed by the admissions committee in order to determine the

individual's ability to pursue the EMBA.

For information about the Executive MBA program, call the EMBA office at (216)-687-6925 or visit the Graduate Business Programs Web site at http://www.csuohio.edu/business/mba/executive.html.

Off-Campus MBA Programs

The College of Business Administration offers the full MBA program at various locations in the Greater Cleveland area. The MBA degree can be completed in twenty-seven months, or fifteen months for students with a recent BBA degree. Students may take two classes, two evenings per week from 5:30-9:30 p.m. Current locations include Solon, Westlake, and Mayfield Heights. Call the Off-Campus Programs office at (216) 687-6925, for more information or visit the Web site at http://www.csuohio.edu/business/mba/offcampus.html.

JD/MBA Joint Degree Program

The design of the curriculum leading to the degrees of Juris Doctor and Master of Business Administration permits the student to complete both degrees within four years instead of the five years that normally would be required to complete the two degrees separately.

Applicants to the Joint Degree Program must apply for admission to both the College of Graduate Studies and the College of Law concurrently and follow the normal procedures of the respective colleges. Application for admission must be specifically for the Joint Degree Program. The student will not be allowed under any circumstances to take more than eight years to complete the combined program.

A student in the Joint Degree Program must begin the first year of work in the College of Law. The student's second year of study consists of the first year's curriculum of the Master of Business Administration program.

The Joint Degree Program requires a total of four academic years. The Juris Doctor requirements are fulfilled by the completion of eighty semester credit hours of work in the College of Law, including all required courses, as well as ten credit hours transferred from Master of Business Administration courses. The MBA requirements are fulfilled by the completion of twenty-two credit hours of required Level III MBA courses, as well as nine credit hours transferred from law courses. In order to ensure that the degree requirements of both programs are fully maintained, while at the same time permitting the saving of a full academic year, students who pursue the combined programs are not permitted to take elective courses outside of either the College of Law or the MBA program for credit toward either degree.

For information about the JD/MBA program, call the MBA Programs Advising Office at (216) 687-3730 or visit the Web site at http://www.csuohio.edu/business/academics/joint/juris.html .

MSN/MBA Joint Degree Program

The MSN/MBA program is designed for students with undergraduate degrees in nursing (BSN) who wish to complete advanced study in nursing and also prepare for careers in management and leadership.

The Joint Degree Program permits the student to complete both degrees within approximately three years. The MBA program accepts nine hours of core MSN courses as elective credit, and the MSN program accepts ten hours of core MBA courses as elective credit.

Applicants for the MSN/MBA program must meet the admission requirements for both the College of Business Administration and the School of Nursing. For information about the Joint MSN/MBA program, please see the program description in the Master of Science in Nursing section of this Catalog or visit the Web site at http://www.csuohio.edu/cehs/departments/nursing/msnmba.html. Information about the MBA program also can be obtained from the MBA Programs Advising Office (Ahuja Hall 219) or by calling (216) 687-3730.

Health Care Administration MBA

The College of Business offers a specialized MBA in Health Care Administration (MBA/HCA) which provides academic training, internships, and career guidance for students interested in career opportunities in the health care industry.

E-mail inquiries about the MBA/HCA and requests for application materials may be directed to hcaprograms@csuohio.edu. Prospective students are strongly encouraged to consult the HCA Program Office at 216.687.4711 or 216.687.4747.

Introduction

The Health Care Administration specialization within the Master of Business Administration program is accredited by AACSB International, the Association to Advance Collegiate Schools of Business. The program is designed to provide graduate education for individuals interested in preparing for or furthering their careers in the management and administration of all health care delivery entities, such as integrated systems, hospitals, and managed care organizations. The program also provides training that leads to careers in consulting, health planning, policy analysis, and long-term care administration.

The Health Care Administration specialization provides a comprehensive academic background in management theory and practice, together with the knowledge and skills associated with the field of health care administration, planning, and policy analysis. Through this specialization, students develop an awareness of the interaction and interdependence of management, finance, economics, medicine, politics, and the social sciences. The program also provides a unique opportunity to gain valuable practical experience through professional site visits, shadowing, and an intensive administrative work experience, referred to as the internship. Both full-time and part-time students are able to complete the program through courses offered during the day and in the evening. Full-time students usually are able to complete the program in two or two-and-one-half years, while part-time students have up to six years to earn the degree.

Admission Information

In addition to holding a baccalaureate degree, applicants for admission to the Health Care Administration specialization must meet the following requirements:

1. A total of at least 1,050 points based on the following formula: 200 times the overall undergraduate grade-point average plus the Graduate Management Admission Test (GMAT) score, or the average of the verbal and quantitative scores on the Graduate Record Examination (GRE); or at least 1,100 points based on the following formula: 200 times the upper-division undergraduate grad-point average plus the GMAT score or the average score on the GRE. No exceptions to the minimum point total are permitted under faculty approved policies.

2.   The GMAT/GRE may be waived for those applicants with an earned U.S. doctorate (Ph.D. or MD). International applicants with an earned doctorate (Ph.D. or MD) must present proof of U.S. equivalency. Medical doctors must be licensed to practice in the United States in order to be considered for this waiver.

3.   Students scoring below the 20th percentile on the verbal section of the GMAT/GRE are required to take the following remedial courses in business communication: GAD 502 (16th through 19th percentile); or GAD 501 and GAD 502 (below the 16th percentile). Students scoring below the 25th percentile on the quantitative section of the GMAT/GRE are required to take a two-credit course, OMS 500.

4.   An official transcript from each college and university previously attended must be sent to the Office of Graduate Admissions.

5.   A current resume, a statement explaining why the applicant wishes to enroll in the health care administration MBA, and two letters of reference must also be provided before an admissions decision can be made.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Non-Degree Students

As with the regular MBA, students awaiting admission to the Health Care Administration MBA are allowed to take a maximum of twelve credit hours while in non-degree status. Since the prerequisite requirements for the MBA in Health Care Administration are somewhat different from the regular MBA, students should enroll in the prerequisite courses only after consultation with a health care program advisor.

Non-degree students wishing to be accepted into the health care administration MBA are cautioned that they cannot be admitted as a regular student with a graduate grade point average below a B (3.0) average (this is a policy of the Graduate Studies College), and the grades for any coursework taken while in non-degree status are not considered in the admissions decision. Students with point totals of 950 or more, but less than 1050, may be admitted into the regular MBA Program and may take elective credit in the health care administration concentration.

Financial Assistance

Financial aid is available through the University. Graduate assistantship positions are available throughout the College of Business Administration departments and programs, including the health care administration MBA. Assistantships are generally reserved for students with the highest demonstrated potential for graduate level success based on grade point average and admissions test score. Students may apply for an assistantship by checking the appropriate box on the graduate application and by submitting a completed assistantship application form to the Graduate Business Advising Office.

Degree Requirements

The MBA with a specialization in health care administration is awarded on the basis of successful completion of a minimum of 35 semester hours of upper-level MBA and HCA courses. Preparation for taking upper-level courses is achieved through completion or waiver of all Level I and Level II course requirements. Students usually are not allowed to register for upper-level MBA and HCA courses until all Level I and Level II courses have either been taken or waived. Permission for exceptions is granted in consultation with the student's advisor or the Program Director.

The Health Care Administration MBA curriculum requirements were modified in Spring 2008. For students admitted into the program (those achieving entrance point totals of 1050 or 1100 or greater), there are now two options. The degree that is awarded upon completion of the degree requirements is the Master of Business Administration. That is what appears on the diploma for all MBA graduates regardless of specialization or concentration.

Option One requires students to take the full HCA/MBA curriculum, including the Capstone Administrative Internship (HCA 690/91) Students seeking Option One will have the notation placed on their transcript upon graduation, "specialization: health care administration".

Option Two is available to students who do not require the Capstone Administrative Internship experience. The usual reason students do not need the Capstone Administrative Experience is because they are already employed in responsible administrative positions within a health care setting. Option Two can be chosen towards the end of the student's program, and substitutes MBA 602 (International Business) for the Capstone Administrative Internship course. Students choosing Option Two may also be required to take the course in Business Communication (GAD 515) if it has not been waived by prior course work. Students selecting Option Two will NOT have the "specialization: health care administration" posted on the final transcript. The curriculum otherwise is exactly the same for students accepted into the health care administration MBA.

Students whose point totals are less than 1050 and are admitted to the regular MBA program may take elective credits in the health care administration concentration selected from the following courses: HCA 515, HCA 516, HCA 625, HCA 640 and HCA 650. Students enrolled in the regular MBA program may not take HCA 555, HCA 601 or HCA 660 for credit towards the MBA degree.

Curriculum

The curriculum consists of the following 3 levels of course work:

Level I: Basic Skill Proficiency (12 credit hours)

GAD 501 Business English (4 credits)
GAD 502 Intermediate Business English (3 credits)
OMS 500 Mathematical Models for Business (2 credits)

OMS 503 Statistical Methods for Business Decisions (3 credits)

Familiarity with Microsoft Windows, Microsoft Office, and the Internet is also required.
GAD 501, GAD 502, and OMS 500 may be waived by appropriate undergraduate preparation and/
or GMAT/GRE scores above the 20th percentile for the verbal component and/or the 25th
percentile for the quantitative component; OMS 503 may be waived by prior coursework in
statistics.

Level II: Basic Business Knowledge (may be waived by prior coursework) (15-18 credit hours)

ACT 501 Financial Accounting (3 credits)
FIN 501 Financial Management (3 credits)
MLR 501 Management and Organizational Behavior (3 credits)
MKT 501 Marketing Theory and Practice (3 credits)
GAD 515* Communications for Managers (3 credits)
HCA 511** Decision Models and Statistics for Health Care Managers (3 credits)

*Students opting for the HCA MBA without taking the Administrative Capstone HCA 690 course
must take or be waived from GAD 515.
**HCA MBA students who have not taken a course in Operations Management (OMS 511) should
take HCA 511.

Level III: Upper level MBA and HCA courses (35/36 credit hours)

A. Functional Core (13 credits)
   ACT 600 Managerial Accounting (3 credits)
   HCA 601* Financial Policies (3 credits)
   MLR 601 Human Resources Management and Labor Relation (3 credits)
   MKT 601 Marketing Management (3 credits)
   MBA 600 Team Dynamics (1 credit)
*Only students accepted in the HCA MBA program may take HCA 601 for credit toward the MBA
degree
B. Health Care Administration Core (6 credits)
   HCA 515 Medical Care Organization (3 credits)
   HCA 555 Analysis of Health Care Market (3 credits)
C. Advanced Health Care Administration Training (12 credits)
   HCA 516 Seminar in Health Policy and Quality (3 credits)
   HCA 625 Health Care Informatics for Managers (3 credits)
   HCA 640 Health Care Law (3 credits)
   HCA 660 Integrative Business Strategy for Health Care Administrators (3 credits)
D. Option One: Health Care Specialization Capstone Course (4-5 credits)

HCA 690 Administrative Internship (4 credits)
HCA 691* Administrative Internship/Research Project (1 credit)
*HCA 691 is for students seeking long term care certification
E. Option Two: Health Care Administration without the Capstone Course (3 credits)
602 International Business (3 credits)
The Health Care Administration Program also offers additional optional courses shown below:
HCA 650 Long-term Care (3 credits)
HCA 685 Health Care Internship (3 credits)
HCA 698 Independent Study in Health Care Administration (1 to 4 credits)

Students wishing to be certified for long-term care should plan to take HCA 650. Students interested in coursework beyond the minimum hours required for the degree may take the Internship (HCA 685) and/or the Independent Study (HCA 698) courses with the permission of the Program Advisor.

Learning by Experience - The Administrative Capstone Series: Internship, Professional Site Visits, and Shadowing

Health care administration programs view an administrative internship as an important component of graduate education. Even students with considerable experience in health care administration benefit from a well-planned and supervised internship. Many students report that the opportunity to integrate course work with experience was the high point of their graduate training in health care administration.

The Administrative Internship (HCA 690) is required of all MBA/HCA students who wish to have the "specialization: health care administration" appear on their transcripts (Option 1). The internship is defined as a planned and supervised learning experience gained through first-hand observations and operational responsibilities in a health service organization. It is expected that a minimum of 360 hours will be devoted to the internship. For students electing to specialize in Long Term Care, the Administrative Internship is a minimum of 800 hours, and the students are encouraged to enroll in HCA 650. This time may be scheduled, with prior approval of the Administrative Capstone Series Coordinator, at any time after the completion of 27 credit hours in the HCA Program. Each internship student is supervised by the Administrative Capstone Series Coordinator and an on-site preceptor with whom he or she maintains a liaison during the internship. The internship may be implemented either on a full-time or part-time basis.

The Professional Site Visit Experience is required of all MBA/HCA students under both Option 1 and Option 2. It involves on-site and on-campus experiences with senior management teams from a variety of health care entities throughout the student's tenure in the program. One (or up to two) of the professional site visits is a shadowing experience. Shadowing a health provider or other health professional is a proven way to learn more about career options and to confirm the chosen career path. Shadowing consists of four to eight hours of contact with a person and/or organization. These experiences are designed to broaden the opportunities for students to obtain in-depth knowledge of certain health-related professions, programs and organizations. Shadowing may take two forms: Clinical (a direct care provider) or Non-Clinical (an administrator, such as a

chief financial officer or company vice president).

A minimum of ten Professional Site Visits are required for graduation. One hour of academic credit is included in the HCA 690 AdminIstrative Internship for completion of the Professional Site Visits and other aspects of the Administrative Capstone Series beside the Internship, such as a faculty-evaluated Professional Presentation. Although not required, students may register for one hour of additional credit (HCA 685) for completing the Site Visits.

Master of Science in

Chemical Engineering

Department of Chemical and Biomedical Engineering

Stilwell Hall 455
(216) 687-2569/2571
E-mail: che@csuohio.edu
http://www.csuohio.edu/engineering/chemical/masters/

Dhananjai B. Shah, Chair, Department of Chemical Engineering
Jorge E. Gatica, Graduate Program Director

Areas of Study

Chemical Engineering Tack
Biomedical Engineering Track

Introduction

The graduate program in chemical engineering provides advanced training in core areas and allows the student to take courses on an advanced level in specific areas of interest.

The master's program is designed to meet the needs of both part-time and full-time students. It provides an opportunity for students to hold full-time employment and further their education on a part-time basis. Full-time students can complete the program in one year. The program meets the needs of students planning to continue their studies at the doctoral level, as well as students terminating their formal studies at the MS level.

Research activities of the faculty provide many opportunities for students to select projects applicable to a Master's Thesis (CHE 699) or a Master's Project (CHE 698). Research areas include reaction engineering, process modeling and control, tribology and surface phenomena, biochemical and biomedical engineering, material synthesis and processing, combustion, adsorption and diffusion in zeolites, transport phenomena, fluid mechanics, separation processes, statistical mechanics, glass forming, thermodynamics, and management of technology. The department is particularly strong in applications involving materials and biomedical engineering.

Faculty Research and Publications

Excellent facilities are available in support of student and faculty research. Faculty and students have local and remote access to personal and mainframe computer resources. Large-scale

computational problems can be solved, via remote log-in, at national centers for supercomputer applications. The department has a number of new instruments and research units. These include a high-temperature TGA/DTA, two Cahn micro balances, two scanning electron microscopes with x-ray dispersion analysis capability, a laser doppler velocimeter, a high-performance Berthy reactor, a fully instrumented bioreactor, a wear-and-friction testing and analysis unit, a high-pressure liquid chromatographic unit, a mercury porosimeter, two surface-area analyzers, a FTIR spectrometer, and an atomic force microscope/scanning-tunneling microscope. In addition, each research laboratory has appropriate instrumentation specific to projects. The research equipment in the department, along with faculty activity, provides outstanding investigative opportunities for graduate students. Students specializing in biomedical engineering may perform their research at the world-class research laboratories of The Cleveland Clinic Foundation.

External agencies presently provide over $1 million to support faculty research activities. Past and present research support from various sponsoring agencies in different areas is indicated below:

- Characterization of zeolites (Engelhard Corporation, BOC, Air Products and Chemicals)
- Bioreactors for mammalian cell culture (NASA)
- Modeling of integrated metabolic systems (National Institutes of Health)
- Adsorption and diffusion in zeolites (State of Ohio, National Science Foundation)
- Advanced materials for fuel cell applications (U.S. Department of Energy)
- Glass fiber drawing (U.S. Department of Energy)
- Cardiovascular Magnetic Resonance Imaging and blood flow mechanics (Siemens, State of Ohio)
- Microsegregation in directionally solidified alloys (NASA)
- Influence of convection on solidification morphology (NASA)
- Multi-functional reactors in the chemical process industry (State of Ohio)
- Thin film technologies for high-temperature lubrication and protective/conversion coating applications (NASA)

Faculty members have presented their research at national and international conferences and have published in such prestigious journals as The American Institute of Chemical Engineers Journal, Chemical Engineering Science, Combustion Science and Technology, Zeolites, Metallurgical Transactions, Journal of Colloid and Interface Science, Lubrication Engineering, Industrial Engineering Chemistry Research, Journal of Physical Chemistry, Computers and Chemical Engineering, Chemical Engineering Education, Latin American Applied Research, HVAC&R Research, International Journal of Fluid Mechanics, and International Journal of Engineering Science. Detailed descriptions of ongoing research projects, as well as a list of recent faculty publications, are available from the department, on request, or from the department Internet home page: www.csuohio.edu/chemical_engineering/

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Financial Assistance

Graduate teaching and research assistantships are available to qualified students. Students receiving assistantships are required to complete a master's thesis. International students who wish to be considered for teaching assistantships are encouraged to take the Internet-based TOEFL or the Test of Spoken English (TSE). Interested students should check the appropriate box on the Graduate Application form. Assistantships policies appear in the front section of this Catalog.

Career Information

The Chemical Engineering program prepares students for careers in design, operation, research, or management. While graduates of this program traditionally find employment in the chemical industry, more chemical engineering graduates are becoming employed in the areas of general manufacturing and computer engineering, including polymer and composite processing and materials engineering. Many companies seek graduate-level chemical engineers to work in the areas of bioengineering, energy management, and environmental engineering.

Admission Information

Admission to the graduate program in chemical engineering is open to qualified students with a baccalaureate degree in engineering or science, who present satisfactory evidence of the ability to pursue graduate studies. A minimum baccalaureate grade-point average of 2.75 usually is required. Programs of study may be developed for students with non-chemical engineering backgrounds. Such students are required to take prerequisite courses in chemical engineering, as described under the Preparatory Program section below.

Applicants should make arrangements to have official transcripts sent directly from their undergraduate institutions to the Graduate Admissions Office. Two letters of recommendation from individuals familiar with the student's undergraduate or graduate work also are required.

If applicable, the applicant also should request that official test scores for the Test of English as a Foreign Language (TOEFL) and Graduate Record Examination (GRE) be sent directly to the Graduate Admissions office by the testing agencies. The applicant must achieve satisfactory scores in these examinations.

The GRE General section is required if one or more of the following conditions is true:

• The undergraduate degree was awarded by a college or university outside of the United States, Australia, Canada, Ireland, New Zealand, or the United Kingdom.
• An unaccredited college or university awarded the undergraduate degree.
• The student's undergraduate cumulative grade-point average is below 2.75.
• The year of the baccalaureate degree precedes the date of application to the College of Graduate Studies by more than six years; however, in this case, the examination requirement may be waived, with program approval, if the applicant's undergraduate grade-point average is 3.0 or above.

If the GRE is required, a minimum score at the 80th percentile on the Quantitative section, and a score of 3.5 or higher in the Analytical Writing Qualitative section, are typically required.

International students should refer to an earlier section in this Catalog for information on testing requirements that demonstrate English-language proficiency.

The Masters in Chemical Engineering offers two tracks (i) a Chemical Engineering track (CHE track), or a (ii) Biomedical Engineering track (BME track). The CHE track is intended for students aiming for a professional career in the Chemical Processing Industry (CPI) or interested in the application of chemical engineering principles to problems relevant to Materials Science, or Environmental Engineering. The BME track, on the other hand, is intended for those students seeking a terminal degree followed by employment in the biomedical industry, as well as those planning to continue doctoral studies in biomedical engineering.

There is a preparatory program designed for students without a sufficient background in chemical engineering. The program provides them with a common background in engineering science and mathematics.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Accelerated Program in Chemical Engineering

The Department of Chemical and Biomedical Engineering also offers an Accelerated Program that would enable students to earn Bachelor and Masters Degrees in Chemical [& Biomedical] Engineering in 5 years. Students are eligible to apply for the program after they have completed sixty-five (65) credit hours, typically at the end of the sophomore year (with at least 30 credit hours at CSU), and they have shown appropriate progress in their degree program. Once admitted to the combined program, the student may complete up to twelve (12) credit hours of graduate courses while enrolled in the undergraduate program. Ten (10) of these credit-hours will count towards both the undergraduate and graduate degree requirements. For more details, please refer to the appropriate pages in the undergraduate catalog

The Preparatory Program

Graduate students who have an undergraduate background in a field other than chemical engineering are required to enroll in the Preparatory Program. This program is intended to prepare students for graduate courses in chemical engineering. The program consists of course work in the following areas:

CHE 300 Chemical Engineering Principles (4 credits) (Offered fall and spring semesters)
CHE 302 Chemical Engineering Thermodynamics (4 credits) (Offered fall semester only)
CHE 306 Transport Phenomena (4 credits) (Offered fall semester only)
CHE 404 Chemical Reactor Design (4 credits) Prerequisites: CHE 302 and CHE 306, or equivalents (Offered spring semester only)
CHE 408 Separation Processes (4 credits) Prerequisites: CHE 302 and CHE 306 (Offered spring semester only)

Depending on the student's background, additional courses in mathematics and chemistry may be required. Students should call the Chemical Engineering Department at (216) 687-2569 to set up an appointment with the Graduate Program Coordinator prior to registering for classes.

Prior to satisfactory completion of the entire Preparatory Program, no course may be taken toward the fulfillment of the graduate degree program unless authorized by the academic/research advisor.

1. Core courses (12 credits):
* CHE 502 Advanced Thermodynamics (4 credits)
* CHE 506 Advanced Transport Phenomena (4 credits)
and one of the following:
* CHE 504 Advanced Reactor Design (4 credits) or
* CHE 508 Advanced Separation Processes (4 credits)

2. A minimum of nine credits of graduate elective courses, subject to advisor approval. subject

to advisor approval. One of these courses may be in a technical discipline outside of chemical engineering (e.g., BIO 624 for students in the BME track). This course also may be at the 400 level. No courses required in the undergraduate chemical engineering program may be applied toward the graduate degree (consult the Accelerated MS Program for alternative plans of study). Students in the BME track must select the following two classes (6 credits)

- BIO 624 Foundations of Biomedical Physiology (3 credits, ABE course)
- CHE 653 Cell and Tissue Biology for Engineers (3 credits, ABE course)

and one (1) of the following (3 credits)

- CHE 655 Biomaterials (3 credits, ABE course)
- CHE 659 Medical Imaging (3 credits, ABE course)
- CHE 651 Biomechanical Engineering (3 credits, ABE course)

Students who have had any of these subjects as part of a previous degree program will have an alternate individual Plan of Study suggested by the Program.

3.   All students are required to present a department seminar on their research. This should occur, preferably, one semester prior to the thesis defense. . For students in the project option, their "Masters Project Presentation" will fulfill this requirement. Presentations can be department seminars, or presentations at regional, national, or international symposia.

4.   Students must select either a thesis option or a project option. The requirements for each option, in addition to those described above, are as follows:
   a.   Thesis option (9 credits)

The student plans and completes a research project, which may lead to publication in a peer-reviewed scientific journal, under the direction of a faculty advisor. The student must complete a minimum of nine credits of supervised research (CHE 699 or a combination of CHE 698 and CHE 699 credits). The student must enroll in at least six credits of CHE 699 (Master's Thesis). This option is designed for the student who wants extensive research experience and a focus within a particular field.
   b.   Project option (9 credits)

The student completes a research project under the direction of a faculty advisor. The student must complete a three-credit project and six (6) additional credits of chemical and biomedical engineering graduate electives. This option is designed to provide the student with a broader education in chemical and biomedical engineering, as well as to expose the student to modern research techniques in the discipline.

Students in the BME Track will complete the Project Option via the following sequence

- CHE 658 Medical Device Design (3 credits)
- 500 or 600-level CHE Graduate Elective (3 credits)

And a combination (a minimum of 3 credits in total) of

- CHE 698 Master's Project (1 to 3 credits, can be repeated for credit)
- CHE 692 Chemical and Biomedical Engineering Internship (1 credit)

Exit Requirements

Students must achieve at least a 3.0 grade-point average to graduate. Thesis students must

submit a thesis to their graduate committee that follows the Thesis and Dissertation Format Guidelines, available on the College of Graduate Studies web page: http://www.csuohio.edu/gradcollege/students/thesis/

In order to graduate, students' theses must be accepted by the graduate committee, and students must pass an oral defense of the thesis. Non-thesis students must prepare and present a formal report of their research project and present their results in a public seminar

Master of Science in

Chemistry

Department of Chemistry

Science and Research 397
(216) 687-2451
http://www.csuohio.edu/sciences/dept/chemistry/graduate/

Lily Ng, Chair
Yan Xu, Graduate Program Director

Areas of Study

Clinical Chemistry

The Faculty

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Research Facilities

The Chemistry Department is housed in the Basic Science Building and the Science and Research Center. In addition to well-equipped research laboratories, there are special function rooms, such as a cold room, glass and electronic shops, a computer room, and a darkroom. Generally, graduate students occupy research space near their research advisors, which leads to frequent interaction.

Major instrumentation available in the program includes superconducting multinuclear NMR, automated X-ray diffractometer, GC-ion-trap MS, MALDITOF and LC-ESI-triple quadruple and LC-ESI-ion-trap mass spectrometers, capillary electrophoresis, HPLC, GCFTIR, FTIR spectrometers, UV-visible spectrophotometers, liquid scintillation counter, immunoassay instrumentation, fluorescence spectrometer, atomic absorption spectrometers, EPR, and extensive computer capabilities. Students also have ready access to the facilities and the state-of-the-art instrumentation available at the Cleveland Clinic. The Cleveland State Mass Spectrometry Facility is located in the department and serves the research and service needs of Cleveland State faculty and students. Opportunities for graduate training in mass spectrometry are afforded through the facility.

MS Program in Chemistry:

The Master of Science degree in chemistry is designed for both full-time and part-time students. It provides advanced training for those who wish to further their careers in industry, laboratory medicine, or teaching, as well as students who feel the need for more study before pursuing a Ph. D. or MD. Graduate course offerings are scheduled in the evening so employed students can earn the degree on a part-time basis, taking one or two courses per semester. Graduate training at the MS level is offered in analytical, clinical, inorganic, medicinal, organic, physical, and environmental chemistry. The MS degree in the area of clinical chemistry includes practical training in the well-equipped operating medical laboratories. The MS program in chemistry offers both thesis and non-thesis options, except in the area of clinical chemistry, which is a course-work-only program

Financial Assistance

Teaching assistantships are not available to MS students. Research assistantships may be available through individual faculty, depending on external funding.

Admission Information

In addition to meeting the College of Graduate Studies requirements for admission, applicants for graduate study (Master's and Ph.D.) in chemistry must have had one year of general, organic, analytical, and physical chemistry; a year of physics; and mathematics through partial derivatives and multiple integrals. Applicants lacking any of these requirements may be admitted, but any deficiency must be made up as soon as possible. Credits earned in remedial courses do not count toward degree requirements.

Typically, chemistry applicants are required to submit to the University an official report of their performance on both the aptitude and chemistry subject area tests from the Graduate Record Examination (GRE) by the Educational Testing Service (ETS). However, applicants with outstanding records (grade-point average above 3.0 in addition to other evidence of solid preparation) may request that this requirement be waived by the Chemistry Graduate Committee. The GRE requirement cannot be waived for international students. International students who do not have a degree from an institution in the United States must also arrange to have the results of their performance on the TOEFL sent to the University by ETS.

The application deadline each year is January 15. Submit all materials to the Graduate Admissions Office, Parker Hannifin Hall, Room 227. (International applicants submit materials to the Center for International Services and Programs, Keith Building, Room 1150).

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

MS Degree Completion Requirements

The MS degree requires the completion of at least thirty-two credit hours of core and elective

courses. The formal course work for the MS degree is structured around a core of courses that includes nine to twelve credit hours of advanced chemistry courses from three chemistry categories and two credit hours of chemistry seminar. The remaining credit requirements may be fulfilled with any combination of elective courses suitable to a desired concentration and approved by the student's advisor.

MS students in the clinical chemistry program fulfill the departmental thirty-two-credit-hour requirement by completing the sequence of courses specified by the program.

Non-thesis MS students usually complete the credit requirement by taking appropriate courses as arranged by their advisor.

Thesis MS students in all areas ordinarily complete their program by taking appropriate courses for a total of at least sixteen credits (excluding credit for CHM 600 Chemistry Teaching) and then at least sixteen credits in experimental research (CHM699 MS Thesis) under the direction of a faculty advisor selected by the student. Upon completion of the research, each student is required to produce and defend a thesis accepted by a thesis committee. The committee consists of the student's advisor and at least two other graduate faculty members

Exit Requirements

MS students must either complete at least thirty-two credit hours of approved course work with a grade-point average of 3.0 or higher or complete at least sixteen credit hours of approved course work with a GPA of 3.0 or higher, at least 16 credit hours of CHM 699 MS Thesis, and successfully defend a master's thesis.

Master of Science in

Civil Engineering

Department of Civil and Environmental Engineering

Stilwell Hall 107
(216) 687-2400
http://www.csuohio.edu/engineering/civil/programs.html

Steve Duffy, Chair
Lutful Khan, Graduate Program Director

Programs of Study

Environmental
Structures and Foundations
Transportation
Water Resources

Introduction

The graduate program in civil engineering is designed to provide the student with knowledge of advanced methods for analysis and design or for research and development. The student must select one of the following graduate specializations: Structures/Foundations, Water Resources Engineering, or Transportation. Full-time or part-time study may be pursued.

Faculty Research and Publications

Areas in which students may conduct thesis or project research are reflected by the research interests and publications of the faculty. These areas include concrete and steel structures, structural mechanics and dynamics, experimental and theoretical stress analysis, elasticity, constitutive modeling, composite materials, stress-wave propagation, ultrasonics, nondestructive evaluation, finite elements, fracture mechanics, soil mechanics, foundations, water resources, hydraulics, transportation and highway engineering, and construction materials.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Financial Assistance

Graduate teaching and research assistantships and graduate tuition grants are available to

qualified students on a competitive basis. Applicants who are seeking an assistantship or tuition grant should so indicate on the Application for Graduate Admission.

Career Information

Graduates of the MS in Civil Engineering program work as project engineers for consulting firms; perform research in government laboratories; conduct analysis, design, and research in industry; and manage public works facilities. Recent graduates are working as a structural designer, a ceramics researcher, and a stress analyst. Job prospects for those with advanced degrees in civil engineering are excellent.

Accelerated Program in Civil Engineering

The Department of Civil and Environmental Engineering also offers an Accelerated Program that would enable students to a earn a Bachelor of Civil Engineering degree as well as a Master of Science in Civil Engineering in 5 years. Students are eligible to apply after they have completed sixty credit hours in their undergraduate program, with at least 30 credit hours earned at CSU. Once admitted to the combined program, the student may complete up to 11 credit hours of graduate courses while enrolled in the undergraduate program. These 11 credit-hours count towards both the undergraduate degree and the graduate degree requirements, either as electives or as requirements. For more details, please refer to the department webpage http://www.csuohio.edu/engineering/civil/programs.html Admission Information

Admission to the graduate program in civil engineering is open to qualified students with a baccalaureate degree in engineering or science. A minimum baccalaureate grade-point average of 2.75 typically is required. The applicant must have successfully completed those courses common to accredited undergraduate programs in engineering or engineering science, including the following: statics, dynamics, mechanics of materials, one year of physics, and mathematics up to and including ordinary differential equations. Additional course work may be required to satisfy deficiencies in the student's undergraduate preparation.

The GRE General section is required if one or more of the following conditions is true:

- The undergraduate degree was awarded by a college or university outside of the United States, or by a Canadian institution not accredited by the Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers.
- An unaccredited college or university awarded the undergraduate degree.
- The student's undergraduate cumulative grade-point average is below 2.75.
- The year of the baccalaureate degree precedes the date of application to the College of Graduate Studies by more than six years; however, in this case, the examination requirement may be waived, with program approval, if the applicant's undergraduate grade-point average is 3.0 or above.

If the GRE is required, the admission decision is based on the applicant's performance on the

quantitative section of the GRE examination along with the undergraduate grade-point average. A minimum of the 50th percentile on the GRE quantitative is required, but this minimum score does not guarantee admission.

All non-native English speakers must demonstrate proof of English-language proficiency. Any individual who has earned a bachelor's degree (or higher) from a U.S. institution, where the primary language of instruction is English, is not required to take an English-language proficiency examination. International students who want to be considered for teaching assistantships are advised to take the Test of Spoken English (TSE).

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

In addition to meeting other University requirements, a master's candidate is subject to the following regulations:

1. Completion of the core courses for the selected specialization.
2. A minimum of twenty-four credits of course work is required for students following the thesis option. These students must complete a minimum of six credits of thesis (a maximum of six credits count toward the degree).
3. A non-thesis option also is available, with advisor approval. Students following the non-thesis option must complete a minimum of thirty credit hours for the degree.
4. A maximum of six credit hours of course work may consist of approved 400-level courses taken outside of the department.
5. Course work may include a maximum of nine credits of graduate-level course work taken at other institutions.
6. A maximum of four credits of Special Topics may be used for the master's degree.
7. A maximum of nine credits may be taken outside of the department with advisor approval.

Specializations

Each specialization requires the completion of a set of core courses shown below.

Environmental

Core Courses

EVE 534 Environmental Transport Phenomena (4 credits)
EVE 570 Environmental Chemistry (4 credits)
EVE 572 Biological Principles of Environmental Engineering (4 credits)
EVE 671 Physical and Chemical Principles of Environmental Engineering (4 credits)

Structures and Foundations

Core Courses

CVE 511 Matrix Methods of Structural Analysis (3 credits)
CVE 512 Finite Element Analysis I or MCE 580 Finite Element Analysis I (3 credits)
CVE 517 Structural Vibrations (4 credits) or CVE 530 Advanced Soil Mechanics (3 credits)
CVE 531 Advanced Foundations (3 credits) Any 500-level CVE Structural Design | Course

Water Resources

Core Courses

CVE 561 Hydrologic Analysis (3 credits)
CVE 562 Open Channel Hydraulics (3 credits)
CVE 563 Water Resources Engineering (3 credits)
CVE 564 Groundwater Hydrology (3 credits)
EVE 570 Environmental Chemistry (4 credits) or EVE 572 Biological Principles of Environmental Engineering (4 credits)

Transportation

Core Courses

CVE 504 Civil Engineering Systems Analysis (4 credits) CVE 505 Reliability (4 credits)
CVE 547 Highway Engineering (4 credits)
Any 500-level CVE Transportation Engineering or related course, with advisor approval.

Exit Requirements

Thesis students must submit a thesis to their graduate committee, following the Thesis and Dissertation Format Guidelines, available on the College of Graduate Studies web page: http://www.csuohio.edu/gradcollege/students/thesis/

In order to graduate, each student's thesis must be accepted by the graduate committee and pass an oral defense of the thesis.

Non-thesis students must complete the course requirements.

Master of

Computer and Information Science

Department of Computer and Information Science

Ahuja Hall 344
(216) 687-4760
http://cis.csuohio.edu/academics/mcis/

Santosh Misra, Chair and Graduate Program Director

Programs of Study

Applied Distributed Systems
Artificial Intelligence
Database
Multimedia and Graphics
Networks
Programming Languages
Software Engineering
Theory and Algorithms

Faculty

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Introduction

The Master of Computer and Information Science (MCIS) program at Cleveland State University is a professional degree program specifically designed to combine a thorough education in computer and information science with applications in the areas of business, engineering, mathematics, or other relevant fields. It qualifies the graduate for a variety of positions generated by the increasing demand for upper-echelon computer professionals in industry, science, and government. These include application programmers, systems analysts, systems programmers, systems operation managers, and information technology managers.

Faculty Research and Publications

Because of the broad range of research interests of the faculty, there are numerous opportunities for students to participate in special projects or research in all areas of computer and information science. The optional master's thesis allows a student to conduct a more formal research project. Faculty publications and research interests over the past few years have been in the areas of database analysis and design, numerical analysis, optimization, performance measurement and evaluation, operating system design, data communications and network design, artificial intelligence, new computing paradigms, simulation, object-oriented systems analysis and design, object-oriented programming, healthcare systems, mobile computing, distributed computing, and geographic information systems.

Computer Facilities

Several major computer facilities are used by the Department to support research and teaching. These include a number of networked laboratories of basic and advanced personal computers and clusters of UNIX workstations, including HP Itanium, Sun Sparc/Ultra, SGI Indy/O2, IBM RS/6000, and Dell Linux workstations. These machines are connected to Fast Ethernet, ATM, and/or FDDI LANs. All laboratories are available to students for both course work and research. The networks are connected to the University fiber backbone, which, in turn, is linked to national networks.

The basic personal computer laboratory provides a variety of word-processing, spreadsheet, database, and programming-language software and is available to all students. In addition, special software is available as needed for individual courses.

The advanced personal computer laboratory provides advanced program-preparation software, specialized compilers, and other application software pertinent to advanced computer and information science courses, including C, C++, application servers, Java, Rational Rose, SAP, artificial intelligence compilers, and database software. Some of these resources are remotely accessible.

The workstation laboratory provides a networked UNIX environment that is used in courses, such as those dealing with advanced operating systems and computer networks. In addition to these computing facilities, a campus-wide wireless network is available that allows students to use their laptop to connect to the University's intranet as well as the Internet.

Financial Assistance

The College of Business Administration has a limited number of graduate assistantships available each year. A student may apply for an assistantship by completing an application form from the Graduate Business Programs Office. Copies of the completed applications are circulated to department chairs, program directors, and other appropriate parties within the College. Interviews with prospective graduate assistants are arranged directly by department chairs and others who hire and supervise graduate assistants. Assistantships are not awarded in

the CIS Department until a student has been in a graduate program for at least one semester.

Career Information

Students in the MCIS program have a wide range of options, allowing them to focus their studies on topics such as information systems, systems programming, database development, networks, web development, and others. As a result, a graduate's career options will vary somewhat, depending on the chosen areas of study. For example, a student who specializes in information systems would be prepared for a career in the application of computers in business or the nonprofit sector, and typical starting positions would include programmer, systems analyst, and database designer. A student who specializes in systems programming, however, would be prepared for a career in technical-support functions and their management. Typical starting positions in this field would include systems programmer, technical-support engineer, and operations manager. A student who focuses on Internet-related topics could start as a web designer, HTML or Java programmer, or network designer or manager.

Admission Information

The applicant must meet the College of Graduate Studies requirements for admission, as specified in the front section of this Catalog. In addition, the student must have: A cumulative undergraduate grade-point average of 2.75 or better;

1.   Completed either the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT);
2.   A weighted score of 1,000, computed as the test score, plus 200 times the undergraduate grade-point average; if an applicant takes   the GRE, the test score is computed as the average of the verbal and quantitative scores on the examination;
3.   For applicants whose native language is not English:
    a.   A score on the TOEFL of at least 525 (197 for the computer-based test) and
    b.   A score at the 5th percentile or better on the verbal portion of the GRE or GMAT.
4.   An official transcript from each college and university previously attended.

Although the CIS Department makes every effort to honor students' requested dates of admission, this is not always possible. In some cases, it may be necessary to delay the admission date because of the schedule of required courses. For international students, complete application materials, including a completed application form, transcripts for all college-level work, appropriate test scores (GMAT or GRE), and TOEFL scores, must be received by March 15 for the summer term and May 15 for fall admission consideration. Domestic applicants must submit complete application materials at least six weeks before the start of the summer, fall, and spring terms.

The Master's Programs Committee of the College of Business Administration meets periodically to review admission requirements. Please call the Graduate Business Advising Office at (216) 6873730 to obtain additional information.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

MCIS Bridge Program for International Students

Students who have completed a three-year science or engineering degree from institutions outside the U.S. may be eligible for the College of Business Administration "Bridge" program for the MCIS degree. The bridge program requires students who qualify to complete an additional twenty-four credits of graduate courses in the field. The bridge courses should be selected after consulting with the program advisor. These courses may be taken at the beginning or at the end of the program of study.

For more information about the bridge program, please call the Graduate Business Programs Advising Office at (216) 687-3730. The office is located in Ahuja Hall 219.

Non-Degree Students

Non-degree students and those awaiting admission to the master's degree program in MCIS are allowed to take a maximum of twelve credit hours from the courses listed below. These preparatory courses provide students with a basic background in CIS. These courses do not count toward the requirements for the MCIS degree and generally are waived for students with an undergraduate degree in CIS or a closely related field.

  CIS 500 Introduction to Programming (4 credits)
  CIS 505 Analytical Methods in Computer Science (4 credits)
  CIS 506 Data Structures and Algorithms (4 credits)
  CIS 530 Database Systems and Processing (4 credits)
  CIS 535 Language Processors (4 credits)
  CIS 540 C/C++ for Systems Programming (2 credits)
  CIS 545 Architecture and Operating Systems (4 credits)
  CIS 568 Object-oriented Design and Programming (4 credits)

To register for more than twelve graduate credit hours, non-degree students are required to meet regular admission standards for the MCIS program. Students who have not been admitted to a graduate degree program may not take 600-level or above CIS or IST courses.

The Preparatory Program

In order to prepare students for graduate courses in computer and information science, the program provides a basic background in three areas: analytical methods, programming languages and data structures, and systems programming. The grades for the courses taken in the preparatory sequence are computed into the student's grade-point average, but the credit hours do not count toward the requirements for the Master of Computer and Information Science degree. Students should call the CIS Department at (216) 687-4760 to schedule an appointment with an MCIS advisor prior to registering for classes.

Analytical Methods

OMS 500 Mathematical Models for Business (2 credits)
OMS 503 Statistical Methods for Business Decisions (3 credits) (Prerequisite: OMS 500)
CIS 505 Analytical Methods in Computer Science (4 credits) (Prerequisite: OMS 500)

Application Programming

CIS 500 Introduction to Programming (4 credits)
CIS 506 Data Structures and Algorithms (4 credits) (Prerequisites: CIS 500 and OMS 500)
CIS 530 Database Systems and Processing (4 credits) (Co-requisite: CIS 506)
CIS 568 Object-oriented Design and Programming (4 credits) (Prerequisite: CIS 506)

Systems Programming

CIS 535 Language Processors (4 credits) (Prerequisite: CIS 506)
CIS 540 C/C++ for Systems Programming (2 credits) (Co-requisite: CIS 506)
CIS 545 Architecture and Operating Systems (4 credits) (Prerequisite: CIS 506)
The Department of Computer and Information Science may waive part or all of the preparatory program, based on the student's prior background or experience.

The MCIS Program

The MCIS program consists of thirty-one semester hours of approved courses for students who complete a graduate thesis, or thirty-three hours for those who do not. Prior to satisfactory completion of the entire preparatory program, no course may be taken toward the fulfillment of the graduate degree requirements without prior written permission of the student's advisor.

Students whose native language is not English must take GAD 501 (Business English) and GAD 502 (Intermediate Business English) if their verbal score on the GMAT or GRE is between 5th and 15th percentile; or GAD 502 only if their verbal scores are above the 15th percentile but below the 20th percentile. Students who score at the 20th percentile or above need not take either GAD 501 or GAD 502. Students whose scores in the quantitative section of the GMAT or GRE are below the 25th percentile must take OMS 500, regardless of mathematics courses previously completed. Regardless of whether a student completes a thesis, the program:

1. Must include a nine-credit core consisting of:
   CIS 600 Computer Architecture (4 credits)
   CIS 601 Graduate Seminar in Computer and Information Science (1 credit)
   CIS 620 Advanced Operating Systems (4 credits)

If a course in the core program is waived based on prior preparation, an advanced course in the same area must be taken in its place.

2. Must include one course in analytical methods beyond the preparatory level. This requirement may be satisfied by CIS 590, CIS 606, CIS 611, or CIS 666.

3. May include up to six hours of credit transferred from another university, if such credit is beyond the level of the preparatory program and has the approval of the CIS department.

4. May include up to nine credit hours of computer-related Cleveland State graduate courses outside of the CIS Department, with prior written approval of the student's advisor, if the student has an undergraduate degree in computer and information science. Students without an undergraduate degree in computer and information science must take all courses in the CIS Department in order to gain adequate professional depth.

5. May choose a maximum of 3 courses from the following list with hours applying to the MCIS degree.
   CIS 524: Comparative Programming Languages (4-0-4)
   CIS 554: Data Communications and Networking (4-0-4)
   CIS 568: Object -Oriented Design and Programming (4-0-4)
   CIS 580: Introduction to Computer Architecture (4-0-4)
   CIS 590: Foundations of Computing (3-0-3)
When a student completes more than three of the listed courses, only 12 hours will apply toward the MCIS degree.

6. No more than five credit hours of CIS 698 (Independent Study) can be counted towards the MCIS degree.

In addition, the program must include either:

1. CIS 699 Master's Thesis Research in Computer and Information Science; and
2. At least twenty-two semester hours of electives beyond the preparatory sequence and core courses. or:
3. At least twenty-four semester hours of electives beyond the preparatory sequence and core courses.

Electives

Electives are divided into eight specialization tracks. Students may choose electives to emphasize depth or breadth. For emphasis on depth, a student must take at least two courses from at least two tracks, and at least one course from three other tracks. For emphasis on breadth, a student must choose at least one course from at least five different tracks. The elective tracks are:

Applied Distributed Systems Track

CIS 630 Enterprise Application Development (4 credits)
CIS 631 Distributed Object Systems (4 credits)
CIS 632 Mobile Computing (4 credits)

Artificial Intelligence Track

CIS 665 Artificial Intelligence Languages and Applications (3 credits)
CIS 666 Topics in Artificial Intelligence (3 credits)
CIS 667 Bioinformatics (4 credits)

Database Track

CIS 611 Relational Database Systems (3 credits)
CIS 612 Advanced Topics in Database Systems (3 credits)

Multimedia and Graphics Track

CIS 657 Computer Graphics and Imaging (4 credits)
CIS 658 Multimedia Computing (4 credits)

Networks Track

CIS 554 Data Communications and Networking (4 credits)
CIS 675 Information Security (3 credits)
CIS 676 Computer Networks (3 credits)

Programming Languages Track

CIS 524 Comparative Programming Languages (4 credits)
CIS 650 Compiler Design (3 credits)

Software Engineering Track

CIS 634 Object-oriented Software Engineering (4 credits)
CIS 634 Object-oriented Software Engineering (4 credits)

Theory and Algorithms Track

CIS 590 Foundations of Computing (3 credits)
CIS 606 Analysis of Algorithms (3 credits)

Note: Any 600-level course, including CIS 693 and CIS 694, but excluding CIS 600, CIS 601, CIS 620, CIS 690, CIS 698, and CIS 699, can be used to satisfy the breadth requirement even if it is not listed in a track.

Master of Fine Arts in

Creative Writing/NEOMFA

Department of English

Rhodes Tower 1815
(216) 687-3951
http://www.csuohio.edu/class/english/degreeprogcertif.html

David Larson, Chair
Jennifer Jeffers, Graduate Program Director
Neal Chandler, Director, Creative Writing
Maggie Anderson, (Kent State University) NEOMFA Director
Michael Geither, CSU Campus Coordinator for NEOMFA

The Program

The Master of Fine Arts in Creative Writing is offered as part of the NorthEast Ohio Master of Fine Arts in Creative Writing, a four-university consortium incorporating the faculty and resources of Cleveland State University, Kent State University, Youngstown State University, and the University of Akron. The degree program offers five different concentrations: fiction, creative nonfiction, playwriting, poetry, and literary translation. Curriculum focuses on the techniques of professional writing and the analysis of literary works from the point of view of the practitioner while electives enable the study of whatever subject area will further the student's writing interests. A required internship offers practical workplace experience from a wide range of fields, including teaching, editing, grant writing, arts marketing, and arts administration.

The program is designed to meet the needs of both part-time and full-time students. Workshops and craft and theory courses are routinely offered in the evenings. Students can register freely across institutional boundaries for graduate courses offered at any of the participating universities and taught either by regular faculty or by visiting resident writers.

A NEOMFA Executive Committee, made up of representatives from each Consortium university, governs the Master of Fine Arts Program in Creative Writing, oversees the subcommittee on the admission of students, appoints NEOMFA graduate assistants, and makes policy decisions for the Master of Fine Arts program. It also hears student petitions that specifically address NEOMFA arrangements or policy.

Faculty Publications and Research

The thirty faculty members of NEOMFA have gained regional and national recognition as creative

writers and literary translators with a distinguished record of publications, performances, and awards. Faculty publication records include over fifty book-length works of poetry, fiction, and translation, and hundreds of short stories and poems published in such journals as American Poetry Review, Field, Kenyon Review, Poetry, Prairie Schooner, Southern Review, and many others. The Playwriting Faculty has a record of performances from university theater programs to professional stages, locally, nationally, and internationally.

Creative writing awards won by Program Faculty include fellowships and/or awards from the National Endowment for the Arts, the Ohio Arts Council, the Pennsylvania Council on the Arts, the West Virginia Arts and Humanities Commission, the Pushcart Prize, the Chilchote Award, the MacDowell Colony, and even ASCAP awards for musical theater. Program Faculty regularly attend conferences, visit other institutions to give readings and workshops, and serve on committees and boards for regional and national organizations for the promotion of the literary arts. In addition, many faculty members are involved with outreach to schools, arts organizations, and regional communities.

For a full listing of program faculty with publications and performances, consult the NEOMFA Web site at http://www.ysu.edu/neomfa/faculty.htm

The English Department is home to the Cleveland State University Poetry Center, publisher of more than 135 books of contemporary poetry since 1971, offering one of the nation's most prestigious awards for a book of poetry, and connecting the University to a national community of poets. Each summer since 1991, the Department of English has also sponsored the Imagination Writers' Workshop and Conference, bringing both emerging and established writers from across the nation to read and teach on campus. In addition, for over thirty years, the University has housed Whiskey Island Magazine, a student-edited literary journal, publishing local, regional, and national work. Resources at other Consortium Universities include the Wick Poetry Center and Wick Center Poetry Books at Kent State, the Youngstown State Poetry Center and Etruscan Press, the Akron Series of Poetry, and the student literary journals, Akros, Luna Negra, and Penguin Review.

Financial Assistance

In almost every case, financial assistance will come through the student's gateway university. At Cleveland State, graduate assistantships in English provide students with an opportunity to teach in the Writing Center, assist faculty on editorial or other academic projects, and in some cases to teach Freshman English classes. All graduate assistantships provide tuition waiver and a stipend. A few tuition waivers may be available for part-time students. Students must apply by February 1, in order to be considered for a graduate assistantship in the following academic year. The English Department also awards tuition scholarships as prizes in annual creative-writing contests and through the Leonard Trawick Scholarship fund.

Career Information

Students interested in a career teaching creative writing at the college or university level should apply to the MFA program (as opposed to the English MA concentration) in Creative Writing. An MFA will by no means ensure a college level teaching job. Substantial publication is increasingly the qualifying factor, but under the professional guidelines which govern such programs, the MFA has become a minimal degree requirement. Program students should select workshops and arrange their studies to help them write as productively as possible. An MFA program is designed to provide focus and to support creative work in ways the rest of the world does not. The quantity and quality of the writing itself, rather than the formal degree, is the proper measure of a writer's success. Therefore, time in the program should be as productive as the student can make it. It is also important for students to plan for a writing life which offers no guarantees of financial reward or of teaching positions. When selecting an internship, it will be useful to keep this writing-life conundrum in mind: few jobs make space for the demands of creative writing, but many jobs demand people with writing skills.

Admission Information

To apply to the NorthEast Ohio Master of Fine Arts in Creative Writing Program:

1.   Complete the Application for Graduate Admission at Cleveland State, checking the "English – Creative Writing NEOMFA" as the intended program of study and checking Master's Degree. To facilitate the process, we strongly recommend that applicants use the online application system at http://www.csuohio.edu/gradcollege/admissions/apply.html.

The submission process requires that an applicant have a baccalaureate degree from an accredited college or university with an overall grade point average of 2.75 or higher and a 3.0 average in courses in English. Applicants must provide transcripts of all previous college work and, for NEOMFA applicants, three letters of recommendation. Students interested in teaching assistantships should submit a sample of academic writing, normally a research paper from an undergraduate course.

2.   Send a one-page statement of purpose, along with a portfolio of fifteen pages of your work in poetry or literary translation or thirty pages of fiction, creative non-fiction, or drama. (Please note that for literary translation submissions, the original work must be included. The original will not be counted toward the page total.) Both the purpose statement and portfolio should be combined into one Microsoft Word document and emailed as an attachment to Maggie Anderson, NEOMFA Director, at neomfa@kent.edu. Be sure to label everything you send with your name and contact information.

Degree Requirements

(48 credits minimum)

Writing Workshops (15 credits)

ENG 602* Students will take 12 hours in their areas of emphasis (fiction, nonfiction, playwriting, poetry, or literary translation) and at least 3 hours in a second area.

Craft and Theory Courses (6 credits)

ENG 512* Students will take at least 3 hours of craft and theory in their areas of concentration; a second craft and theory course must be taken in another area.

Literature Courses (9 credits)

These courses, which focus on the reading of texts, will normally be taken in the Departments of English. Literature courses in languages other than English or in translation may be taken through the language departments.

Electives (9 credits)

Students will take nine hours in an advisor-approved area such as literature, foreign languages and translation, theater, arts administration, fine arts professional writing, or education. These credits may range widely in support of the student's writing interests and projects.

Internship (3 credits

Students will take an internship in a workplace related to their interests and areas of specialization.

Thesis (6 credits)

ENG 699* Normally, students will enroll in three hours of thesis in each of the last two semesters of study. The thesis is to be a manuscript of high artistic quality in the area of specialization. Thesis committees will consist of one thesis advisor and two other program faculty members from at least two consortial universities.

*Indicates Cleveland State University numbering system only. Equivalent courses at other Consortium universities will appear with different numbers.

NEOMFA Courses

The menu of Consortium courses is comprised of the collective graduate offerings of participating departments at all four NEOMFA universities. For an overview, consult the course-offering page on the NEOMFA Web site at www.ysu.edu/neomfa , where specific MFA courses are designated and available literature courses, as well as many electives, are listed for upcoming semesters.

Master of Arts in

Economics

Department of Economics

Rhodes Tower 1715
(216) 687-4520
http://www.csuohio.edu/class/economics/gradprogram.html

Myong-Hun Chang, Chair
Bill Kosteas, Graduate Program Director

Introduction

The primary objective of the graduate program in economics is to develop economists who can meet the demand of the private sector, the not-for-profit sector, and government and are well trained in the tools of economic analysis and measurement. The program stresses a strong foundation in standard economic theory, econometric methods, and their application to problems faced by businesses, the not-for-profit sector, and government agencies. Although the Master of Arts in Economics is designed as a terminal degree program, students who complete the program are well prepared for further graduate study in economics. The program is aimed at students with an undergraduate degree in economics or business, as well as students with undergraduate training in other academic fields.

Faculty Research and Publications

The faculty is actively engaged in original research that spans a broad range of areas within micro- and macroeconomics. Special strengths in research are in the areas of Labor Economics, International Economics, Macroeconomics, Growth and Development, Health Economics, Environmental and Energy Economics, Public Finance, Industrial Organization, Organization Theory, and Computational Economics.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Financial Assistance

Graduate assistantships are available in limited number to qualified students. Assistants receive a stipend and tuition support. Contact the Department of Economics for graduate assistant application information. Two letters of recommendation is required. Other employment opportunities are available on campus. Applications for students seeking a graduate assistantship must be completed by May 1st.

For information on the graduate assistantship policy, see the section on Expenses and Financial Aid: Graduate Assistantships in the front of this Catalog.

Admission Information

To be admitted as a Regular graduate student, the applicant must have a bachelor's degree with at least a 2.75 grade-point average and have successfully completed courses in intermediate microeconomics, intermediate macroeconomics, calculus, and statistics. Students who do not meet these requirements are encouraged to take the requisite courses and/or consider the options described on Non-Degree Admission in this Catalog.

International applicants must provide official TOEFL and GRE (general) test scores received directly from ETS.

Students are advised to begin the program in the fall semester.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

The MA in Economics program requires the completion of 33 credit hours, including seven required courses plus two approved elective courses as follows:

Requirements

ECN 610 Mathematical Economics for Economists (2 credits)
ECN 622 Statistical Methods for Economists (3 credits)
ECN 625 Econometrics (4 credits)
ECN 633 Advanced Microeconomics (4 credits)
ECN 635 Competition and Strategy (4 credits)
ECN 643 Advanced Macroeconomics (4 credits))
ECN 654 Financial Economics (4 credits)

Electives

Select two of the following approved courses for a total of eight credits:

ECN 541 Business Fluctuations and Forecasting (4 credits)
ECN 550 Economics of Law (4 credits)
ECN 574 Environmental and Natural Resource Economics (4 credits)
ECN 582 International Economics (4 credits)
ECN 585 Economics of Development and Growth (4 credits)
ECN 675 Labor Economics (4 credits)

ECN 694 Special Topics in Economics (1-4 credits)
ECN 695 Seminar in Economics (1-4 credits)

Master of

Education

College of Education and Human Services

Rhodes Tower 1401
(216) 687-4625
http://www.csuohio.edu/cehs/programs/graduate.html

Programs of Study

CASAL Department

Administration
   Educational Administration
   First Ring Leadership
   Organizational Leadership
Adult Learning and Development
Counselor Education
   School Counseling
   Community Agency Counseling
Supervision

Health, Physical Education, Recreation, and Dance Department

Community Health Education
Exercise Science
Human Performance
School Nurse (Licensure available)
Sport Management
Sport Management/Exercise Science
Sport Management/Sport and Exercise Psychology (Temporarily Suspended)
Curriculum and Instruction Specializations
   Health and Physical Education
      Human Performance
      Sport and Exercise Psychology (Temporarily Suspended)
      School Health Education (Licensure available)

Department of Teacher Education

[Curriculum and Instruction specializations](#)
  [Early Childhood Education](#)
  [Elementary Education](#)
  [Middle Childhood (Mathematics and Science)](#)
  [Literacy Development and Instruction (Reading, TESOL, Bilingual Education, Adult Literacy)](#)
  [P-6 Mathematics Specialist](#)
  [Secondary Education](#)
    Art
    English/Language Arts
    Foreign Languages
    Mathematics
    Science
    Social Studies
  [Special Education](#)
    [Early Childhood Intervention Specialist](#)
    [Mild/Moderate Intervention Specialist](#)
    [Moderate/Intensive Intervention Specialist](#)

[Department of Curriculum and Foundations](#)

[Educational Technology (C&I)](#)
[Educational Research (C&I)](#)
[Gifted and Talented Learners (C&I)](#)
[Urban Secondary Teaching (MUST program)](#)

Introduction

Programs leading to the Master of Education degree are designed for individuals seeking to work as professional educators of children, youth, and adults. Many graduates seek employment in elementary and secondary schools. Some specializations are oriented toward business and community settings and prepare graduates to work in higher and adult education, social service agencies, corporate training centers, corporate fitness centers, community health centers, wellness/fitness centers, sports clubs, and outdoor/park recreational facilities. All courses in the programs are offered in the late afternoon and evening in order to accommodate students who wish to maintain full-time employment. During the summer term, courses are offered on a full-day schedule to permit full-time study.

Master of Education programs are offered in four departments within the College: Curriculum and Foundations; Counseling, Administration, Supervision, and Adult Learning (CASAL); Teacher Education; and Health, Physical Education, Recreation, and Dance. The Department of Curriculum and Foundations is responsible for courses in the College Core. The Curriculum and Foundations Department also is responsible for courses in the Curriculum and Instruction specializations in the following areas: Educational Technology; Educational Research; and Gifted

and Talented Learners. Initial teaching licensure in Secondary Education is also available in this department as a master's degree in Urban Secondary Teaching (the MUST program). The CASAL Department offers degrees in Administration, Counseling, Supervision, and Adult Learning and Development. The Department of Teacher Education is responsible for the Curriculum and Instruction specializations in Early Childhood Education, Elementary Education, Middle Childhood (Mathematics and Science), Literacy Development and Instruction (Reading, TESOL, Bilingual Education, Adult Literacy), Secondary Education (all content fields, including Foreign languages and art), and Special Education (Early Childhood/Special Education, Mild/Moderate Educational Needs, Moderate/Intensive Educational Needs). The Health, Physical Education, Recreation, and Dance Department offers the Curriculum and Instruction specialization in Health and Physical Education, including a combined master's and multi-age health licensure, as well as programs in Sport Management, Exercise Science, and Community Health Education. See the brief descriptions of each program and specialization below.

Faculty Research and Publications

College of Education and Human Services faculty members pursue a wide variety of research in six major areas:

1 Equity issues, including race and ethnicity, gender, and socio-economic disadvantage.
2 Educational/developmental consequences for special needs populations frequently associated with urban environments, including high-risk and premature infants; preschool populations; juvenile delinquents; mentally challenged, learning disabled, and behavior-disordered children; and gifted and talented students from low socio-economic, racially, and ethnically diverse backgrounds.
3 Urban educational programs, including teaching English to speakers of other languages, literacy, and mathematics competencies, classroom management and discipline, social skills training, management of urban schools, counseling special urban populations, early childhood interventions (Head Start and day care), Reading Recovery, teacher induction programs, health, wellness, and physical education.
4 Problems of adults in contemporary urban society, including stress, sport law, sports management, exercise science, health, and leisure-time uses.
5 Foundations of urban education, including life-span development and learning, comparative educational policy, curriculum/methods, teacher education, and guidance and counseling in schools and the community.
6 Legal issues in education and major educational policy issues.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Accreditation

The Master of Education degree program is fully accredited by the National Council for Accreditation of Teacher Education (NCATE) and the Ohio Department of Education. The Community Agency Counseling and School Counseling programs are accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Financial Assistance

A limited number of graduate assistantships are available in each department, in the Dean's Office, and through funded projects. Graduate assistants have teaching, research, and/or administrative responsibilities for which they receive financial support. For applications and information, contact the departments directly.

Career Information

The Master of Education degree qualifies graduates to move from entry-level positions in education to career positions with increased leadership responsibility. The degree enables classroom teachers to advance their careers, and provides initial certification/licensure for those who seek school administration, supervision, and counseling positions. Certain specializations provide initial entry or career mobility for educators in business or community settings. Prospects for career advancement in school settings are favorable at this time because of population shifts and staff retirements. Opportunities in business and community settings have increased as society has become more committed to life-long education for adults.

Admission Information

The following requirements must be met by each candidate applying to the master's program:

1.   Fulfillment of College of Graduate Studies requirements for admission, as described in this Catalog.

2.   Application to the Graduate Admissions Office for admission to the Master of Education program in one of the specialization areas. An area of specialization must be noted on the admission application form.

3.   Submission to the Office of Graduate Admissions of one official transcript from each college and/or university where existing degrees were completed. Transcripts must come directly from the degree-granting institution.

4.   Two letters of recommendation (for counseling programs only).

5.   A score of at the 50th percentile on the Miller Analogies Test, or a score at the 50th percentile or above on the General section of the Graduate Record Examination. However, a student applying for any program except Counseling is exempt from this requirement if:

   a.   The baccalaureate degree is less than six years old at the time of application AND the undergraduate cumulative grade-point average is at least 2.75; OR
   b.   The baccalaureate degree is more than six years old at the time of application AND the

undergraduate cumulative grade-point average is at least 3.0; OR

   c.   The student has completed twelve or more semester credits of Cleveland State graduate course work (including EDB 601 or HPR 601) AND received a grade of B- or better in EDB 601 or HPR 601 and grades of B or better in the other courses.

Note: Students attempting to meet this condition will be admitted as Conditional Graduate Students, are eligible for an advisor, and will be able to file a Program of Study.

Upon formal admission to the College, students must prepare a Program of Study with the assistance of an assigned advisor.

Note: Before completing an admission application, individuals who wish to obtain Ohio Department of Education licensure in order to work in public schools should obtain counseling from the Education Student Services Center, Rhodes Tower 1401, telephone (216) 687-4625.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Graduate Status

Regular Graduate Student status is a category applied to students who have met all admission requirements designated by the College of Graduate Studies.

Conditional Graduate Student status carries registration restrictions. It pertains to:

(a) international applicants who meet College of Graduate Studies and Program grade point and admission examination (GRE, GMAT, MAT, etc.) requirements, but fall short of meeting College of Graduate Studies English Language proficiency requirements; or
(b) Students who fail to meet all College of Graduate Studies and program requirements for Regular Admission, but still show strong promise of being successful in their chosen graduate program and attempting to meet the twelve-semester credit criterion noted above as a condition for regular graduate status. Students admitted under Conditional Graduate Student status will have one calendar year to satisfy this condition.

Non-degree Graduate Student status is an admission category applied to students who wish to take courses in education, or other subject areas, but who have not been admitted to a degree program. Such students may later be admitted to a degree program upon application, if they present required documentation and meet admission requirements. At twelve credits, Non-degree students are required to apply and be formally admitted before continuing with their course work to earn a graduate degree.

Graduate Licensure Admission

An individual with a baccalaureate degree from a college or university with full academic accreditation who is seeking a State of Ohio teaching or school services license may apply for

Graduate Licensure admission status. This status is for individuals who are not seeking a master's degree. Requirements for admission are generally the same for Regular graduate degree status. Refer to the section on Admission to the College of Graduate Studies: Graduate Certificate and Licensure Admission in this Catalog for admission procedures and requirements.

Transfer of Credits

In addition to the regulations of the College of Graduate Studies (including the six-year limit on course work), credits transferred from another university for application toward the MEd degree are subject to the following conditions:

1   Approval of the program and departmental committee.
2   No more than nine hours of graduate credit may be transferred, including a maximum of six credits earned for workshops from other universities. The credits must not have been used to fulfill the requirements for any other degree.
3   Students must have twelve semester hours of graduate (500- to 800-level) course work completed at Cleveland State and a grade-point average of or better to have transfer credit recorded on their transcript.
4   Not more than one-half of a student's total graduate program may be a combination of transfer credit and credit by examination.
5   All credits requested in transfer must carry a letter grade of A, A-, B+, or B in graduate courses. No S/F or S/U graded courses may be transferred. Petitions are not considered for an exception to this requirement.

Program of Study

A Program of Study document, showing all course work and other aspects of the master's program, must be filed. The Program of Study should be developed in consultation with an advisor before the mid-point in the student's program and forwarded to the Education Student Services Center, Rhodes Tower 1401. No elective courses should be taken without the advisor's approval. Any subsequent changes in the student's program should be approved, in advance, by the advisor and recorded on the approved Program of Study form on file in the Education Student Services Center, Rhodes Tower 1401.

Practicum and Student Teaching Eligibility Requirements for Teacher Licensure

Eligibility for practicum or student teaching placement requires that student interns have satisfactorily met all of the conditions noted below. If these conditions are not completely fulfilled, field placement will be denied and the student will be administratively withdrawn from relevant course work. For questions, please contact the Office of Field Services (RT 1344; 216-687-4616) or the Education Student Services Center (RT 1401; 216-687-4625).

1   At the time of placement application, all student interns must have an approved Program of Study on file with the Education Student Services Center (RT 1401) and have signed the

Verification of Good Moral Character Statement on that form. In addition, Early Childhood majors must supply Field Services (RT 1344) with three acceptable letters of recommendation attesting to their good moral character and suitability for any pre-K teaching assignment.

2   Interns must have achieved and maintained an overall grade-point average of at least 3.0 for all 400and-above-level work required for licensure. No more than six credits of 400-level-or-above course work with a grade of C may be used to meet licensure requirements. Course work may be repeated with the approval of the COEHS Advising Office; however, it should be noted that repeating a graduate course does not eliminate any earlier recorded grade for that course on your transcript or its continued inclusion in the calculation of Hours Earned, Quality Points, and GPA.

3   All interns must submit a negative TB (tuberculosis) test report (Mantoux version) to the Office of Field Services. If seeking licensure in Early Childhood or as an Intervention Specialist in Special Education (Early Childhood, Mild/Moderate or Moderate/Intensive), documentation must also be submitted verifying full immunization against Hepatitis B (three shots). In addition, candidates for Early Childhood licensure must supply proof of having satisfactorily passed a physical examination.

4   Interns who do not already hold an Ohio teaching license or certificate must complete a civilian background fingerprint check and submit a valid copy of a Clearance Report from the Ohio Bureau of Criminal Identification and Investigation (BCI) to Field Services. For those who have not resided in Ohio for at least five continuous years, a Federal Bureau of Investigation (FBI) background check is also required. Electronic fingerprinting and BCI checks can now be obtained by appointment in the ESSC (RT 1401) with prior fee payment at the Office of Treasury Services (UC 460).

5   Separate completion and submission of an online application (https://coehsplace.csuohio.edu/ofs/index.cfm) for practicum or student teaching placement is needed. Applications for summer and fall placements must be received by February 15; those for spring placements must be received by September 15. Summer placements are made at the discretion of program faculty and may be limited and/or restricted. Please note that in addition to submitting an application, students must ultimately register for practicum and student teaching.

6.   Placement requires satisfactory completion of all specified prerequisite course work. (Please see your program checklist for a complete list of these courses.) Where mandated by specific programs, ongoing development of a professional portfolio may also be required to confirm satisfactory progress in achieving program outcomes before practicum and student teaching placement.

7.   Eligibility for student teaching further requires that students have taken all required Praxis II examinations prior to the start of student teaching. If not initially sent to CSU by ETS, score reports should be submitted to the Office of Field Services.

Exit Requirements

Each participant in the master's program must select one of the following exit requirements when planning the program of study:

1. Comprehensive Examination (no credit).
2. Project (1 to 6 credits).
3. Thesis (1 to 6 credits).
4. Other exit option approved by individual programs (contact program faculty for details).

Comprehensive Examination Option

The written comprehensive examination is prepared, administered, and evaluated by the student's department. The examination is usually taken in the final semester of enrollment. Students must be registered for at least one credit hour during the semester in which they take the examination, have a program of study on file in the Education Student Services Center, and must have filed an application for graduation (see the Application for Graduation section in this Catalog). When the student's completed examination has been evaluated, the department chair certifies the results to the Associate Dean. Should the student's comprehensive examination be judged unsatisfactory, the student is permitted to take a second examination within one year of the first test date. A third examination is not permitted.

Thesis/Project Option

MEd candidates who do not take the comprehensive examination must complete either a project or a thesis as their culminating degree activity. Students must be registered for thesis/project credit each semester (excluding summer unless they are graduating during that semester) until the thesis or project is completed.

Thesis/Project Definitions

1 Thesis: The thesis must be a written, in-depth, scholarly investigation of a specific area related to the major emphasis of the student's program of study.

2 Project: The project is usually a manuscript that documents the application of educational theory to practice and demonstrates the student's capacity for evaluation and synthesis. In some instances, other media (e.g., film, videotape, computer program) may constitute the major product, but these must be accompanied by written documentation, explaining the application, value, and limitations of the product. In all cases, a project must include references to related works and must be presented in a form consistent with educational research publications.

Students considering the project or thesis options should contact the Education Student Services Center in the College of Education and Human Services (Rhodes Tower 1401, telephone (216) 687-4625) to request Thesis or Project Option guidelines. Students also should request a copy of the Thesis and Dissertation Format Guidelines from the College of Graduate Studies web site http://www.csuohio.edu/gradcollege/students/thesis/.

Graduation Requirements

Before a Master of Education degree can be conferred, the student must:

1. Complete at least 30 to 32 credit hours of course work at the 500 level or above.
2. Achieve a grade point average of 3.0 or higher.
3. File the required graduation application.
4. Satisfactorily complete all exit requirements.
5. Register for at least 1 graduate credit hour of course work in the semester of graduation, as well as in the semester in which the comprehensive examination is taken. As noted above, students choosing the thesis or project option must be registered for thesis/ project credit each semester (excluding summer, unless they are graduating during that semester) until the thesis or project is completed.

Degree Requirements

The Master of Education degree program consists of these academic components:

1. College and/or Curriculum Cores: ten to thirteen credits.
2. Area of Concentration/Specialization: sixteen to forty-eight credits.
3. Electives: up to twelve credits.

Administration

Educational Administration Program

Thirty-four credit hours leading to the Master of Education degree, plus twelve postmaster's credits for licensure.

Introduction

The Cleveland State University educational administration and supervision program is based on a conceptual framework of the Administrator/ Supervisor as a Visionary Practitioner. Graduates achieve outcomes reflecting the five knowledge bases that compose this model: organizational change, relational, developmental, contextual, and ethical. These knowledge bases are applied to the programs within the environments of urban and suburban schools, which are culturally diverse and include students with disabilities.

The program enables participants to gain the conceptual, technical, and theoretical knowledge in the human resources area needed to assume principalship or other entry-level administrative positions. Key areas explored in the program are curriculum, supervision, guidance, personnel administration, community relations, school management, and school law. In addition to a master's degree, a candidate for a professional administrator license must complete two years of successful teaching under a professional license at the age levels for which the principal licensure is sought; a State Board of Education examination; an entry-level program; and other requirements the State of Ohio may establish.

The recently revised regulations governing licensing of school administrative personnel in the State of Ohio may change course requirements. Please contact the Department of Counseling, Administration, Supervision, and Adult Learning (CASAL) at (216) 687-4613 for further information.

Interested applicants should specify the Master of Education, with a specialization in either Principal I (grades PK-9) or Principal II (grades 4-12) on the Application form for Graduate Admission.

Program of Study College Core

(11 credits)
Educational Research and Technology
  EDB 601 Educational Research (3 credits)
  ETE 501 Technology Strand (2 credits)

Social Foundations

One of the following courses:
EDB 604 Social Issues and Education (3 credits)
EDB 606 Philosophy of Education (3 credits)
EDB 608 School and Society in the American Past (3 credits)
EDB 609 Comparative and International Education (3 credits)

Human Development

One of the following courses:
EDC 501 Child Development (3 credits)
EDB 620 Psychology of the Adolescent Learner (3 credits)
EDB 628 Psychology of Learning and Instruction (3 credits)

Program Requirements

(23 credits)

The Master of Education with a specialization in Educational Administration includes the following requirements:

EDB 612 Curriculum Theory and Instruction (3 credits)
ADM 613 School Law (4 credits)
ADM 614 Administration Principles and Practice (4 credits)
ADM 615 Instructional Leadership and Pupil Personnel Administration (4 credits)
ADM 618 Staff Personnel Administration (2 credits)
ADM 642 Collective Bargaining and Contract Management (2 credits)
ADM 676 Clinical Supervision and Professional Development (4 credits)

Postmaster's Licensure

(12 credits)

Principal I (ages 3-14 or grades PK-9)

ADM 681 Elementary School Administration: Theory and Practicum II (2 credits), and
ADM 682 Middle School Administration: Theory and Practicum II (2 credits), or

Principal II (ages 8-21 or grades 4-12)

ADM 682 Middle School Administration: Theory and Practicum II (2 credits), and
ADM 683 Secondary School Administration: Theory and Practicum II (2 credits)
ADM 643 School Finance and Economics (4 credits)

ADM 677 Legal and Policy Issues in Education (4 credits) or ADM 674 Special Education Law (4 credits)

Culminating Activity

Select one of the four options: comprehensive examination, project, thesis, or professional portfolio. Completed portfolios are due to faculty advisors on November 1st for those graduating in the Fall Semester or April 1st for those graduating in the Spring Semester. Dates and deadlines for other options are available from the Education Student Services Center (RT 1401).

First Ring Leadership Academy

Introduction

The First Ring Leadership Academy (FRLA) is nationally recognized as an innovative pathway to school leadership preparation. The Academy was created through a partnership between Cleveland State University's College of Education and Human Services and First Ring School Superintendents' Collaborative, which represents thirteen school districts surrounding the city of Cleveland. As a state-of-the-art leadership preparation and alternative principal licensure program, the Academy prepares school leaders to meet the unique challenges facing First Ring schools, such as student mobility, poverty, inequity, and the achievement gap. First Ring Superintendents nominate talented aspiring or practicing school leaders to apply to this prestigious program. An acceptance committee made up of First Ring superintendents, the First Ring Leadership Academy Executive Director, and CSU Educational Administration Faculty members review nominees and establish a cohort of the best candidates based on detailed applications, which include essays on leadership.

The First Ring Leadership Academy's fifteen month, twenty-two credit-hour program provides participants with the opportunity to build a portfolio of authentic and field-based leadership work. Participants meet for eleven, two and a half day sessions where they learn and practice leadership skills such as creating a mission and vision, making global connections, monitoring and influencing the change process, raising student achievement, communicating the right messages, influencing public policy, building community relationships, and managing building personnel. Participants design their own learning plans, align them with the needs of their First Ring school district, and continually adjust the plans throughout the program and beyond. The First Ring Leadership Academy emphasizes strong writing skills and requires participants to evaluate each other's written work at every session.

The First Ring Leadership Academy provides aspiring and practicing school leaders with an opportunity to practice taking calculated risks in a safe and supportive environment. Participants agree to rules of engagement that protect the rights and confidences of cohort members. The Academy provides participants with many opportunities to build a network of professional friends, upon whom they can rely throughout their careers as school leaders. The Academy also offers graduates of this program ongoing professional development and support.

The First Ring Leadership Academy prepares the next generation of leaders by creating a pool of exemplary candidates from which First Ring School Superintendents can hire for administrative positions.

Please contact Dr. Deborah Morin, Executive Director, First Ring Leadership Academy, with questions: (216) 687-9209.

Program Requirements

I. FRLA Requirements

Students who already hold a master's degree may apply for a principal's license after completing these requirements and meeting Praxis II requirements.

First Term (Fall)
  CEL 600 Charting your Course for Leadership (2 credits)
  CEL 603 Leading with Mission, Vision, & Strategy (2 credits)
  CEL 606 Leading Instructional Technology (2 credits)
Second Term (Spring)
  CEL 609 Leading the Continuous Improvement Process (2 credits)
  CEL 612 Data Driven Decision-Making (2 credits)
  CEL 615 Leading Curriculum and Instruction (2 credits)
Third Term (Summer)
  CEL 618 Leading Communication Interactions (2 credits)
  CEL 621 Influencing Public Policy—Trip to Harvard University (2 credits)
Fourth Term (Fall)
  CEL 624 Leading the Learning Organization (2 credits)
  CEL 627 Representing Your School in the Community and Self Development Strategies (2 credits)
  CEL 630 Capstone Conference (2 credits)

II. Master's Degree and Licensure

Master's degree and passage of Praxis II are required to apply for licensure.

College/Program Core

Educational Research and Technology
  EDB 601 Educational Research (3 credits)
   ETE 501 Technology Strand (Credit by exam available) (2 credits)
Social Foundations (Select one based on advisor approval)
  EDB 604 Social Issues and Education (3 credits)
  EDB 606 Philosophy of Education (3 credits)

EDB 608 School and Society in the American Past (3 credits)
EDB 609 Comparative and International Education (3 credits)
Human Development (Select one based on advisor approval)
EDC 501 Child Development (3 credits)
EDB 620 Psychology of the Adolescent Learner (3 credits)
EDB 628 Psychology of Learning and Instruction (3 credits)

Specialization

EDB 612 Curriculum Theory and Instruction (3 credits)
ADM 613 School Law (4 credits)
ADM 676 Clinical Supervision and Professional Development (4 credits)
ADM 642 Collective Bargaining and Contract Management (2 credits)

Culminating Experience/Exit Requirement

(select one of the following)
Comprehensive Examination (no credits),
Project (EDA 698) (1-4 credits), or
Thesis (EDA 699) (1-4 credits)

Note: First Ring Leadership Academy students who hold master's degrees also have the option of earning an Educational Specialist degree (EdS) in Administration (with or without licensure). Interested students should contact the First Ring Leadership Academy Office at (216) 687-9209 to arrange contact with an advisor.

Organizational Leadership

Cleveland State University's College of Education and Human Services Masters of Education with a Specialization in Organizational Leadership is an interdisciplinary course of study drawing from the Colleges of Business, Urban Affairs, Liberal Arts and Sciences, and Education and Human Services. Graduates of this program will be able to make executive decisions as school leaders having learned best leadership practices from other fields. Graduates, who have successfully completed the 39 credit program and who have passed the required Praxis II exam, may be endorsed for principal licensure through Cleveland State University.

This program is job-embedded and school-based, providing graduates with hands-on school leadership experiences from a local, regional, national, and global perspective. Throughout the program, students may elect to volunteer in area institutions that make up the fabric of their community. Students will be required to compile a portfolio of work, documenting their field-based research, as well as their coursework. Key areas explored in the program are management and organizational behavior, ethics, local history, school law, city management, conflict management, and public relations in a school setting.

Applicants must meet the requirements of and be admitted to the Cleveland State University College of Graduate Studies.

Prerequisites/Eligibility

Candidates for Principal Licensure must hold a master's degree in School Administration (or completed comparable coursework to CSU's M.Ed programs) and complete 2 years of successful teaching under a provisional or professional license at the age levels for which the principal license is sought.

Program of Study

(39 credits)
ADM 613 School Law (4 credits)
ADM 675 Public Relations and Public School (3 credits)
EDB 601 Educational Research (3 credits)
EDB 609 Comparative and International Education (3 credits)
EDB 628 Psychology of Learning and Instruction (3 credits)
ETE 501 Technology Strand – online (2 credits)
CEL 633 Survey (1 credit)
CEL 636 Capstone (1 credit)
HIS 500 Local History Seminar (4 credits)
MLR 501 Management and Organizational Behavior (3 credits)
PAD 634 Ethnics in the Public Sector (4 credits)
PAD 619 Special Topics in Public Administration: City Management (4 credits)
UST 572 Conflict Management (4 credits)

Adult Learning and Development Program

Thirty-five to thirty-six credit hours leading to the Master of Education degree.

Introduction

Learning is a life-long process. Today's rapidly changing world requires adults to learn new ways of doing their jobs or to change careers several times throughout their lives. This new reality requires adults to return to educational institutions for classes, to partake in on-the-job training and development courses, and to attend continuing professional education seminars in order to achieve new career goals. The influx of adult learners into adult education venues has resulted in a demand for qualified adult educators to assist adult learners as they cope with the effects of an ever-changing world.

Adult educators are employed to plan, teach, administer, coordinate, and evaluate programs for adult learners. They work in many different types of settings, such as higher education, business and industry, labor unions, GED/ABLE programs, cooperative extension services, community agencies, professional continuing education programs, museums, health education centers, hospitals, libraries, and correctional institutions.

The purpose of this program is to prepare present and future adult educators with the theories, competencies, and knowledge that will help them plan, teach, and administer programs for a diverse population of adult learners in a variety of settings. The MEd program is committed to providing adult educators with a cognizance of the issues and challenges confronting adult educators in diverse learning environments. Theories, philosophies, history, and practices concerning adult learning and development, teaching adult learners, and program planning and administration are emphasized through a variety of courses throughout the program. Students also gain practical experience through participation in internships.

Program of Study College Core

Educational Research and Technology

(12 credits)
  EDB 601 Educational Research (3 credits)
  ETE 501 Technology Strand (2 credits)

Social Foundations

  ALD 607 Adult Education in a Changing Society (4 credits)

Psychological Foundations

ALD 605 Psychology of the Adult Learner (3 credits)

Adult Learning and Development Concentration

ALD 645 Organizational Behavior and Change (4 credits)
ALD 663 Planning and Implementing Programs for Adult Learners (4 credits)

Internship

ALD 688 Internship in Adult Learning and Development (4 credits)

Goal-Directed Electives

Each student selects 11-12 credit hours of study from the courses listed below, or from other courses after discussion of career goals with a faculty advisor:

ALD 603 Lifespan Development (3 credits)
ALD 606 Modern Higher Education in a Changing Society (4 credits)
ALD 631 Group Dynamics for Educational Leadership (4 credits)
ALD 646 Human Resource Development for Adult Educators (4 credits)
ALD 664 Instructional Principles for Adult Learners (4 credits)
ALD 665 Student Personnel Services in Higher Education (4 credits)
ALD 679 Planning, Marketing, and Budgeting in Nonprofit Organizations (4 credits)
ALD 689 ALD Portfolio Development (4 credits)
ALD 700 Issues in Multicultural Foundations of Urban Adult Education (4 credits)
CNS 624 Career Development and Information Services (3 credits)
EDB 612 Curriculum Theory and Instruction (3 credits)
EDB 711 Educational Evaluation and Innovation (4 credits)
MLR 577 Managerial Skill Development (3 credits)
MLR 611 Team Problem-Solving Skills (3 credits)
MLR 641 Employment Planning, Personnel Selection and Training (3 credits)

Culminating Activity

One of these options must be selected: comprehensive examination, project, thesis, or portfolio development (ALD 689).

Counselor Education Program

Admission Information

In addition to meeting College of Graduate Studies admission requirements, the Program requires all applicants to:

1   Provide official scores from either the Miller Analogies Test (MAT) or the Graduate Record Examination (GRE); and
2   Provide two evaluation forms completed by professional colleagues or supervisors;

Once admitted to the program with Regular graduate status, and after registering for their first semester, students are assigned faculty advisors who help with preparing their programs of study. For students admitted with non-degree status, course information is available in the departmental office, Rhodes Tower 1419. Students who have not yet been assigned advisors can contact the department office at (216) 687-4612 or (216)687-4613.

Students are not fully admitted into the program until they have passed CNS 620. Thus, this course must be the first taken in the professional counselor education sequence. Other counselor education professional courses may be taken simultaneously, but not before completing this courses (see sequence below). It is important to note that, in accordance with CACREP accreditation, students are evaluated throughout the program on their academic performance, as well as their personal and professional development, which includes mental and emotional wellness. There also are courses in the program where students will be asked to engage in personal growth components that involve self-disclosure.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Sequence

CNS 620 Laboratory in Counseling Techniques is the first course taken in the professional counselor education sequence. Other counselor education professional courses may be taken simultaneously, but not before completing this course. If CNS 620 has not been completed, other courses that may be taken concurrently are: EDB 601, ETE 501, ALD 603, CNS 604, CNS 611, and CNS 617. Once CNS 620 has been completed, students may take courses other than those listed above. However, students are responsible for knowing and meeting the prerequisites for each course listed in the course descriptions in this Catalog.

Exit Requirements

A culminating activity is required of all students. Students in the Community Agency Counseling Program may choose to meet this requirement by providing evidence that they have taken and

passed the Ohio professional Counselor Licensure Exam (OHIO PCLE). Similarly, students in the School Counseling Program may choose to meet this requirement by providing evidence that they have taken and passed the Praxis II School Guidance & Counseling Specialty Exam (Test #20420) required for licensure and requesting that an official copy of their score report be sent to the College by designating Cleveland State University (Institutional Code 1221) as a Score Recipient when completing Item #12 on the registration form. While the Praxis II exam may be taken at any time, students are encouraged to register for the test during their last year in the program. Registration materials are available online at www.ets.org/praxis or can also be obtained at Cleveland State University's Counseling & Testing Center (Rhodes Tower, Room 1237). Other options for meeting the exit requirement include successful completion of a comprehensive exam, thesis, or project— details of which can be obtained from the Department of Counseling, Administration, Supervision, and Adult Learning and Development (RT 1419, 216-687-4612). Students who elect to meet the exit requirement by taking a comprehensive exam and fail it, may retake the exam one time and have one year in which to do so.

School Counseling

Forty-eight credit hours leading to the Master of Education degree.

Application Deadlines

Summer/Fall admission applications must be completed by January 21st. Spring admission applications must be complete by August 31st.

Introduction

The school counseling program is accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP). The program is based on the conceptual framework of the School Counselor as a Facilitator of Human Development and Professional Program Manager. This model envisions the professional school counselor as a program manager who has the skills to assess, develop, improve, manage, and evaluate a counseling program that is comprehensive and based on the development of student competencies. The foci of the comprehensive program are developmental (activities provided for all students to foster their development), preventive (activities centered on the identification of students who are highly at risk of acquiring blocks to their development and removal of those blocks), and remedial (activities to help students who are struggling with problems that are impeding their development). The school counseling program at Cleveland State University is a forty-eight-semester- hour concentration leading to a Master of Education degree. There are two paths to licensure as a school counselor in the State of Ohio. One track is for licensed or certified teachers and the other track is for non- teachers.

Clinical and Field-Based Experience

There are two separate clinical, field-based courses. The first is CNS 680, Counseling Practicum. This is a one-semester course requiring 100 hours of clinical field experience. Counseling Practicum is offered in the fall and spring semesters. The second clinical, field-based experience is CNS 685, Internship in School Counseling. This is an intensive, two-consecutive-semester learning experience of supervised counseling in a school setting. Internship is offered as a fall-spring sequence only. Prerequisites for Practicum and Internship are listed under the course descriptions in this Catalog. Prerequisites are strictly enforced by counseling faculty.

Eligibility for Counseling Practicum (CNS 680)

Students plan their programs so they can apply for practicum two semesters in advance of the term in which they wish to take it. Applications are available in the CASAL Department office, Rhodes Tower 1419. In addition to the application, there is a mandatory practicum-orientation meeting. Applicants for practicum will be notified of the meeting date and time after they submit their practicum applications to their advisors. To be eligible to register for practicum, students must have passed the following courses: CNS 617, CNS 620, CNS 622, CNS 623, CNS 624, and CNS 678.

Eligibility for School Counseling Internship (CNS 685)

Students plan their programs so they can apply for internship two semesters in advance of the term in which they wish to take it. Applications are available in the CASAL Department office, Rhodes Tower 1419. In addition to successful completion of the practicum (CNS 680) and all practicum prerequisites, to be eligible for internship students must have passed CNS 679 and CNS 706.

Program of Study

(48 credits)

Screening Course

CNS 620 Laboratory in Counseling Techniques (3 credits)—first course to be taken after acceptance into the Counseling Program

Research in Behavioral Sciences

  EDB 601 Educational Research (3 credits)
  ETE 501 Technology Strand (2 credits)

Cultural Foundations and Social Issues

  CNS 604 Cultural and Social Foundations in Counseling (2 credits)

CNS 617 Ethical and Legal Issues in Counseling (3 credits)

School Counselor Practices and Principles

CNS 678 Foundations of School Counseling (3 credits)
CNS 679 Techniques in School Counseling (3 credits)

Human Development

ALD 603 Lifespan Development (3 credits)

Individual Counseling

CNS 622 Individual Counseling: Theory and Process (3 credits)
CNS 670 Counseling Children and Adolescents (3 credits)

Group Process

CNS 623 Group Process and Practice (3 credits)
Note: Active involvement in a personal growth group is usually a required part of this course.

Assessment and Diagnosis

CNS 611 Appraisal in Counseling (2 credits)
CNS 706 Psychopathology and Diagnosis for Counselors (3 credits)

Career Development

CNS 624 Career Development and Information Services (3 credits)

Clinical and Field-Based Experience

CNS 680 Counseling Practicum (one semester, 3 credits)
CNS 685 Internship in School Counseling (two semesters, 3 credits per semester)

Community Agency Counseling

Sixty credit hours leading to the Master of Education degree in mental health counseling.

Application Deadlines

Summer/Fall admission applications must be received in the Graduate Admissions Office by January 21st. Spring admission applications must be received by August 31st.

Introduction

The main goal of the program is to prepare counselors for roles in community agencies. Graduates who successfully meet educational requirements are eligible to take the Professional Counselor Licensure Examination (PCLE). After successfully passing the examination, graduates are awarded the Professional Counselor (PC) license until they have acquired two years of supervised experience in counseling, obtained after the award of the master's degree. After successful completion of this supervised experience, they are awarded the Professional Clinical Counselor license (PCC).

The program emphasizes a clinical orientation, focusing on theory and skills in counseling (individual, group, and family), assessment, human behavior and development, diagnosis and treatment of mental and emotional disorders, intervention methods, lifestyle and career development, legal and ethical responsibilities, and service-delivery systems.

Clinical and Field-Based Experience

There are two separate clinical, field-based courses. The first is CNS 680, Counseling Practicum. This is a one-semester course requiring 100 hours of clinical field experience. Counseling Practicum is offered in the fall and spring semesters. The second clinical, field-based experience is the two-part Internship in Agency Counseling (CNS 686 and CNS 687). This is an intensive, two-consecutive-semester learning experience of supervised counseling in an agency setting. Internship is offered as a fall-spring sequence only. Prerequisites for Practicum and Internship are listed under the course descriptions in this Catalog. Counseling faculty strictly enforce prerequisites.

Eligibility for Counseling Practicum (CNS 680)

Students plan their programs so they can apply for practicum two semesters in advance of the term in which they wish to take it. Applications are available in the CASAL Department office, Rhodes Tower 1419. In addition to the application, there is a mandatory practicum-orientation meeting. Applicants for practicum will be notified of the meeting date and time after they turn in their practicum applications to their advisors. To be eligible to register for practicum, students must have passed the following courses: CNS 617, CNS 620, CNS 622, CNS 623, CNS 624, and CNS 629.

Eligibility for Agency Counseling Internship (CNS 686 and CNS 687)

Students plan their programs so they can apply for internship two semesters in advance of the term in which they wish to take it. Applications are available in the CASAL Department office, Rhodes Tower 1419. In addition to successful completion of the practicum (CNS 680) and all practicum prerequisites, to be eligible for internship students must have passed CNS 706.

Program of Study

(60 credits)

Research in Behavioral Sciences

EDB 601 Educational Research (3 credits)
ETE 501 Technology Strand (2 credits)

Cultural Foundations and Social Issues

CNS 604 Cultural and Social Foundations in Counseling (2 credits)
CNS 617 Ethical and Legal Issues in Counseling (3 credits)

Cultural Human Development

ALD 603 Lifespan Development (3 credits)

Screening Course

CNS 620 Laboratory in Counseling Techniques (3 credits)–first course to be taken after acceptance into the Counseling Program

Agency Practice

CNS 629 Community Agency Counseling (3 credits)

Group Process

CNS 623 Group Process and Practice (3 credits)
Note: Active involvement in a personal growth group is usually a required part of this course.

Assessment

CNS 611 Appraisal in Counseling (2 credits)
At least one of the following:
CNS 701 Assessment for Counselors (3 credits)
CNS 702 Individual Intelligence Testing (3 credits)
CNS 703 Personality Assessment for Counselors (3 credits)

Intervention and Prevention of Mental and Emotional Disorders

CNS 650 Case Studies and Interventions (3 credits)

Psychopathology and Personality

  CNS 712 Theories of Personality and Counseling (4 credits)

Diagnosis of Mental and Emotional Disorders

  CNS 706 Psychopathology and Diagnosis for Counselors (3 credits)

Career Development

  CNS 624 Career Development and Information Services (3 credits)

Treatment of Mental and Emotional Disorders

  CNS 709 Psychopharmacology for Counselors (3 credits)

Clinical and Field-Based Experience

  CNS 680 Counseling Practicum (one semester, 3 credits)
  CNS 686 Internship in Community Agency Counseling (3 credits)
  CNS 687 Advanced Internship in Community Agency Counseling (3 credits)

Elective Credits

The remaining five credits are elective. Students pursuing PCC licensure in Ohio should fulfill these five elective credits with courses from the clinical course-work offerings in counseling. These are listed on the department Web site at http://www.csuohio.edu/cehs/departments/casal/.

For further information about the Counselor Education Program, contact the Department of CASAL at (216) 687-4613 or go to the department Web site at http://www.csuohio.edu/cehs/departments/casal/ .

Supervision Program

Thirty-two credit hours leading to the Master of Education degree.

Introduction

The Cleveland State University educational administration and supervision program is based on a conceptual framework of the Administrator/ Supervisor as a Visionary Practitioner. Graduates achieve outcomes reflecting the five knowledge bases that compose this model: organizational change, relational, developmental, contextual, and ethical. These knowledge bases are applied to the programs within the environments of urban and suburban schools, which are culturally diverse and include students with disabilities.

The purpose of this program is to prepare department chairs, program supervisors, team leaders, and student-teaching supervisors to develop knowledge and competence in supervising adults and administering material resources to achieve the school's instructional ends. The program emphasizes curriculum development and assessment, instructional support for teachers, analysis of effective teaching, in-service program design, leadership, group dynamics, and change strategies.

Graduates of the program may be eligible for licensure as Administrative Specialists in Curriculum, Supervision, and Professional Development providing they have completed a minimum of two years successful teaching or pupil service experience under an Ohio professional teacher or pupil services license.

The recently revised regulations governing licensing of school administrative personnel in the State of Ohio may change course requirements. Please contact the Department of Counseling, Administration, Supervision, and Adult Learning (CASAL) at (216) 687-4613 for further information.

Program of Study College Core

(11 credits)

Educational Research and Technology

  EDB 601 Educational Research (3 credits)
  ETE 501 Technology Strand (2 credits)

Social Foundations

Select one of the following courses:

EDB 604 Social Issues and Education (3 credits)
EDB 606 Philosophy of Education (3 credits)
EDB 608 School and Society in the American Past (3 credits)
EDB 609 Comparative and International Education (3 credits)

Human Development

Select one of the following courses:
  EDC 501 Child Development (3 credits)
  EDB 620 Psychology of the Adolescent Learner (3 credits)
  EDB 628 Psychology of Learning and Instruction (3 credits)

Supervision Program Requirements

(21 credits)
  EDB 612 Curriculum Theory and Instruction (3 credits)
  ADM 613 School Law (4 credits)
  ADM 615 Instructional Leadership and Pupil Personnel Administration (4 credits)
  ADM 618 Staff Personnel Administration (2 credits)
  ADM 676 Clinical Supervision and Professional Development (4 credits)
  ADM 680 Supervision Practicum (two semesters, 2 credits per semester) Application and permission required before registration.

Exit Requirements

Select one of the three options:
Comprehensive examination, project, or ePortfolio.

Community Health Education Program

Thirty-four credit hours leading to the Master of Education degree.

Introduction

This program provides a multidisciplinary approach for professionals interested in careers in community health education or in the private health care sector. A variety of undergraduate majors (e.g., nursing, gerontology, health education, sociology, psychology, allied health, physical education) may prepare students for employment opportunities in this professional field. A background in anatomy, physiology, and general health is required.

Program of StudyCollege Core

(10 credits)
ETE 501 Technology Strand (2 credits)
HED 550 Theories in Health Education and Health Behavior (4 credits)
HPR 601 Research Methods in Health and Human Performance (4 credits)

Specialization

(24 credits)
HED 551 Organization and Administration of Community Health Education Programs (4 credits)
HED 552 Health Education Program Planning (3 credits)
HED 553 Measurement and Evaluation of Health Education Programs (3 credits)
HPR 680, HPR 681 or HPR 682 Practicum (3-5 credits) (register for 5 credits if elective credit total is 9)

Electives

Select three of the following courses: (9 to 11 credits)
HED 561 Methods and Materials for Health Education (3 credits) (Prerequisite: HED 551, or HED 560, or equivalent)
HED 565 Analyzing Health Data for Grant Writing (3 credits)
HED 570 Pathophysiology of Disease (4 credits)
HED 571 Substance Abuse Education (3 credits)
HED 572 Consumer Health (3 credits)
HED 573 Teaching Human Sexuality (3 credits)
HED 574 Stress Management (3 credits)
HED 575 Nutrition and Physical Activity (3 credits)
HPR 606 Human Development (3 credits)
PED 677 Prevention and Rehabilitation of Cardiovascular Disease (3 credits)

EDB 612 Curriculum Theory and Instruction (3 credits)
HCA 510 Administrative Uses of Epidemiology (3 credits)
HCA 515 Medical Care Organization (3 credits)
HCA 640 Health Care Law (3 credits)
Other approved course (3-4 credits)

Culminating Activity

Select one of three options: comprehensive examination, project, or thesis.

Exercise Science

Thirty-four credit hours leading to the Master of Education degree.

Introduction

In this program, students develop skills to organize and lead exercise programs in a variety of settings, including cardiac rehabilitation centers, corporate- and hospital-based wellness programs, and private physical fitness enterprises. The primary focus of study is exercise physiology and its applications to physical activity programs.

Program of Study College Core

(13 hours)
ETE 501 Technology Strand (2 credits)
HPR 601 Research Methods in Health and Human Performance (4 credits)
HPR 606 Human Development (3 credits) or PED 572 Physiology of Aging (3 credits)
PED 565 Law and Policy Studies in Sport and Physical Education (4 credits)

Specialization

(21 credits)
Required:
PED 570 Exercise Testing and Prescription (3 credits)
PED 675 Physiology of Human Performance I (4 credits) (Prerequisites: Courses in human anatomy and physiology, or equivalents)
PED 676 Physiology of Human Performance II (4 credits) (Prerequisite: PED 675)
HED 575 Nutrition and Physical Activity (3 credits)
HPR 680 or HPR 681 Practicum (3 or 4 credits) (register for 4 credits if elective totals three)

Elective

(3 to 4 credits)
Select one of the following courses:
PED 550 Psychology of Sport and Exercise (4 credits)
PED 551 Applied Sport Psychology (3 credits)
PED 560 Program Development and Management (4 credits)
PED 572 Physiology of Aging (3 credits) (if not taken as a requirement)
PED 677 Prevention and Rehabilitation of Cardiovascular Disease (3 credits)
HED 570 Pathophysiology of Disease (4 credits)

Culminating Activity

Select one of the three options: comprehensive examination, project, or thesis.

Sport Management

Thirty-four credit hours leading to the Master of Education degree.

Introduction

The sport management program prepares students to meet the needs of the ever-evolving sports world. Advanced educational offerings prepare graduates for professional careers related to the delivery and management of physical activity or sport programs in business, community, public, and private settings. Practicums available to our students include: IMG, professional sport organizations (e.g., Cleveland Browns, Cavaliers, Indians), and private and public health and fitness clubs, as well as recreation centers.

Program of Study College Core

(13 credits)
  ETE 501 Technology Strand (2 credits)
  HPR 601 Research Methods in Health and Human Performance (4 credits)
  HPR 606 Human Development (3 credits)
  PED 565 Law and Policy Studies in Sport and Physical Education (4 credits)

Specialization

(21 credits)
Required:
  PED 560 Program Development and Management (4 credits)
  PED 566 Sport Facility Management (3 credits)
  PED 567 Sport Marketing (3 credits)
  HPR 682 Practicum (5 credits)
Electives. Select two of the following courses:
  PED 551 Applied Sport Psychology (3 credits)
  PED 554 Sport Sociology (3 credits)
  PED 561 Sport Governance (3 credits)
  PED 570 Exercise Testing and Prescription (3 credits)
  ACT 501 Financial Accounting (3 credits)
  ECN 503 Economic Concepts (3 credits)
  MLR 501 Management and Organizational Behavior (3 credits)

Culminating Activity

Select one of the three options: comprehensive examination, project, or thesis.

Sport Management/Exercise Science (Combined)

Forty-five credit hours leading to the Master of Education degree.

Introduction

This specialization offers a combination of the Sport Management and Exercise Science programs described above. Students completing this combined program are prepared to organize, administer, understand, and design exercise programs for physical fitness-related environments. Students who wish to administer programs and manage facilities in a fitness, conditioning, or wellness setting should consider this program.

Program of Study College Core

(13 credits)
   ETE 501 Technology Strand (2 credits)
   HPR 601 Research Methods in Health and Human Performance (4 credits)
   HPR 606 Human Development (3 credits)
   PED 565 Law and Policy Studies in Sport and Physical Education (4 credits)

Specialization

(32 credits)
Required:
   PED 560 Program Development and Management (4 credits)
   PED 566 Sport Facility Management (3 credits)
   PED 675 Physiology of Human Performance I (4 credits) (Prerequisites: Courses in human anatomy and physiology, or equivalents)
   PED 676 Physiology of Human Performance II (4 credits) (Prerequisite: PED 675)
   HPR 681 or HPR 682 Practicum (4 or 5 credits) (register for 5 credits if electives total 12)
Electives: Select at least two courses in each area: (12 to 13 credits)
Exercise Science Courses:
   PED 570 Exercise Testing and Prescription (3 credits)
   PED 572 Physiology of Aging (3 credits)
   PED 677 Prevention and Rehabilitation of Cardiovascular Disease (3 credits)
   HED 570 Pathophysiology of Disease (4 credits)
   HED 575 Nutrition and Physical Activity (3 credits)
Sport Management Courses:
   PED 551 Applied Sport Psychology (3 credits)
   PED 554 Sport Sociology (3 credits)
   PED 561 Sport Governance (3 credits)
   PED 567 Sport Marketing (3 credits)
   ACT 501 Financial Accounting (3 credits)

ECN 503 Economic Concepts (3 credits)
MLR 501 Management and Organizational Behavior (3 credits)

Culminating Activity

Select one of the three options: comprehensive examination, project, or thesis.

Sport Management/Sport and Exercise Psychology (Temporarily Suspended)

Thirty-three to thirty-four credit hours leading to the Master of Education degree.

Introduction

This program is a combination of sport management and sport and exercise psychology. Students develop skills in organizing and administering a variety of sport programs (recreational, amateur, and professional sport). They also acquire the knowledge and skills needed to apply performance enhancement strategies in sport and/or exercise settings to assist participants in reaching their potential and learn strategies for effective leadership and for managing group dynamics. Students seeking careers in sport management, recreation, coaching, or athletic administration will benefit from this program.

Program of Study Core

(13 credits)
ETE 501 Technology Strand (2 credits)
HPR 601 Research Methods in Health and Human Performance (4 credits)
HPR 606 Human Development (3 credits)
PED 565 Law and Policy Studies in Sport and Physical Education (4 credits)

Specialization

(20-21 credits)
Required:
PED 550 Psychology of Sport and Exercise (4 credits)
PED 551 Applied Sport Psychology (3 credits)
PED 554 Sport Sociology (3 credits)
PED 560 Program Development and Management (4 credits)
HPR 680 Practicum (3 credits)
Elective: Select one of the following courses: (3-4 credits)
PED 566 Sport Facility Management (3 credits)
PED 561 Sport Governance (3 credits)
PED 567 Sport Marketing (3 credits)
PED 570 Exercise Testing and Prescription (3 credits)
HED 574 Stress Management (3 credits)
HED 575 Nutrition and Physical Activity (3 credits)
ALD 631 Group Dynamics for Education Leadership (4 credits)
ALD 645 Organizational Behavior and Change (4 credits)

Culminating Activity

Select one of the three options: comprehensive examination, project, or thesis.

School Nurse Licensure Program

The Department of Health, Physical Education, Recreation, and Dance (HPERD) offers courses leading to Ohio licensure for school nurses (Web site: http://www.csuohio.edu/cehs/departments/hperd/healthed/). The student shall be recommended for the licensure provided that he or she: 1) holds a current license to practice as a Registered Nurse (RN) in the State of Ohio, 2) has obtained a bachelor's degree from an approved college or university, and 3) has completed course work preparation for this licensure that conforms to the requirements listed. Students should apply for graduate admission as a licensure student to register for courses. Upon completion of these courses, students must apply for licensure through the Education Student Services Center of the College of Education and Human Services (Rhodes Tower 1401, telephone (216) 687-4625). An overall grade-point average of 2.5 must be maintained throughout the program. Course requirements are based on the National School Nurse Roles and Standards. Course work (24 to 26 credits minimum) must be distributed in the following areas:

Comprehensive School Health Program

HED 560 Foundations of a Coordinated School Health Program (4 credits)
NUR 550 Legal Issues in School Nursing (2 credits)

Comprehensive School Health Education Delivery

HED 561 Methods and Materials for Health Education (3 credits) (Prerequisite: HED 551 or HED 560, or equivalent)

Children with Special Needs and School Assessment

NUR 530 Health Assessment Strategies of the School-Aged Child and Child with Special Needs (3 credits)
NUR 532 Health Assessment of the School-Aged Child and Child with Special Needs Laboratory (2 credits)

Research

NUR 360 Nursing Research (2 credits) or NUR 310 if taken during summer

Practicum for School Nurses

HPR 679 Practicum (2 credits). Clinical and field-based experiences, including a practicum for at

least ten weeks, to ensure proficiency in performing the duties of a school nurse. School nurses with two years of full-time experience can complete 2 credits; all others must complete 3 or 4 credits. At least two-thirds of the course work must be completed. Includes a seminar and the development of a professional portfolio.

Curriculum and Instruction Programs Leading to the Master of Education Degree

Introduction

The program in Curriculum and Instruction is designed for teachers at all levels who wish to further develop their pedagogical expertise and improve their skills in educationally related disciplines. The College of Education and Human Services conceptual model for Teacher Education is the Teacher as a Responsive, Reflective Professional: A Partner in Learning. Cleveland State University teacher education graduates are known for distinctive abilities that reflect the four knowledge bases that compose this model: inquiry, partnership, contextualism, and professionalism.

All Curriculum and Instruction programs require the College Core courses, a Curriculum and Instruction core, and an area of specialization. The following specializations currently are available in the Curriculum and Instruction program:

- Educational Technology
- Early Childhood Education
- Elementary Education
- Educational Research
- Gifted and Talented Learners
- Health and Physical Education: School Health, Human Performance, Sport & Exercise Psychology • Health Education Master's and Teaching Licensure
- Literacy Development and Instruction (Reading, TESOL, Adult Literacy)
- Middle Childhood (Science, Mathematics)
- P-6 Mathematics Specialist
- Secondary Education (all content fields, including Art, English, Social Studies, Foreign Languages, Mathematics, and Science)
- Special Education: Early Childhood Intervention Specialist, Mild/Moderate Intervention Specialist, and Moderate/Intensive Intervention Specialist
- Urban Secondary Teaching (14-month master's program)

Educational Technology

(33 credits)

Purpose

This specialization is for educators who wish to develop and enhance their ability to use computers and related informational technologies in a regular classroom setting. Students explore the use of a variety of hardware and software in the K-12 setting, including the use of distance education technologies (both Web-based and video). For students certified or licensed as classroom teachers in Ohio, this program also grants the Ohio computer/technology teaching endorsement.

Program of Study College Core

(11 credits)

Educational Research and Technology

EDB 601 Educational Research (3 credits)
ETE 501 Technology Strand (2 credits)

Social Foundations

Select one of the following courses:
EDB 604 Social Issues and Education (3 credits)
EDB 606 Philosophy of Education (3 credits)
EDB 608 School and Society in the American Past (3 credits)
EDB 609 Comparative and International Education (3 credits)

Human Development

Select one of the following courses:
EDC 501 Child Development (3 credits)
EDB 620 Psychology of the Adolescent Learner (3 credits)
EDB 628 Psychology of Learning and Instruction (3 credits)

Curriculum and Instruction Core

(3 credits)
EDB 612 Curriculum Theory and Instruction (3 credits)

Specialization

(19 credits)
  ETE 565 Technology in the Classroom (4 credits)
  ETE 566 Technological Change and Schools (4 credits)
  ETE 567 Telecommunications in Education (4 credits)
  ETE 568 Programming the Computer (4 credits)
  ETE 595 Seminar in Computer Uses in Education (3 credits)

Culminating Activity

Select one of the four options: comprehensive examination, project, thesis, or portfolio assessment (conducted in ETE 595, which must be completed with a grade of B or better).

Early Childhood Education

(39-40 credits)

This specialization provides advanced study in the field of early childhood education. It includes University and field-based experiences that focus on the development and education of children from ages three to eight, including typically developing children and those with mild and moderate disabilities.

While primarily intended to meet the professional development needs of practicing early childhood educators, a qualified applicant who possesses a baccalaureate degree in another teaching field or related discipline may apply required coursework toward a provisional teaching license in early childhood. Eligibility for this license requires 1) additional coursework beyond that needed for the master's degree, 2) a portfolio meeting specific criteria at course checkpoints (ECE 500, ECE 502, EST 570, EST 580) and demonstrating proficiency in the twelve college outcomes (see Student Portfolio Handbook at http://csunew.csuohio.edu/cehs/students/portfolios/), and 3) successful completion of all Praxis II examinations required by the State of Ohio.

Built around a common College Core, specialized course work in early childhood education is integrated with required offerings in educational research, social foundations, and human development as outlined below. Taken as a whole, the curriculum focuses on the development of teaching and learning practices associated with high-quality early childhood education for young children representing diverse cultures and abilities. These practices respect all children and provide them with equal opportunity to develop and learn emotionally, socially, physically, and intellectually.

For further information, contact the Department of Teacher Education at (216) 687-4600.

Program of Study College Core

(11 credits)

Educational Research and Technology

  EDB 601 Educational Research (3 credits)
 ETE 501 Technology Strand (2 credits)

Social Foundations

Select one of the following courses: EDB 604 Social Issues and Education (3 credits)
  EDB 606 Philosophy of Education (3 credits)
  EDB 608 School and Society in the American Past (3 credits)
  EDB 609 Comparative and International Education (3 credits)

Human Development

  EDC 501 Child Development (3 credits)
  Note: ECE 511 may be substituted for EDC 501, with advisor permission, for students who have completed an equivalent course.

Specialization

(28 credits)
  ECE 500 Foundations of Early Childhood Education (4 credits)
  ECE 501 Developmental Curriculum for Early Childhood Education (4 credits)
  ECE 502 Teaching Methods in Early Childhood Education (4 credits)
  ECE 503 Teaching Children with Mild and Moderate Disabilities (3 credits)
  ECE 695 Seminar in Early Childhood Education (4 credits)
  EDC 500 Diversity in Educational Settings (3 credits)
  EST 570 Practicum in Early Childhood Education (3 credits)
Elective (3 credits minimum, selected with advisor; see Master of Education checklist)
The additional courses listed below represent those required to attain an Early Childhood Education license as a first teaching credential at the graduate level:
  ECE 512 Collaboration with Families and Professionals in Early Childhood Settings (4 credits)
  ECE 514 Expressive Arts in Early Childhood Education (3 credits)
  ECE 515 Mathematics Instruction and Assessment in Preschool and the Primary Grades (3 credits)
  ECE 516 Social Studies Instruction and Assessment in Preschool and the Primary Grades (3 credits)
  ECE 517 Science Instruction and Assessment in Preschool and the Primary Grades (3 credits)
  EDL 500 Phonics Assessment and Instruction (3 credits)
  EDL 501 Beginning and Intermediate Reading Instruction and Assessment (3 credits)
  EDL 511 Emergent Literacy (3 credits)
  EDL 512 Literature-based Reading Methods for Children (3 credits)
  ESE 515 Assessing Young Children (4 credits)
  EST 580 Student Teaching in Early Childhood Education (4 credits)
  PED 516 Health and Physical Education for Classroom Teachers (3 credits)

Exit Requirement

Select one of the four options: comprehensive examination, project, thesis, or advocacy or action research project (conducted as part of ECE 695, which must be completed with a grade of B or better).

Elementary Education

(33 credits)

Designed to provide continued professional development to experienced teachers, the elementary education specialization is intended for individuals who wish to extend their understanding of teaching-learning processes and the situational contexts in which they occur. This specialization offers opportunity for the in-depth study of current theory, research, and practice, particularly related to the design and delivery of effective instruction in the primary and upper elementary or middle school grades. While built around a common College Core, degree requirements are sufficiently flexible to allow for individual needs and interests. For example, students may use elective credits to expand their knowledge of one or more academic disciplines in the elementary curriculum; investigate new teaching methods and technologies; explore the educational needs of a particular age range or group of learners; or expand their understanding of the cognitive, affective, social, cultural, and motivational dimensions of learning. Students also may develop further skills to assume greater leadership roles in the planning, delivery, management, and evaluation of instructional programs. The Elementary Education Program does not provide for teacher licensure or any type of endorsement.

For further information, contact the Department of Teacher Education at (216) 687-4600.

Program of Study College Core

(11 credits)

Educational Research and Technology

  EDB 601 Educational Research (3 credits)
  ETE 501 Technology Strand (2 credits)

Social Foundations

Select one of the following courses:
  EDB 604 Social Issues and Education (3 credits)
  EDB 606 Philosophy of Education (3 credits)
  EDB 608 School and Society in the American Past (3 credits)
  EDB 609 Comparative and International Education (3 credits)

Human Development

Select one of the following courses:
  EDC 501 Child Development (3 credits)
  EDB 628 Psychology of Learning and Instruction (3 credits)

Curriculum and Instruction Core

(3 credits)
  EDB 612 Curriculum Theory and Instruction (3 credits)

Specialization

(19 credits)
  EDC 500 Diversity in Educational Settings (3 credits)
Select one of the following courses based on your concentration area:
  EDC 512 Instructional Development in Foreign Language Education (4 credits)
  EDC 513 Instructional Development in English Language Arts Education (4 credits)
  EDC 514 Instructional Development in Art Education (4 credits)
  EDC 515 Instructional Development in Mathematics Education (4 credits)
  EDC 516 Instructional Development in Social Studies Education (4 credits)
  EDC 517 Instructional Development in Science Education (4 credits)

Electives:

(12 credits minimum, selected with advisor)

Exit Requirement

Select one of three options: comprehensive examination, project, or thesis.

Educational Research

(30-32 credits)

The Educational Research specialization is designed to ground students in applied research methodology in education. Unlike other programs that specialize in particular content areas, the Educational Research program provides students with research skills that can be applied in any field of education. A background in research methods can also be a valuable asset in social sciences like psychology or sociology. Students who are interested in how to evaluate research reports and create valuable and trustworthy knowledge in education should consider this specialization. Strong research skills are also beneficial for students who desire to pursue doctoral studies in education and the social sciences.

Program of Study College Core

(11 credits)

Educational Research and Technology

  EDB 601 Educational Research (3 credits)
  ETE 501 Technology Strand (2 credits)

Social Foundations

Select one of the following courses:
  EDB 604 Social Issues and Education (3 credits)
  EDB 606 Philosophy of Education (3 credits)
  EDB 608 School and Society in the American Past (3 credits)
  EDB 609 Comparative and International Education (3 credits)

Human Development

Select one of the following courses:
  EDC 501 Child Development (3 credits)
  EDB 620 Psychology of the Adolescent Learner (3 credits)
  EDB 628 Psychology of Learning and Instruction (3 credits)

Curriculum and Instruction Core

(3 credits)
  EDB 612 Curriculum Theory and Instruction (3 credits)

Specialization

(12 credits)
   EDB 701 Advanced Educational Research (4 credits)
  EDB 711 Educational Evaluation and Innovation (4 credits)
  EDU 715 Applied Programming and Data Analysis with Statistical Packages (4 credits)

Culminating Activity

(4-6 credits)

Select one of three options: comprehensive examination (with minimum of 4 additional credits of electives), EDB 698 Project (6 credits) or EDB 699 Thesis (6 credits).

Gifted and Talented Learners

(33 credits)

The specialization in Gifted and Talented Learners is designed for previously certified/licensed teachers seeking an endorsement as an intervention specialist who teaches gifted and talented learners. In addition, this degree or credential may allow teachers to work as Gifted Coordinators in many school districts. The multi-dimensional program provides training in meeting the needs of a broad range of gifted learners including culturally diverse children, females, those with dual exceptionalities (LD/Gifted, ADD/Gifted, etc.), underachievers, and those with special talents. The program provides opportunities for interested individuals to develop knowledge and skills in cultivating creativity and dealing with children's families and other professionals regarding gifted issues. Graduates are adept at understanding the continuum of services from which teachers and schools can choose to meet the needs of gifted, talented, high achieving and high performing students in a variety of settings. Participation in the program enhances skills in classroom teaching, counseling, administrative decision-making, and individualized intervention, as well as collaboration and leadership skills within the broader educational community. Beginning in the Summer of 2008, the complete Gifted Endorsement Program will be available Online.

Program of Study College Core

(12 credits)

Educational Research and Technology

  EDB 601 Educational Research (3 credits)
  ETE 501 Technology Strand (2 credits)

Social Foundations

Select one of the following courses:
  EDB 604 Social Issues and Education (3 credits)
  EDB 606 Philosophy of Education (3 credits)
  EDB 608 School and Society in the American Past (3 credits)
  EDB 609 Comparative and International Education (3 credits)

Human Development

  EGT 512 Nature and Developmental Needs of Learners with Gifts and Talents (4 credits)

Curriculum and Instruction Core

(3credits)
  EDB 612 Curriculum Theory and Instruction (3 credits)

Specialization

(18 credits)
  EGT 513 Curriculum, Teaching Strategies, and Evaluation for Learners with Gifts and Talents (4 credits)
  EGT 517 Creativity, Inquiry, and Productive Thinking (4 credits)
  EGT 518 Working with Students with Gifts and Talents, Their Families, and Other Professionals (3 credits)
  EGT 519 Using Computers with Students with Gifts and Talents (3 credits)
  EGT 580 Practicum in Gifted and Talented Education (4 credits)

Culminating Activity

Select one of the four options: A teacher action research study (conducted as part of EGT 580, which must be completed with a grade of B or better), comprehensive examination, project, or thesis.

Health and Physical Education

(32 to 35 credits)

The program is designed for health and physical education teachers and coaches in school settings. Focus is placed on instructional development and advanced knowledge and skills in general educational principles. A curricular area of specialization is pursued to increase awareness and understanding of current educational trends and issues. The areas of specialization are human performance, sport and exercise psychology, physical education pedagogy (suspended until further notice), and school health education, including options for initial or second licensure in multi-age health education.

Program of Study College Core

(12 to 13 credits)

Educational Research and Technology

 HPR 601 Research Methods in Health and Human Performance (4 credits)
 ETE 501 Technology Strand (2 credits)

Social Foundations

Select one of the following courses:
 EDB 604 Social Issues and Education (3 credits)
 EDB 606 Philosophy of Education (3 credits)
 EDB 608 School and Society in the American Past (3 credits)
 EDB 609 Comparative and International Education (3 credits)

Human Development

For human performance, sport and exercise psychology area of specialization:
 HPR 606 Human Development (3 credits)
For school health education area of specialization:
 HED 550 Theories in Health Education and Health Behavior (4 credits)

Curriculum and Instruction Core

(3credits)
 EDB 612 Curriculum Theory and Instruction (3 credits)

Areas of Specialization

Human Performance

(18 to 19 credits)
Select five of the following courses:
  PED 565 Law and Policy Studies in Sport and Physical Education (4 credits)
  PED 570 Exercise Testing and Prescription (3 credits)
  PED 572 Physiology of Aging (3 credits)
  PED 675 Physiology of Human Performance I (4 credits) (Prerequisites: Courses in human anatomy and physiology, or equivalents)
  PED 676 Physiology of Human Performance II (4 credits) (Prerequisite: PED 675)
  PED 677 Prevention and Rehabilitation of Cardiovascular Disease (3 credits)
  HED 570 Pathophysiology of Disease (4 credits)

Sport and Exercise Psychology (Temporarily Suspended)

(18 to 20 credits)
  PED 550 Psychology of Sport and Exercise (4 credits)
  PED 551 Applied Sport Psychology (3 credits)
  PED 554 Sport Sociology (3 credits)

Electives

Select two or three of the following courses (minimum of 8 credits):
  PED 565 Law and Policy Studies in Sport and Physical Education (4 credits)
  PED 570 Exercise Testing and Prescription (3 credits)
  HED 574 Stress Management (3 credits)
  HED 575 Nutrition and Physical Activity (3 credits)
  EDB 620 Psychology of the Adolescent Learner (3 credits)
  ALD 605 Psychology of the Adult Learner (3 credits)
  ALD 631 Group Dynamics for Educational Leadership (4 credits)
  ALD 645 Organizational Behavior and Change (4 credits)

School Health Education

(17 to 18 credits)
  HED 552 Health Education Program Planning (3 credits)
  HED 553 Measurement and Evaluation of Health Education Programs (3 credits)
  HED 560 Foundations of a Coordinated School Health Program (4 credits)

Electives

Select two of the following courses (minimum of 7 credit hours):
  HED 561 Methods and Materials for Health Education (3 credits) (Prerequisite: HED 551 or HED

560, or equivalent)
  HED 565 Analyzing Health Data for Grant Writing (3 credits)
  HED 570 Pathophysiology of Disease (4 credits)
  HED 571 Substance Abuse Education (3 credits)
  HED 572 Consumer Health (3 credits)
  HED 573 Teaching Human Sexuality (3 credits)
  HED 574 Stress Management (3 credits)
  HED 575 Nutrition and Physical Activity (3 credits)
  HPR 606 Human Development (3 credits)
  PED 677 Prevention and Rehabilitation of Cardiovascular Disease (3 credits)
 Other approved course (3-4 credits)

School Health Education and Multi-Age Licensure

40-49 credit hours leading to the Master of Education degree and Ohio State licensure.

Introduction

This program is a combination of the curriculum and instruction Master's degree program in school health education and multi-age licensure in health education. Students analyze and interpret current research in the health field and become knowledgeable in areas of primary concern, such as nutrition and substance abuse in the schools. Particular focus is placed on recent developments and trends in health fields. Two program options are available: (1) Master's degree and second licensure for current holders of a multi-age license and (2) Master's degree and initial licensure for persons without a current teaching license.

School Health Education and Second Licensure

40-43 credit hours

Program of Study College Core

(13 credits)
  HPR 601 Research Methods in Health and Human Performance (4 credits)
  ETE 501 Technology Strand (2 credits)
  EDB 612 Curriculum Theory and Instruction (3 credits)
  HED 550 Theories in Health Education and Health Behavior (4 credits)

Specialization*

(27-30 credits)
  HED 552 Health Education Program Planning (3 credits)
  HED 553 Measurement and Evaluation of Health Education (3 credits)
  HED 560 Foundations of a Coordinated School Health Program (4 credits)**
  HED 561 Methods and Materials for Health Education (3 credits)***
  HED 571 Substance Abuse Education (3 credits)
  HED 573 Teaching Human Sexuality (3 credits)
  HED 575 Nutrition and Physical Activity (3 credits)
Advisor approved elective (3 or 4 credits)
  HED 580 Practicum in School Health Education (2-4 credits)
  *Prerequisites: Personal health, first aid, and CPR certification or equivalent
  **Prerequisite: Foundations of health education (HED 359)
  ***Prerequisites: Personal health, child psychology, adolescent psychology, or equivalent

Culminating Activity

Select one of the three options: comprehensive examination, project, or thesis.

Licensure Requirements

Must pass Praxis II health content exam prior to practicum assignment
Criminal background check
Professional and employment portfolio

School Health Education and Initial Licensure

48-49 credit hours

Program of Study College Core

(13 credits)
 HPR 601 Research Methods in Health and Human Performance (4 credits)
 ETE 501 Technology Strand (2 credits)
 EDB 612 Curriculum Theory and Instruction (3 credits)
 HED 550 Theories in Health Education and Health Behavior (4 credits)

Specialization*

(35-36 credits)
 HED 552 Health Education Program Planning (3 credits)
 HED 553 Measurement and Evaluation of Health Education (3 credits)
 HED 560 Foundations of a Coordinated School Health Program (4 credits)**
 HED 561 Methods and Materials for School Health Education (3 credits)***
 HED 571 Substance Abuse Education (3 credits)
 HED 573 Teaching Human Sexuality (3 credits)
 HED 575 Nutrition and Physical Activity (3 credits)
 HED 583 Student Teaching in Health Education (10 credits)
Advisor approved elective (3 or 4 credits)
 *Prerequisites: Personal health, first aid, and CPR certification or equivalent
 **Prerequisite: Foundations of health education (HED 359)
***Prerequisites: Personal health, child psychology, adolescent psychology, or equivalent
 **Prerequisite: Foundations of health education (HED 359)
 ***Prerequisites: Personal health, child psychology, adolescent psychology, or equivalent

Culminating Activity

Select one of the three options: comprehensive examination, project, or thesis.

Licensure Requirements

Must pass both Praxis II principles of learning and teaching (PLT) and health content exams prior to student teaching
Criminal background check
Professional and employment portfolio

Literacy Development and Instruction

(34 to 35 credits)

The specialization in literacy development and instruction meets the needs of teachers, clinicians, and others who provide literacy-related services to children or adults. The program also is of interest to those who wish to study reading and writing as language processes. Within this program, the acquisition and development of literate behaviors are viewed as inherent components of language learning in general, including second-language acquisition.

A wide range of available course offerings make this program attractive to individuals with diverse interests and career goals. Students may pursue concentrations leading to endorsement in Reading, Teaching English to Speakers of Other Languages (TESOL), or Bilingual Education on an existing Ohio teaching license. There is a fourth concentration for non-school personnel with an interest in Adult Literacy.

In addition to completing all course work in the appropriate concentration, candidates for reading endorsement must pass the Praxis II Specialty Examination, Introduction to the Teaching of Reading. Similarly, candidates for TESOL endorsement must complete all course work in that concentration and pass the Praxis II Specialty Test, Teaching English to Speakers of Other Languages.

For further information, contact the Department of Teacher Education at (216) 687-4600.

Program of Study College Core

(11 credits)

Educational Research and Technology

  EDB 601 Educational Research (3 credits)
  ETE 501 Technology Strand (2 credits)

Social Foundations

Select one of the following courses:
  EDB 604 Social Issues and Education (3 credits)
  EDB 606 Philosophy of Education (3 credits)
  EDB 608 School and Society in the American Past (3 credits)
  EDB 609 Comparative and International Education (3 credits)

Human Development

One of the following courses must be selected in consultation with an academic advisor:
  EDC 501 Child Development (3 credits)
  EDB 620 Psychology of the Adolescent Learner (3 credits)
  EDB 628 Psychology of Learning and Instruction (3 credits)
  ALD 605 Psychology of the Adult Learner (3 credits)

Curriculum and Instruction Core

(3 credits)
  EDB 612 Curriculum Theory and Instruction (3 credits)

Areas of Specialization

Reading Endorsement

(20 credits)
  EDL 502 Foundations of Literacy: Theory and Practice (3 credits)
  EDL 503 Assessment and Evaluation of Diverse Literacy Learners (4 credits)
  EDL 504 Literacy Development: Meeting the Needs of Diverse Learners (4 credits)
  EDL 505 Content Area Literacy (3 credits)
  EDL 695 Seminar in Literacy Research (3 credits)

Select one of the following courses:

  EDL 511 Emergent Literacy (3 credits)
  EDL 512 Literature-based Reading Programs for Children (3 credits)
  EDL 513 Literature-based Reading Programs for Adolescents (3 credits)

Teaching English to Speakers of Other Languages (TESOL)

(21 credits)
  EDC 500 Diversity in Educational Settings (3 credits)
  EDL 506 Second Language Learning and Pedagogy (3 credits)
  EDL 507 TESOL Methods and Materials (3 credits)
  EDL 508 Applied Linguistics for Teachers (3 credits)*
  EDL 509 Assessment and Evaluation in the ESL/Bilingual Classroom (3 credits)
  EDL 510 Pedagogical Grammar (3 credits)*
  EST 573 Practicum in TESOL (3 credits)
*A graduate-level linguistics course (3 credits minimum, selected with advisor) can be used in place of EDL 508 or EDL 510

Bilingual Education Endorsement

(21 credits)
   EDL 516 Methods and Teaching Content Areas in a Bilingual Setting (3 credits)
   EDL 506 Second Language Learning and Pedagogy (3 credits)
   EDL 515 Foundations and Issues in Bilingual Education (3 credits)
   SPN 593 Advanced Topics in Grammar and Linguistics (3 credits)
   EDL 509 Assessment and Evaluation in the ESL/Bilingual Classroom (3 credits)
   EDL 510 Pedagogical Grammar (3 credits)
   EST 572 Practicum in Bilingual Education (3 credits)

Adult Literacy

(20 credits)
   EDL 502 Foundations of Literacy: Theory and Practice (3 credits)
   EDL 503 Assessment and Evaluation of Diverse Literacy Learners (4 credits)
   EDL 504 Literacy Development: Meeting the Needs of Diverse Learners (4 credits)
   EDL 505 Content Area Literacy (3 credits)
   EDL 514 Adult Literacy (3 credits)
   EDL 695 Seminar in Literacy Research (3 credits)

Exit Requirement

Select one of the three options: comprehensive examination, project, or thesis. Students in the Reading Endorsement specialization may substitute EDL 695, if completed with a grade of B or better.

Middle Childhood Education

(38 credits)

This specialization provides advanced study in the field of middle childhood education with particular emphasis being given to the design and delivery of effective mathematics or science instruction in grades four through nine. Initial teacher licensure is not available through this program.

While primarily intended to meet the professional development needs of practicing elementary and middle school teachers, the qualified applicant who already possesses a middle childhood license can apply required course work toward additional subject credentialing in mathematics and/or science education. Eligibility to add subject areas to an existing middle childhood license may demand further study beyond course work needed for the master's degree and requires successful completion of all Praxis II examinations required by the State of Ohio. Individuals seeking to add science and/or mathematics to a middle school licensure should contact the Education Student Service Center, at (216) 687-4625, early in their program for further information. Credits earned in the Graduate Certificate in Middle Childhood Mathematics or Science may be applied toward credit in this program.

Built around a common College Core, specialized course work in mathematics or science is integrated with required offerings in educational research, social foundations, human development, and instructional development as outlined below. The curriculum focuses on the development of practices associated with high-quality mathematics or science education for children ages eight through fourteen, with diverse cultural backgrounds and abilities. Candidates will be actively engaged in implementing inquiry teaching principles and engaging in self-reflection on learning and teaching during the field-based and research courses. The culminating exit requirement is an action research project that requires candidates to weave aspects of the content-based courses they participated in throughout the program into their own teaching.

For further information, contact the Department of Teacher Education at (216) 687-4600.

Program of Study College Core

(15 credits)

Educational Research and Technology

  EDB 601 Educational Research (3 credits)
 ETE 501 Technology Strand (2 credits) Social Foundations
 EDB 604 Social Issues and Education (3 credits)

Human Development

EDB 620 Psychology of the Adolescent Learner (3 credits)

Curriculum and Instruction Core

Select one of the following courses based on specialization:
  EDC 515 Instructional Development in Mathematics Education (4 credits)
  EDC 517 Instructional Development in Science Education (4 credits)

Areas of Specialization

Select one specialization.

Mathematics Education

(20 credits)
  MTH 526 Numbers, Patterns, and Operations for Middle School Teachers (4 credits)
  MTH 527 Algebra and Functions for Middle School Teachers (4 credits)
  MTH 528 Geometry for Middle School Teachers (4 credits)
  MTH 529 Data Analysis and Probability for Middle School Teachers (4 credits)
  MTH 530 Conversational Calculus for Middle School Teachers (4 credits)

Science Education

(20 credits)
  BIO 580 Biology Content for Middle School Teachers (5 credits)
  CHM 580 Introductory Chemistry for Middle School Teachers (5 credits)
  EVS 580 Earth System Science for Middle School Teachers (5 credits)
  PHY 500 Conceptual Physics for Middle School Teachers (5 credits)

Exit Requirement

EST 595 Seminar on Implementing Theory and Practice (3 credits)

P-6 Mathematics Specialist Endorsement

Master's degree and Endorsement – 33-34 credits
Endorsement Only – 19-20 credits

The P-6 Mathematics Specialist Program is designed to provide in-service certified teachers with the opportunity to improve their conceptual understanding of a range of mathematics contents (i. e. number, measurement, geometry, probability and data analysis, algebra and calculus). In addition, the program intends to consider and evaluate the philosophy, principles, practices and problems encountered in P-6 grade mathematics instruction. In line with the College of Education and Human Services model, practicing teachers will engage in mathematical inquiry through activities including problem solving, reasoning, communication, connection and representation during all of the mathematics related courses. They will be actively engaged in implementing inquiry teaching principles and engaging in self-reflection on learning to assess, intervene, and lead new teachers as well as low achieving students in mathematics during field-based and research courses. Issues of curriculum design and implementation will be considered, as well as issues of diversity, equity, and use of technology in the classroom.

The P-6 Mathematics Specialist Endorsement is a graduate level program where students can earn a master's degree and an endorsement or the endorsement alone. Standard admission requirements apply to the program. Individuals seeking endorsement as a PreK-6 Mathematics Specialist must already hold a standard two year provisional or five year professional teaching license in Ohio.

In addition, the following mathematics courses or equivalent courses taken from other accredited institutions are prerequisites to enrollment in all specialization courses within the program:

Candidates with Early Childhood Licenses

  MTH 127 Math for Elementary/Middle School Teachers I
  MTH 128 Math for Elementary/Middle School Teachers II
  MTH 129 Math for Elementary/Middle School Teachers III
  MTH 326, MTH 327 , MTH 328 or MTH 329

All others

  MTH 326: Numbers/Patterns/Operations for Middle School Teachers
  MTH 327: Algebra/Functions for Middle School Teachers
  MTH 328: Geometry for Middle School Teachers
  MTH 329: Data Analysis/Probability for Middle School Teachers

To ensure adequate content knowledge across all grades covered by this PreK-6 endorsement, participants will need to take (or have taken) mathematics methods courses for both early

childhood (ECE 415/515 or equivalent) and middle childhood (EDM 415/515 or equivalent).

Program of Study College Core

(14 credits, not required for Endorsement Only)

Educational Research and Technology

  EDB 601 Educational Research (3 credits)
  ETE 501 Technology Strand (2 credits)

Social Foundations

  EDB 604 Social Issues and Education (3 credits)

Human Development

One of the following courses:
  EDC 501 Child Development (3 credits)
  EDB 628 Psychology of Learning and Instruction (3 credits)

Curriculum and Instruction

EDB 612 Curriculum Theory and Instruction 3 credits

Curriculum Evaluation/Supervision/
Teacher Leadership

  ADM 676 Clinical Supervision and Professional Development (4 credits)

Areas of Specialization

(15 or 16 credits, required for master's degree and endorsement)
Prerequisites Mathematics courses are: MTH 326, MTH 327, MTH 328, MTH 329 or equivalents
  EDC 515 Instructional Development in mathematics Education (4 credits)
  EDC 520 Mathematics Instruction with Technology (2 credits)
  EDC 521 Assessment in Mathematics Education (3 credits)
  EDC 522 Practicum in Mathematics Intervention (3 credits)
  ECE 515 Mathematics Instruction in Preschool and primary grades (3 credits) OR EDM 515
Teaching Mathematics in the middle school (4 credits)

Secondary Education

(33 credits)

The secondary education specialization is intended for experienced teachers who wish to extend their understanding of teaching-learning processes and the situational contexts in which they occur. The specialization offers considerable opportunity for the in-depth study of current theory, research, and practice that is particularly related to the design and delivery of effective instruction in grades seven through twelve. While built around the College Core, degree requirements are sufficiently flexible to allow for individual needs and interests. For example, students may use elective hours in the professional specialization sequence to increase their knowledge in their academic discipline; investigate new teaching methods and technologies; or explore further the educational needs of a particular group of learners. Students also may choose to expand their understanding of the cognitive, affective, social, cultural, and motivational dimensions of learning, and/or develop additional skills needed to assume greater leadership roles in the planning, delivery, management, and evaluation of instructional programs. The Secondary Education program does not provide for any form of teacher licensure or endorsement.

For further information, contact the Department of Teacher Education at (216) 687-4600.

Program of Study College Core

(11 credits)

Educational Research and Technology

  EDB 601 Educational Research (3 credits)
  ETE 501 Technology Strand (2 credits)

Social Foundations

Select one of the following courses:
  EDB 604 Social Issues and Education (3 credits)
  EDB 606 Philosophy of Education (3 credits)
  EDB 608 School and Society in the American Past (3 credits)
  EDB 609 Comparative and International Education (3 credits)

Human Development

Select one of the following courses:
  EDB 620 Psychology of the Adolescent Learner (3 credits)
  EDB 628 Psychology of Learning and Instruction (3 credits)

Curriculum and Instruction Core

EDB 612 Curriculum Theory and Instruction (3 credits)

Specialization

(19 credits)
EDC 500 Diversity in Educational Settings (3 credits)
Select one of the following courses:
EDC 512 Instructional Development in Foreign Language Education (4 credits)
EDC 513 Instructional Development in English Language Arts Education (4 credits)
EDC 514 Instructional Development in Art Education (4 credits)
EDC 515 Instructional Development in Mathematics Education (4 credits)
EDC 516 Instructional Development in Social Studies Education (4 credits)
EDC 517 Instructional Development in Science Education (4 credits)

Electives:

(Minimum of 12 credits, selected with advisor.

Exit Requirement

Select one of three options: comprehensive examination, project, or thesis.

Curriculum and Instruction Urban Secondary Teaching

(Initial Licensure)

44 credit hours leading to the Master of Education degree.

Program Description

This program prepares individuals with bachelor's degrees to teach in urban secondary schools. This intensive, fourteen month, full-time program engages a cohort of twenty-five students in school-based classes and classroom experiences, studying theory and developing essential practices within school settings. Through reflection, collaboration, fieldwork, and inquiry, students develop responsive teaching and classroom management strategies that enhance learning. Students construct a critical perspective of schooling by examining and addressing the effects of race, class, and gender on pedagogy and learning.

Admission Information

Applicants to the program must:
1. Attend one of the information sessions offered during the fall semester
2. Complete a special MUST Graduate Program Admission Application form provided at the information sessions
3. Meet all College of Graduate Studies admission requirements noted in this Catalog
4. Hold a bachelor's degree in mathematics, science, English, social studies, or a related field with above-average grades
5. Be committed to a fourteen-month intensive program to include a nine-month, school-based internship
6. Have an interest in working in an urban school environment
7. Hold no concurrent employment
8. Agree to develop a professional teaching portfolio
10. Agree to participate in all cohort activities

Eligible applicants to the program are invited for an interview.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Program of Study

EDB 502 Psychological Foundations of Education (3 credits)
EDB 505 Teaching and Management in the Secondary School (3 credits)
EDB 601 Educational Research (3 credits)
ETE 501 Technology Strand (2 credits)

ETE 565 Technology in the Classroom (4 credits)
ESE 504 Teaching Students of Varying Abilities (3 credits)
One of the following:
  EDS 513 Secondary Language Arts Instruction and Assessment (4 credits)
  EDS 515 Mathematics Education in the Secondary School (4 credits)
  EDS 516 Social Studies Education in the Secondary School (4 credits)
  EDS 517 Science Education in the Secondary School (4 credits)
Additional Required Courses:
  EDB 604 Social Issues and Education (3 credits)
  EDL 505 Content Area Literacy (3 credits)
  EST 582-585 Practicum in Secondary English, Math, Social Studies or Science Education (3 credits)
  EST 589-592 Student Teaching in Secondary English, Math, Social Studies or Science Education (10 credits)

Exit Requirement

EDB 595 Seminar on Integrating Theory and Practice (2 or 3 credits)

Special Education

(37 to 41 credits)

The program provides advanced course work in the education of learners with exceptional needs. Program options permit concentrated study in one of three areas: Early Childhood Special Education, Learners with Mild/Moderate Educational Needs, and Learners with Moderate/ Intensive Educational Needs. While all three concentrations include course work and fieldwork that may be applied toward Ohio licensure as an Intervention Specialist, eligibility for such licensure may require further study, depending on the student's previous educational background. In addition, students must successfully complete the appropriate Praxis II examinations required for licensure by the State of Ohio.

If courses were taken previously as part of a Cleveland State baccalaureate degree program, special education courses generally need not be repeated. However, students need to select appropriate graduate elective offerings in consultation with an academic advisor to make up the requisite number of credit hours for the desired concentration. The College of Education and Human Services is committed to preparing special educators to work within diverse educational settings and communities. Therefore, all three program options require that students have a working knowledge of issues related to the education of culturally and linguistically diverse students, gifted children, children with special needs, and gender issues in education concentrations. To that end, completion of EDC 500 Diversity in Educational Settings, or its equivalent, is a prerequisite to all special education concentrations.

Portfolio Requirement

All teaching license students are required to maintain a portfolio while completing their professional coursework and field experiences. The portfolio will evolve from a working portfolio to a professional portfolio and finally to an employment portfolio. Students are responsible for housing in their portfolio various required and optional artifacts that demonstrate their level of competency in each of the following twelve outcomes or standards:

1. **Personal Philosophy.** The Cleveland State teacher education student articulates a personal philosophy of teaching and learning that is grounded in theory and practice.
2. **Social Foundations.** The Cleveland State teacher education student possesses knowledge and understanding of the social, political, and economic factors that influence education and shape the worlds in which we live.
3. **Knowledge of Subject Matter and Inquiry.** The Cleveland State teacher education student understands content, disciplinary concepts, and tools of inquiry related to the development of an educated person.
4. **Knowledge of Development and Learning.** The Cleveland State teacher education student understands how individuals learn and develop and that students enter the learning setting with prior experiences that give meaning to the construction of new knowledge.
5. **Diversity.** The Cleveland State teacher education student understands how individuals differ in their backgrounds and approaches to learning and incorporates and accounts for such diversity in teaching and learning.
6. **Learning Environment.** The Cleveland State teacher education student uses an understanding of individual and group motivation to promote positive social interaction, active engagement in learning, and self-motivation.
7. **Communication.** The Cleveland State teacher education student uses knowledge of effective verbal, nonverbal, and media communication techniques to foster inquiry, collaboration, and engagement in learning environments.
8. **Instructional Strategies.** The Cleveland State teacher education student plans and implements a variety of developmentally appropriate instructional strategies to develop performance skills, critical thinking, and problem-solving, as well as to foster social, emotional, creative, and physical development.
9. **Assessment.** The Cleveland State teacher education student understands, selects, and uses a range of assessment strategies to foster physical, cognitive, social, and emotional development of learners, and gives accounts of students' learning to the outside world.
10. **Technology.** The Cleveland State teacher education student understands and uses up-to-date technology to enhance the learning environment across the full range of learner needs.
11. **Professional Development.** The Cleveland State teacher education student is a reflective practitioner who evaluates his/her interactions with others (e.g., learners, parents/ guardians, colleagues, and professionals in the community) and seeks opportunities to grow professionally.
12. **Collaboration and Professionalism.** The Cleveland State teacher education student fosters relationships with colleagues, parents/guardians, community agencies, and colleges/ universities to support students' growth and well-being.

At various portfolio checkpoints, students must meet specific criteria in order to be eligible to continue to the next phase of their program. For complete information on portfolios, students are strongly encouraged to access the Student Portfolio Handbook available at:

http://csunew.csuohio.edu/cehs/students/portfolios/

The goal of the Early Childhood Intervention Specialist concentration is to prepare professionals to work with children from birth to age eight who have special needs. In addition to Ohio licensure as an Early Childhood Intervention Specialist, this concentration provides course work and fieldwork needed for the Mental Retardation/ Developmental Disabilities (MR/DD) Early Intervention Certificate.

The Moderate/Intensive Intervention Specialist concentration prepares teachers and professionals from related disciplines to work with children and youth ages 5 through 21 who have moderate, severe, or profound mental retardation; severe emotional disorders; or multiple disabilities. The professional who completes this concentration will have advanced skills in curriculum design and implementation, interdisciplinary teaming, and working with parents of children with exceptional needs.

For further information, contact the Department of Teacher Education at (216) 687-4600.

Program of Study College Core

(11 credits)

Educational Research and Technology

  EDB 601 Educational Research (3 credits)
  ETE 501 Technology Strand (2 credits)

Social Foundations

Select one of the following courses:
  EDB 604 Social Issues and Education (3 credits)
  EDB 608 School and Society in the American Past (3 credits)
  ECE 500 Foundations of Early Childhood Education (Early Childhood Special Education majors only) (4 credits)

Human Development

  EDC 501 Child Development (3 credits)

Areas of Concentration

Early Childhood Intervention Specialist

(26 credits)

ESE 500 Introduction to Special Education (4 credits)***
ESE 501 Nature and Needs of Young Children with Disabilities and Those at Risk (4 credits)**
ESE 512 Collaboration and Partnerships among Parents and Professionals in Special Education (4 credits)
ESE 513 Supporting Medical and Intensive Educational Needs (4 credits)
ESE 514 Curriculum and Interventions for Infants and Young Children with Special Needs (4 credits)
ESE 515 Assessing Young Children (4 credits) EST 576 Practicum in Early Childhood-Special Education (2 credits)
EST 586 Student Teaching in Early Childhood-Special Education (4 credits)

In order to obtain an Early Childhood Intervention Specialist License as a first teaching credential, additional course work (listed below) must be completed. For second licensure students, equivalencies must be approved for these courses by a licensure advisor; approval requires the course numbers for the proposed substitutions and an official transcript showing the courses.

EDL 500 Phonics Assessment and Instruction (3 credits)
EDL 501 Beginning and Intermediate Reading Instruction and Assessment (3 credits)
EDL 511 Emergent Literacy (3 credits)
EDL 512 Literature-based Reading Methods for Children (3 credits)
ECE 515 Mathematics Instruction and Assessment in Preschool and the Primary Grades (3 credits)
ESE 511 Classroom Management and Intervention for Severe Behavior Problems (4 credits)

Mild/Moderate Intervention Specialist

(26 credits)
ESE 500 Introduction to Special Education (4 credits)***
ESE 502 Introduction to Individuals with Mild/Moderate Disabilities (4 credits)**
ESE 511 Classroom Management and Intervention for Severe Behavior Problems (4 credits)
ESE 512 Collaboration and Partnerships among Parents and Professionals in Special Education (4 credits)
ESE 516 Life Skills and Career Planning in Special Education (2 credits)
ESE 517 Assessment of Mild/Moderate Disabilities (4 credits) or ESE 521 Assessment for Instructional Needs (4 credits) (to be taken by first licensure candidates)
ESE 518 Curriculum and Instruction for Students with Mild/Moderate Disabilities (4 credits) or
ESE 522 Assessment-Based Curriculum and Instruction for Students with Mild/Moderate Disabilities (4 credits) (to be taken by first licensure candidates)
EST 587 Student Teaching for Mild/Moderate Disabilities (4 credits)

In order to obtain a Mild/Moderate Intervention Specialist License as a first teaching credential, additional course work (listed below) must be completed. For second licensure students, equivalencies must be approved for these courses by a licensure advisor; approval requires the course numbers for the substitutions and a copy of the transcript showing the courses.

  EDL 500 Phonics Assessment and Instruction (3 credits)
  EDL 501 Beginning and Intermediate Reading Instruction and Assessment (3 credits)
  EDL 505 Content Area Literacy (3 credits)
  EDL 512 Literature-based Reading Programs for Children (3 credits) or EDL 513 Literature-based Reading Programs for Adolescents (3 credits)
  ECE 515 Mathematics Instruction and Assessment in Preschool and the Primary Grades (3 credits)
  EDB 612 Curriculum Theory and Instruction (3 credits) (required for Initial Licensure only)

Moderate/Intensive Intervention Specialist

(30 credits)
  ESE 500 Introduction to Special Education (4 credits)***
  ESE 503 Introduction to Individuals with Moderate and Severe Disabilities (4 credits)**
  ESE 510 Diagnostic Assessment and Multi-factored Evaluation for Students with Moderate and Severe Disabilities (2 credits)
  ESE 511 Classroom Management and Intervention for Severe Behavior Problems (4 credits)
  ESE 512 Collaboration and Partnerships among Parents and Professionals in Special Education (4 credits)
  ESE 513 Supporting Medical and Intensive Educational Needs (4 credits)
  ESE 519 Life Skills Assessment, Curriculum, and Instruction (4 credits)
  ESE 520 Assessment, Curriculum, and Instruction to Meet the Academic and Behavioral Needs of Students with Moderate and Intensive Disabilities (4 credits)
  EST 588 Student Teaching for Moderate and Intensive Educational Needs (4 credits)

In order to obtain a Moderate/Intensive Intervention Specialist License as a first teaching credential, additional course work (listed below) must be completed. For second licensure students, equivalencies must be approved for these courses by a licensure advisor; approval requires the course numbers for the substitutions and a copy of the transcript showing the courses.

  EDL 500 Phonics Assessment and Instruction (3 credits)
  EDL 501 Beginning and Intermediate Reading Instruction and Assessment (3 credits)
  EDL 505 Content Area Literacy (3 credits) EDL 512 Literature-based Reading Methods for Children (3 credits)
  ECE 515 Mathematics Instruction and Assessment in Preschool and the Primary Grades (3 credits)
  ECE 517 Science Instruction and Assessment in Preschool and the Primary Grades (3 credits)
  **EDC 500 Diversity in Educational Settings, or equivalent (3 credits) is a prerequisite for this course.
***ESE 500 Introduction to Special Education (4 credits) is a prerequisite course for all first licensure candidates and for all students certified/ licensed in another teaching area.

Exit Requirement

Select one of three options: comprehensive examination, project, or thesis.

Note: "Licensure Only" students (in all concentrations) must take all courses and meet all requirements listed except for the following: Educational Research, Technology Strand, Social Foundations, and the Culminating Experience.

Master of Science in

Electrical Engineering

Department of Electrical and Computer Engineering

Stilwell Hall 332
(216) 687-2589
http://www.csuohio.edu/engineering/ece/academics/graduate.html

Fuqin Xiong, Chair, Electrical and Computer Engineering
Dan Simon, Graduate Program Director

Areas of Study

Communication Engineering
Control Engineering
Power System and Power Electronics Engineering
Computer Engineering

Introduction

The Master of Science in Electrical Engineering program integrates theory and applications. Courses are typically scheduled in the late afternoon and early evening to serve the needs of both full-time and part-time students. The program is suitable for students planning to continue their studies at the doctoral level, as well as those who do not plan formal studies beyond the master's degree. Each student plans a program of study in consultation with an advisor appointed by the Department of Electrical and Computer Engineering. The program includes required courses and an integrated selection of courses in the student's field of interest. The following areas of specialization are offered for graduate study and research:

- Communication Systems
- Computer Systems
- Control Systems
- Power Electronics and Power Systems

Facilities

The Electrical and Computer Engineering Department maintains the following laboratories for instructional purposes:

- **Communications and Electronics Laboratory—**Fully equipped to conduct experiments in analog and digital electronics and analog and digital communications, such as analog modulation and demodulation (AM and FM), digital modulation and demodulation (ASK, PSK, FSK), phase-locked loops, and baseband transmission.

- **Power Electronics and Electric Machines Laboratory—**Equipped with line-frequency single- and three-phase converters, and switch-mode converters, which in combination with synchronous, induction, and DC machines allow for the experimental study of feedback-controlled motor drives.

• **Embedded Systems Laboratory—** Equipped with PCs for writing and implementing micro-controller-based assembly code software, which allows for the experimental study of real-time interrupt handling, analog-to-digital conversion, serial port reception/ transmission, data acquisition, communicating with external devices, and other issues associated with embedded systems.

• **Control Systems Laboratory—** Equipped to conduct experiments and projects in real- time data acquisition and control, including the capability for modeling and computer control of electromechanical and liquid-level systems.

• **Digital Signal Processing Laboratory—** Equipped to conduct experiments in real- time DSP, using A/Ds, D/As, and DSP boards.

• **Distributed Computing Systems Laboratory—**Equipped with Pentium Xeon dual-processor servers, Pentium Dual-core workstations, and a number of laptops. The research is focused on studying the security, dependability, and concurrency of enterprise-distributed computing systems and platforms, such as CORBA and Web services.

• **Mobile Computing Laboratory—**Equipped with a number of laptops, more than ten PDAs (iPAQs), a dozen wireless sensor nodes, and high performance network simulators. Studies energy efficiency, capacity, mobility support, and interoperability issues in wireless networks, such as mobile ad hoc networks, wireless sensor networks, wireless mesh networks, and pervasive computing systems.

• **Digital Systems Laboratory—** Equipped with logic analyzers, testing equipment, prototyping boards, and workstations running synthesis and simulation software. It is used to conduct basic digital circuit experiments, as well as to design, create prototypes, and test large systems.

• **Computer Networks Laboratory—** Equipped with sixteen workstations and one server computer running the Linux operating system, four Cisco routers, and numerous switches. This lab is used to conduct various computer network experiments and projects, for example, ARP, DHCP, Internet routing, TCP performance evaluation, and IP multicast. It is fully reconfigurable, a luxury that few universities provide. 124 / Engineering Cleveland State University.

• **Software Engineering Laboratory—** Equipped with sixteen workstations and one server. The workstations run both Windows XP and Ubuntu Linux operating systems. The workstations run a variety of software program suites such as Microsoft Visual Studio, Rational Rose, and Eclipse that are used in a number of Software Engineering courses.

• **Communications Senior Design Laboratory—** Equipped with electronics and communications instruments (such as digital oscilloscopes, arbitrary waveform and signal generators, power supplies, multimeters, spectrum analyzers, logic analyzers and power meters), personal computers, simulation software packages, tools, protoboards and components, this laboratory can accommodate up to five independent groups working on a variety of senior design projects in communications.

• **Network Security and Privacy Laboratory—** Configured to emulate real network defense systems. The lab can equip students with real world experience on defending security attacks launched from networks and preserving privacy.

The following facilities also are available to support research:

• **Applied Control Research Laboratory—** Equipped to conduct joint research projects with industry, giving students the opportunity to apply state-of-the-art technology in real- world problem solving.

• **Digital Communication Research Laboratory—**Equipped with electronics and communications instruments, high-speed workstations, and computer -simulation packages (such as Matlab-Simulink) to conduct research projects in digital modulations, error-control codes, satellite communications, mobile wireless communications, and spread-spectrum communications.

- **Digital Systems Research Laboratory—** Equipped with work-stations and testing equipment to do prototyping and implement research projects.

- **Embedded Control Systems Research Laboratory—** Focuses on the theoretical development and real-time implementation of control and signal processing algorithms. Theoretical directions that are of particular interest include optimal control, Kalman filtering, H-infinity control and estimation, neural networks, and fuzzy logic.

- **Power Electronics and Electric Machine Research Laboratory—** Recently been funded by National Science Foundation, NASA Glen research Center and Fenn College of Engineering. It consists of seven state of the art test benches such as: Modular Lab - Volt Power Electronics and Electric Machines Training System, DSPACE controller boards, PWM converters, transducers, sensors, induction, synchronous and DC machines as well as instrumentation. It is fully equipped to conduct research in the power area.

- **Power Systems Research Laboratory—** Fully equipped to conduct research projects in power engineering, requiring personal computers, workstations, or mainframe computers.

- **Mobile Computing Research Laboratory—** Fully equipped with a variety of mobile systems including PDAs (iPAQs), wireless sensor nodes, and software radio platforms to conduct research on energy efficiency, network capacity, mobility support, and interoperability issues in mobile ad hoc networks, wireless sensor networks, wireless mesh networks, and pervasive computing systems.

- **Network Security and Privacy Research Laboratory—** equipped to conduct cutting-edge research in network security and privacy –preserving systems in different network settings including both wired networks and wireless networks.

- **Secure and Dependable Systems Laboratory—** The mission of this laboratory is to advance the state of the art of fault– and intrusion– tolerance techniques for the next generation secure and dependable computer systems.

- **Advanced Engineering Research Laboratory—** Fully equipped to conduct research in digital control, communications, and power electronics applications.

- **Software Engineering Research Laboratory—** This laboratory has the following equipment for conducting research in Software Engineering and Sensor Networks: Six PCs (Pentium) running Windows and Linux connected by a private 100 megabit switched Ethernet, with a server (Xeon) acting as NAT to the Internet via the University's network; Approximately forty Tmote Sky motes, ten MicaZ motes, and a few Imote2 and Sun SPOT motes. In addition, there are about twenty basic sensor boards suitable for prototyping. The lab also has several custom-built sensor boards for conversion to standard serial-port devices, such as GPS or other data logging units; A Pentium-class workstation hosts a research web server, which is suitable for distributing software, and disseminating research results.

- **Laboratories at the NASA Glenn Research Center** for students supported by NASA.

Faculty Research and Publications

The members of the Electrical and Computer Engineering faculty are engaged in research in a number of areas suitable for student theses and dissertations. These include computer architectures, reconfigurable computing systems, computer communication networks, bandwidth and power-efficient modulation schemes, error-control coding, multi-carrier communications, spread-spectrum systems, mobile communication systems, robust communications, power systems operation and control, power electronics and motor drives, system identification, advanced control algorithms, and intelligent control systems. Results of research in these areas are published regularly in refereed journals, such as Transactions of IEEE and IEE Proceedings, and are presented at scholarly conferences and symposia.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Financial Assistance

The Department of Electrical and Computer Engineering offers a number of research and teaching assistantships and graduate tuition grants. In addition, internships sponsored by the NASA Glenn Research Center and General Electric, and fellowships awarded by the Ohio Space Grant Consortium are available.

Admission Information

Admission to the graduate program in electrical engineering is open to qualified students with baccalaureate degrees in engineering or science. A minimum baccalaureate grade-point average of 2.75 is required, but this minimum score does not guarantee admission. Applicants should make arrangements to have official transcripts sent directly from their undergraduate institutions to the Graduate Admissions Office. Two letters of recommendation from individuals familiar with the student's undergraduate or graduate work also are required.

The GRE General section is required if one or more of the following conditions is true:
   • The undergraduate degree was awarded by a college or university outside of the United States or Canada, or by a Canadian institution not accredited by the Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers.
   • An unaccredited college or university awarded the undergraduate degree.
   • The undergraduate degree was in a discipline unrelated to electrical or computer engineering.
   • The student's undergraduate cumulative grade-point average is below 3.0.
   • The year of the baccalaureate degree precedes the date of application to the College of Graduate Studies by more than six years.

International students should refer to the section earlier in this Catalog for more information including testing requirements that demonstrate English-language proficiency. If the GRE is required, a minimum score of 650 on the Quantitative section is required, but this minimum score does not guarantee admission.

There is a preparatory program designed for students without a sufficient background in electrical engineering.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Accelerated Program in Electrical Engineering

The Department of Electrical and Computer Engineering also offers an Accelerated Program that would enable students to a earn a Bachelor of Electrical or Computer Engineering degree as well as a Master of Science in Electrical Engineering in 5 years. Students are eligible to apply after they have completed sixty credit hours in their undergraduate program, with at least 30 credit hours earned at CSU. Once admitted to the combined program, the student may complete up to 12 credit hours of graduate courses while enrolled in the undergraduate program. These 12 credit-hours count towards both the undergraduate degree and the graduate degree requirements, either as electives or as requirements. For more details, please refer to the department webpage http://www. csuohio.edu/engineering/ece/academics/graduate.html.

Degree Requirements

Students in the MS in Electrical Engineering program may elect a thesis option or a non-thesis option. All students, and particularly those intending to pursue a doctoral degree, are encouraged to select the thesis option.

Each student in the program must meet all College of Graduate Studies requirements and the following departmental requirements

Preparatory Program

Graduate students with undergraduate degrees not in Electrical Engineering must complete the following list of courses in addition to the requirements for the MSEE degree. This program is intended to prepare students for graduate courses in electrical engineering. Students who previously took one or more equivalent curse can have the corresponding requirements waived with prior authorization by the program.

Bachelor Graduate other than Engineering or Computer Science	Bachelor Graduates in Electronic Technology	Bachelors in Engineering (not Electrical Engineering)	Bachelor Graduate in Computer Science
ESC 250	ESC 250		
EEC 310 and EEC 311	EEC 311	EEC 311	EEC 311
EEC 313		EEC 313	
EEC 361	EEC 361	EEC 361	
EEC 382		EEC 382	EEC 382
One of the following courses:	One of the following courses:	One of the following courses:	One of the following courses:
EEC 440, EEC 450, EEC 470 or EEC 487	EEC 440, EEC 450, EEC 470 or EEC 487	EEC 440, EEC 450, EEC 470 or EEC 487	EEC 440, EEC 450, EEC 470 or EEC 487

Prior to satisfactory completion of the entire Preparatory Program, no course may be taken toward the fulfillment of the graduate degree program unless authorized by the academic/research advisor.

Credit by Exam
Students can obtain credit for the preparatory courses by taking an examination with the permission of the ECE Graduate Program Committee (GPC). Exams will be offered the week before fall and spring semester each year. The credit by exam fee must be paid and the Graduate Credit by Examination form must be submitted to the GPC at least two weeks before the first day of class. An exam can be attempted only once per course.

Program Options
1. All students:

   a. A maximum of eight credit hours of graduate course work outside of the department may be applied toward the degree with advance approval from the student's advisor.
   b. The seminar course EEC 601 and 400-level courses may not be applied for credit toward the MSEE degree.
   c. Students must take at least four course subjects from their area of specialization including its core course(s).

Areas of specialization and their core courses are:

Communication Engineering

Core Courses
EEC 512 Probability and Stochastic Processes (4 credits)
EEC 651 Digital Communications (4 credits)

Electives
  EEC 530 Digital Signal Processing (4 credits)
  EEC 650 Signal Detection and Estimation (4 credits)
  EEC 652 Error Control Coding (4 credits)
  EEC 653 Information Theory (4 credits)
  EEC 654 Mobile Communications (4 credits)
  EEC 655 Satellite Communications (4 credits)

Control Engineering

Core Courses
  EEC 510 Linear Systems (4 credits)
Electives
  EEC 512 Probability and Stochastic Processes (4 credits)
  EEC 517 Embedded Systems (4 credits)
  EEC 542 The Art and Science of Feedback Control (4 credits)
  EEC 640 Advanced Control System Design (4 credits)
  EEC 641 Multivariable Control (4 credits)
  EEC 642 System Identification (4 credits)
  EEC 643 Nonlinear Systems (4 credits)
  EEC 644 Optimal Control Systems (4 credits)
  EEC 645 Intelligent Control Systems (4 credits)
  EEC 646 Dynamics and Controls of MEMS (4 credits)
  EEC 647 Robot Dynamics and Control (4 credits)

Power System And Power Electronics Engineering

Core Courses
  EEC 571 Power Systems (4 credits)
  EEC 574 Power Electronics II (4 credits)
Electives
  EEC 510 Linear Systems (4 credits)
  EEC 561 Electromagnetic Compatibility (4 credits)
  EEC 640 Advanced Control System Design (4 credits)
  EEC 641 Multivariable Control (4 credits)
  EEC 643 Nonlinear Systems (4 credits)
  EEC 644 Optimal Control Systems (4 credits)
  EEC 670 Power Systems Operation (4 credits)
  EEC 671 Power Systems Control (4 credits)
  EEC 673 Power Electronics & Electric Machines (4 credits)

Computer Engineering

Core Courses
  EEC 581 Computer Architecture (4 credits)
  EEC 584.Computer Networks (4 credits)
Electives
  EEC 517 Embedded Systems (4 credits)
  EEC 521 Software Engineering (4 credits)
  EEC 580 Modern Digital Design (4 credits)
  EEC 587 Rapid Digital System Prototyping (4 credits)
  EEC 680 High Performance Computer Architecture (4 credits)

EEC 681 Distributed Computing Systems (4 credits)
EEC 683 Computer Networks II (4 credits)
EEC 684 Parallel Processing Systems (4 credits)
EEC 685 Modeling and Performance Evaluation of Computer Systems
EEC 686 Advanced Digital Design (4 credits)
EEC 687 Mobile Computing (4 credits)
EEC 688 Secure and Dependable Computing (4 credits)

  d. Within the first four weeks of the first semester of his or her master program of study, a student must submit a plan of study that requires the approval by advisor or program committee.

2. Thesis Option:

  a. A minimum of 30 total credit hours, including at least six credit hours of thesis, and at least 24 credit hours of course work. The course work must include at least eight credit hours of 600-level EEC courses.
  b. Successful completion and defense of a thesis. A graduate committee guides the thesis work.
  c. Thesis students must give an oral presentation of the thesis.

3. Non-thesis Option:

  a. A minimum of 32 total credit hours, including at least twelve credit hours of 600-level EEC courses.

Exit Requirements

Thesis students must follow the Thesis and Dissertation Format Guidelines, available on the College of Graduate Studies web page:
http://www.csuohio.edu/gradcollege/students/thesis/.

Acceptance of the thesis by the thesis committee and the passing of an oral defense of the thesis are required.

Non-thesis students must complete the course requirements.

For further information about the MS in Electrical Engineering program, contact the department at (216) 687-2589.

Master of Science in

Engineering Mechanics

An interdisciplinary program administered by the Department of Civil and Environmental Engineering

Department of Civil and Environmental Engineering

Stilwell Hall 107
(216) 687-2400
http://www.csuohio.edu/engineering/academics/gradprograms.html

Steve Duffy, Chair
Jerzy Sawicki, Graduate Program Director

Introduction

The objective of the degree program is to train students in the analytical and computational methods of structural mechanics, the analysis of the mechanical behavior of solids, the fundamentals of material science, and the processing of materials. Recent advances in computational solid mechanics with computer-based algorithms have revolutionized the ability to simulate intelligently both linear and nonlinear structural phenomena. The engineering of advanced materials requires expertise ranging from stress analysis to materials science. Due to this diversity, the program is interdisciplinary in nature with contributions from the Chemical, Civil and Environmental, and Mechanical Engineering graduate programs. It also prepares students for continued study in the Doctor of Engineering program.
Two areas of specialization are available:
1. Structural Mechanics
2. Mechanics and Materials

The Structural Mechanics track considers analytical and computational approaches to mechanics and materials. It emphasizes numerical formulations and computer simulations of basic structural and material phenomena from a stress/ strain viewpoint. The Mechanics and Materials track concentrates on the material science aspects of materials, including the laboratory testing and development and investigation of new engineered materials. All students must complete a common set of core courses specified.

Faculty Research

The Engineering Mechanics program is an interdisciplinary program involving faculty members from the departments of Chemical, Civil and Environmental, and Mechanical Engineering

Students may become active participants in the following areas of faculty research:

• Research in nonlinear finite-element analysis, including the development of automatic, incremental algorithms and the formulation of advanced shell-element capabilities.
• Deformation processing of materials, including computer simulation of forging, rolling, and extrusion.
• Non-Destructive Evaluation (NDE) of material properties, including location and size of flaws, voids, and impurities; materials include concrete, polymer, matrix, and ceramic composites.
• Solidification processing, development of elevated temperature materials, atomization-consolidation, and evaluation of powder metallurgy super alloys.
• Development of optimal methods for vapor-phase lubrication of metals, ceramics, and composites.
• Structural reliability and probabilistic mechanics, inelastic deformation, analysis of powdered metals, metal matrix composites, and ceramic matrix composites.
• Construction materials, including high-performance concrete, concrete paving materials and tests, performance of materials, and composites.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Facilities

New laboratory facilities are available as part of the renovation of Stilwell Hall. A strength of materials laboratory, an experimental stress lab, a materials laboratory, and concrete mixing and testing lab are available. The College of Engineering has a scanning electron microscope, an X-ray diffraction system, an ultrasonic testing facility, four tension-compression testing machines, a computer-controlled MTS dynamic/fatigue test machine, and various NDE Systems.

Financial Assistance

Graduate teaching and research assistantships are available to qualified students. Assistants receive tuition support and a stipend. Information about assistantships may be obtained by contacting the Civil and Environmental Engineering Department.

Admission Information

Students with undergraduate degrees in civil or mechanical engineering may be admitted directly to the Structural Mechanics track. Students with undergraduate degrees in chemical, civil, mechanical, or materials engineering may be admitted directly to the Mechanics and Materials track. Students with degrees in other areas of engineering or science may qualify for admission after completing prerequisite courses. A minimum baccalaureate grade-point average of 2.75 usually is required.

The GRE General section is required if one or more of the following conditions is true:

    • The undergraduate degree was awarded by a college or university outside of the United States, or by a Canadian institution not accredited by the Canadian Engineering Accreditation

Board of the Canadian Council of Professional Engineers.
   • An unaccredited college or university awarded the undergraduate degree.
   • The student's undergraduate cumulative grade-point average is below 2.75.
   • The year of the baccalaureate degree precedes the date of application to the College of Graduate Studies by more than six years; however, in this case, the examination requirement may be waived, with program approval, if the applicant's undergraduate grade-point average is 3.0 or above.

If the GRE is required, a minimum score at the 80th percentile on the Quantitative section usually is required.

All non-native English speakers must demonstrate proof of English-language proficiency. Any individual who has earned a bachelor's or higher degree from a U.S. institution, in which the primary language of instruction is English, is not required to take an English-language proficiency examination.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

In addition to the College of Graduate Studies degree requirements, students in either track must satisfy the following requirements:

1. Thirty credit hours are required for the degree.

2. A student must complete the following core courses:

Structural Mechanics Track

   MME 510 Structure of Materials (4 credits)
   MME 511 Matrix Methods of Structural Analysis (3 credits)
   MME 512 Finite Element Analysis I (3 credits)
   MME 513 Advanced Strength of Materials (4 credits)
   MME 604 Elasticity (4 credits)

Mechanics and Materials Track

   MME 510 Structure of Materials (4 credits)
   MME 513 Advanced Strength of Materials (4 credits)
   MME 524 Nondestructive Evaluation (4 credits)
   MME 604 Elasticity (4 credits)

3. With advisor approval, a maximum of six credits of 400-level courses that are not offered by the departments of Chemical, Civil and Environmental, and Mechanical Engineering may be applied toward the degree. The remaining elective courses are selected from engineering courses

numbered 500 and above, with advisor approval. Most MME courses are cross-listed with courses in the Chemical, Civil and Environmental, and Mechanical Engineering departments. Non-MME courses must be approved in advance by the graduate review committee.

4. A six-credit thesis or three-credit research project is required of each student. A graduate committee is formed to guide thesis work. A faculty advisor is required for the research project.

5. On or before completing nine credit hours of course work, a student must submit a plan of study, which requires both advisor and program committee approval.

Exit Requirements

Theses must follow the format noted in Thesis and Dissertation Format Guidelines, available on the College of Graduate Studies web page: http://www.csuohio.edu/gradcollege/student/thesis/thesis.htm

Acceptance of the thesis by the committee and the passing of an oral defense of the thesis are required.

Research project students must present an acceptable written report to their faculty advisor and give an oral presentation of the research activity to the program faculty

Master of Arts in

English

Department of English

Rhodes Tower 1815
(216) 687-3951
http://www.csuohio.edu/class/english/degreeprogcertif.html

David Larson, Chair
Jennifer M. Jeffers, Graduate Program Director
Neal Chandler, Director, Creative Writing Program
Mary Murray, Director of the Writing Center

Areas of Study

Literature and Critical Interpretation
Creative Writing

The Program

The Master of Arts in English offers two concentrations: literature and creative writing. The literature concentration emphasizes research and the application of various critical approaches to problems in literature and composition. The creative writing concentration emphasizes professional writing and the analysis of literary works from the point of view of the practitioner. Both concentrations provide graduate students with course work in practical criticism, electives in literature and linguistics, and opportunities for the study of composition theory and the practice of teaching writing to beginning students. The program is designed to meet the needs of part-time and full-time students. Core courses and graduate seminars are offered in the evenings. Students are advised to take their core-course requirements during their first two semesters of graduate study. A departmental Committee on Graduate Studies, chaired by the Director of Graduate Studies, governs the Master of Arts program in English. The Committee on Graduate Studies administers admission of new students, appointment of graduate assistants, selection of Andrews Award winners, student petitions, and policy issues concerning the Master of Arts curriculum. Prospective and current students should consult the Handbook for Graduate Studies in English at: http://www.csuohio.edu/class/english/grhandbook/

Faculty Research and Resources

The graduate faculty of the English Department has published over thirty books and several hundred major articles in the fields of literary scholarship, linguistics, and critical theory. The

range of research interests is illustrated by a partial list of books published by the faculty. Medieval and Renaissance studies are represented by Earl Anderson's Cynewulf (Fairleigh Dickinson University Press). Eighteenth-century and nineteenth-century studies are represented by Gary Dyer's British Satire and the Politics of Style (Cambridge University Press), by Rachel Carnell's Partisan Politics, Narrative Realism, and the Rise of the British Novel (Palgrave Macmillan), and by her scholarly edition of the works of Delarivier Manley (Pickering & Chatto). Modern and contemporary literature is represented by Adrienne Gosselin's Multicultural Detective Fiction: Murder from the "Other" Side (Garland), Jeff Karem's The Romance of Authenticity (University of Virginia Press), by Jennifer Jeffers' The Irish Novel at the End of the Twentieth Century: Gender, Bodies, and Power (Palgrave), and by her Britain Colonized: Hollywood's Appropriation of British Literature (Palgrave Macmillan). Critical theory is represented by Jennifer Jeffers' Uncharted Space: The End of Narrative (Peter Lang Publishers), by Earl Anderson's Grammar of Iconism (Fairleigh Dickinson University Press), and by his Folk-Taxonomies in Early English (Faileigh Dickinson University Press). Linguistics and philology are represented by John Greppin's Medieval Arabic-Armenian Botanical Dictionary (Vienna: Mechitaristen-Buchdruckerei), The Diffusion of Greek Medicine into the Middle East and the Caucasus (Caravan), and fourteen other books. Composition studies are represented by Mary Murray's Artwork of the Mind: An Interdisciplinary Description of Insight and the Search for It in Student Writing (Hampton Press), Ted Lardner and Arnetha Ball's African American Literacies Unleashed: Vernacular English in Composition Classroom (Southern Illinois University Press) and by Ted Lardner and Todd Lundberg's Exchanges: Reading and Writing about Consumer Culture (Longman). Research in Language Arts is represented by Adrienne Gosselin's Reflections Sweet and Sour: Language Arts and Prevention Assessment (Rose Dog Press).

The creative-writing faculty has published poetry, fiction, and creative non-fiction in dozens of creative-writing periodicals, have plays performed, and have read or performed poetry in a variety of venues. Book titles include, in the field of fiction, Sheila Schwartz's Imagine a Great White Light, winner of the Pushcart Editor's Book Award, and Neal Chandler's Benediction (University of Utah Press), and, in the field of poetry, Nuala Archer's From a Mobile Home (Galway: Salmon Press).

The English Department is home to The Cleveland State University Poetry Center, which has published more than 135 poetry books since 1971 and averages three new books a year. Recent publications include Gaspar Pedro Gonzalez's A Dry Season: Poems in Q'anjob'al Maya (one of the few books of contemporary Mayan poetry to be published anywhere), Alison Luterman's The Largest Possible Life, and Ohio poet Nin Andrews' The Book of Orgasms. The Poetry Center has won several national and regional awards for its publications. Carol Potter's Short History of Pets won the 2001 Balconnes Prize for Poetry. Jared Carter's After the Rain won the 1995 Poets' Prize. In 1996, The Poetry Center's Off the Page, a videotape of performance poetry, won the Ohio Board of Regents' W. E. B. DuBois Award for Service to the Community.

The English Department houses three journals: the Annual of Armenian Linguistics; Raft: a Journal of Armenian Literature and Criticism; and Whiskey Island, a student-edited literary magazine.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Financial Assistance

Graduate assistantships in English provide students with an opportunity to teach in the Writing Center, assist faculty on editorial or other academic projects, and in some cases to teach Freshman English classes. All graduate assistantships provide tuition waivers and a stipend. A few tuition waivers may be available for part-time students. Students must apply by February 1 in order to be considered for a graduate assistantship in the following academic year. The department also provides tuition scholarships as prizes in annual creative-writing contests and an annual Andrews Award, a cash prize (normally $1,000) to assist a graduate student in the completion of a thesis of exceptional merit.

Career Information

Students who are pursuing the MA in English as a means of enhancing their teaching careers should select the literature concentration. Students who are taking the MA as preparation for doctoral study in English should select the literature concentration, should take as many research seminars (ENG 695) as possible, and should take ENG 506 Composition Theory in order to enhance their eligibility for doctoral teaching assistantships at other universities. This course of study also is recommended for students who are preparing for careers teaching writing or administering writing centers in community colleges and schools. Cross-listed electives in linguistics are offered for students who are pursuing Teaching English to Speakers of Other Languages (TESOL) endorsement concurrently with the MA in English. The creative writing concentration is recommended for students who desire increased competitiveness in creative and professional writing fields or in allied careers in editing, communications, and public relations.

Admission Information

To be admitted to the MA program in English, an applicant must have a baccalaureate degree from an accredited college or university with an overall grade-point average of 2.75 or higher and a 3.0 average in courses in English. Applicants must provide transcripts of all previous college work, two letters of recommendation, and a writing sample. Applicants seeking admission to the literature concentration should submit a sample of academic writing, typically a research paper from an undergraduate literature course. Applicants seeking admission to the creative writing concentration should submit a portfolio of their creative work in addition to an analytical paper. Admission to the creative writing concentration is a separate decision made by the creative writing faculty once a student has been admitted into the MA program.

An applicant whose undergraduate major was in a field other than English may be required to take a certain number of undergraduate English courses as a condition for admission to the MA program. These courses do not count toward degree requirements.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Cross-Registration

Students may petition the Committee on Graduate Studies to take up to eight elective credits in graduate courses outside the English Department, in cases where such courses meet the students' particular research needs. A student combining TESOL endorsement with the MA in English, for example, may be allowed to count graduate-level Methods in TESOL courses as English electives.

Degree Requirements

(33 credits minimum)

Literature Concentration:

1. Core courses (8 credits): ENG 510 and ENG 511.
2. Graduate seminars (8 credits): ENG 695 (taken twice, with change of topic).
3. Electives (12 credits): courses numbered ENG 506 and higher; at least one additional graduate seminar is recommended.
4. Thesis (5 credits): ENG 699. To earn these credits, the student must prepare an acceptable master's thesis of 30 to 50 pages, written under the direction of two English graduate faculty members.
5. A successful master's examination based on the student's thesis topic.

Creative Writing Concentration:

1. Core courses (8 credits): ENG 510 and ENG 512.
2. Graduate seminars (8 credits): ENG 695 (taken twice, with change of topic); creative writing students may substitute ENG 535 or another modern or contemporary literature course for one of the 695 seminars.
3. Electives (12 credits): courses numbered ENG 506 and higher; at least one creative writing course (ENG 580 or ENG 602) is recommended.
4. Thesis (5 credits): ENG 699. To earn these credits, the student must be accepted into the creative writing program and must prepare a successful master's creative writing project under the direction of two English graduate faculty members, viz., a collection of short stories, essays, or poems, or a play or part of a novel, judged to be of high quality, with an analytical section of 15-20 pages, placing the work in appropriate literary and theoretical context.
5. A successful master's examination based on the student's creative writing project.

Composition course requirements for teaching assistants: Graduate students who are beginning as teaching assistants must take ENG 506 (4 credits) and ENG 507 (1 credit). Graduate

students who completed ENG 308 Composition Theory as undergraduates are required to attend ENG 506 sessions in fall semester but should not register for credit for this course. Graduate students who completed 4 credits of ENG 309 Writing Center Practicum as undergraduates are required to attend ENG 507 workshops in fall semester but should not register for credit for this course.

Master of Science in

Environmental Engineering

Department of Civil and Environmental Engineering

Stilwell Hall 107
(216) 687-2400
http://www.csuohio.edu/engineering/civil/programs.html

Steve Duffy, Chair
Lutful Khan, Graduate Program Director

Introduction

The Master of Science in Environmental Engineering degree is offered through the Department of Civil and Environmental Engineering in the Fenn College of Engineering. This program represents the engineering component of the cross-disciplinary, environmental academic studies program at Cleveland State University.

Although this program is designed for individuals with a bachelor's degree in engineering, non-engineering graduates also can take advantage of this program.

Faculty Research and Publications

Faculty research and publications reflect areas in which students may conduct their theses or project investigations. Faculty research areas include adsorption, waste-site remediation, pollution prevention, green manufacturing, industrial waste treatment, brownfields, air-pollutant control, biological treatment processes, waste recycle and reuse, solid-waste engineering, physiochemical treatment processes, soil decontamination, combustion-process emissions, energy conversions, risk assessment, environmental policy, and real-time environmental monitoring.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Financial Assistance

University-supported assistantships and graduate tuition grants are available to qualified graduate students on a competitive basis. Additional assistantships and support are available through the Department of Civil and Environmental Engineering; the Environmental Institute; and external federal, state, and industrial grants of program faculty. Applicants should indicate their interest in assistantships or tuition grants on the Application for Graduate Admission.

Accelerated Program in Environmental Engineering

The Department of Civil and Environmental Engineering also offers an Accelerated Program that would enable students to a earn a Bachelor of Civil Engineering degree as well as a Master of Science in Environmental Engineering in 5 years. Students are eligible to apply after they have completed sixty credit hours in their undergraduate program, with at least 30 credit hours earned at CSU. Once admitted to the combined program, the student may complete up to 11 credit hours of graduate courses while enrolled in the undergraduate program. These 11 credit-hours count towards both the undergraduate degree and the graduate degree requirements, either as electives or as requirements. For more details, please refer to the department webpage http://www.csuohio.edu/civileng/

Admission Information

Admission to the graduate program in environmental engineering is open to qualified students with a baccalaureate degree in engineering or science. A minimum baccalaureate grade-point average of 3.0 usually is required. Applicants from undergraduate programs other than environmental, civil, and chemical engineering may be required to take additional courses.

The GRE General section is required if one or more of the following conditions is true:

* The undergraduate degree was not in environmental, civil, or chemical engineering.
* The undergraduate degree was awarded by a college or university outside of the United States, or by a Canadian institution not accredited by the Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers.
* An unaccredited college or university awarded the undergraduate degree.
* The student's undergraduate cumulative grade-point average is below 2.75.
* The year of the baccalaureate degree precedes the date of application to the College of Graduate Studies by more than six years; however, in this case, the examination requirement may be waived, with program approval, if the applicant's undergraduate grade-point average is 3.0 or above.

If the GRE is required, the admission decision is based on the applicant's performance on the quantitative section of the GRE along with the undergraduate grade-point average. A minimum of the 50th percentile on the GRE quantitative is required, but this minimum score does not guarantee admission.

All non-native English speakers must demonstrate proof of English-language proficiency. Any individual who has earned a bachelor's (or higher) degree from a U.S. institution, in which the primary language of instruction is English, is not required to take an English-language proficiency examination. International students who want to be considered for teaching assistantships are advised to take the Test of Spoken English (TSE).

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

Students in the MS in Environmental Engineering program may elect a thesis or non-thesis option. In addition to University requirements, a master's candidate must meet the following departmental requirements:

   1.   Students following the non-thesis option must complete a minimum of 33 credit hours for the degree, including the core-competency requirements, the engineering core curriculum, and two additional courses from the environmental engineering elective courses listed in this section.

   2.   Students following the thesis option must complete a minimum of 31 credit hours for the degree, including the core competency requirements, the engineering core curriculum, and a minimum of six credit hours of thesis.

Core Competency Requirements
(8 to 10 credits)

Competency requirements introduce students to areas outside of their major area of study and promote an interdisciplinary approach to solving environmental problems. All students enrolled in environmental graduate-degree programs are required to complete these courses, which are listed below. The environmental engineering faculty determines whether completion of a similar course(s) satisfies a specific competency requirement.

Core competencies for the MS in Environmental Engineering program are fulfilled through courses in science, law/policy, and technical writing.

1. Science
EVS 506 Ecosystem Science (3 credits) or PHY 570 Environmental Physics (4 credits)
2. Law/Policy
LAW 671 Environmental Law (3 credits) or ENV 652 Environmental Policy and Administration (4 credits)
3. Technical Writing
ENG 509 Technical Writing (2 credits)

Core Curriculum
(17 credits)

Required core courses in the MS in Environmental Engineering program provide a sound foundation for environmental work, regardless of an individual's background in engineering. Since some of these core courses are prerequisites for elective courses, it is generally helpful to complete core courses early in the program.

The core courses are:

  EVE 534 Environmental Transport Phenomena (4 credits)

EVE 570 Environmental Chemistry (4 credits)
EVE 572 Biological Principles of Environmental Engineering (4 credits)
EVE 595 Environmental Seminar (1 credit)
EVE 671 Physical and Chemical Principles of Environmental Engineering (4 credits)

If a student has already completed a course with content very similar to a core course, he or she may be able to substitute an elective course for the specific required core course, with program approval.

Elective Courses:

Non-thesis students are required to take two elective courses from the list below:

EVE 533 Pollution Prevention and Sustainability (4 credits)
EVE 540 Soil Stabilization and Decontamination (4 credits)
EVE 564 Groundwater Hydrology (3 credits)
EVE 566 Groundwater Modeling (3 credits)
EVE 574 Industrial Wastewater Treatment (4 credits)
EVE 575 Solid and Hazardous Waste Engineering (4 credits)
EVE 576 Environmental and Occupational Health Engineering (4 credits)
EVE 578 Water Treatment Plant Design (4 credits)
EVE 579 Wastewater Treatment Plant Design (4 credits)
EVE 581 Air Pollution and Abatement (4 credits)
EVE 585 Hazardous Waste Site Remediation (4 credits)

In addition to the courses listed, a maximum of four credits of Special Topics (EVE 593) courses may count toward master's degree requirements. Students must obtain approval from their advisors prior to registration for Special Topics.

Thesis/Research Courses

EVE 697 Master's Research (1-8 credits per semester)
EVE 699 Master's Thesis (1-8 credits)

Transition Courses

Transition courses prepare incoming students, who do not have a background in engineering, for the graduate program. The requirements are presented below. Courses previously completed— and to some extent the applicant's professional experience—are compared to the content of the transition courses. Based on an evaluation of the applicant's academic and professional background, the specific courses required to satisfy the Transition curriculum are determined. Transition courses do not count toward the degree.

A non-degree graduate student may take up to three courses in the MS program, provided that all

prerequisites are satisfied, while taking the Transition courses.

Transition Curriculum Science Requirements

One year of chemistry (CHM 261/266 and CHM 262/267*)
One year of physics (PHY 241/242*)

Mathematics Requirements

One year of calculus (MTH 181 and MTH 182*)
Statistics (ESC 310*)
Differential equations (ESC 250*)
Linear algebra (ESC 350*)

Engineering Requirements

Statics (ESC 201*)
Fluid mechanics (ESC 301*) Thermodynamics (ESC 321*)
Hydraulics (CVE 361*)
*Cleveland State equivalent

Personalized MS Program

A faculty advisor is assigned to each student when he or she enters the MS program. The student must meet with the advisor to establish a personalized program plan.

The personalized program plan addresses which core competency courses are required, any engineering core courses for which a substitution is sought, the elective area of concentration, and thesis/project requirements. This plan must be approved by the Environmental Engineering Coordinating Committee (EECC), which is comprised of Environmental Engineering faculty.

If Core Competency Courses are required, the EECC may allow these courses to count as electives toward the degree, but not toward the elective area of concentration.

To receive approval for an Engineering Core Course, the student must submit a petition to the EECC requesting a course substitution for a specific elective course. If granted, this does not reduce the number of credit hours needed for graduation, but allows individuals to take other electives.

Selecting a thesis faculty advisor should be done early in the program. The advisor helps the student establish a thesis Advisory Committee of faculty from the student's area of interest. After the committee has been established, the student is required to prepare a research proposal that must be approved by the Advisory Committee. The committee members also monitor the progress of the student's thesis.

Exit Requirements

Theses must follow the format noted in Thesis and Dissertation Format Guidelines, available on the College of Graduate Studies web page: http://www.csuohio.edu/gradcollege/student/thesis/thesis.htm

Students must have their thesis approved by the graduate faculty committee and pass an oral defense of the thesis. Non-thesis students must complete all course requirements.

Master of Science in

Environmental Science

This degree is part of the Environmental Studies Program at Cleveland State University

Department of Biological, Geological, and Environmental Sciences

Science Building Room 219
(216) 687-2440
http://web.bges.csuohio.edu/

Anton A. Komar, Ph.D. and Crystal M.Weyman, Ph.D.:Graduate Program Director

Introduction

The Master of Science degree in Environmental Science is offered by the Department of Biological, Geological, and Environmental Sciences (BGES) as one of three interdisciplinary graduate programs in the Environmental Studies Program at Cleveland State. The degree program prepares students for a wide range of professional careers that require knowledge of biology, chemistry, or earth sciences in order to address environmental issues. The program is open to both full-time and part-time students.

The program is administered by the department's graduate faculty, which includes Cleveland State faculty, research scientists at the Lerner Research Institute of the Cleveland Clinic, and several Cleveland State University adjunct faculty members from other local institutions.

Faculty Research

Faculty research in the environmental science area includes plant and animal ecology, species evolution, urban ecology and geology, remote sensing, local flora and fauna, microbiology, population genetics, ecological physiology, parasitology, modeling, pollution, waste management, and aquatic biology. The department is active in several cooperative projects that provide additional research opportunities for graduate study. The Cuyahoga River Watershed Project, supported by a group of local institutions, including several colleges and universities and the Ohio EPA, involves an interdisciplinary study of the ecology of an urban river. The OhioView consortium studies the application of remote sensing to a variety of environmental issues.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Career Information

The MS degree program, with its research thesis focus, prepares students conceptually and technically for careers in applied or basic research in academic, government, or business settings. The graduate program attracts teachers, environmental scientists, and management and staff in diverse businesses with an environmental focus. The graduate program is open to full-time and part-time students, as well as to non-degree students who are preparing themselves for entry into a degree program or are seeking to keep abreast of new developments in their field of interest.

Admission Information

Applicants must meet the College of Graduate Studies admission requirements regarding grade-point average, Graduate Record Examination (GRE) scores, and TOEFL results. A bachelor's degree is preferred in a science appropriate to the student's area of concentration (biology, chemistry, or geology). Transcripts must be submitted for all undergraduate and any previous graduate study. Scores for the GRE General Test must be submitted by ETS, and at least two letters of recommendation and a statement of personal career goals and research interests must be submitted by the applicant. Scores on the GRE must average at the 50th percentile or above. Applicants whose native language is not English must demonstrate English language proficiency by submitting official scores for the TOEFL, the Michigan Test, or an equivalent examination, unless they hold a degree from a U.S. institution. (See the section on International Students in this Catalog.)

Applicants must have a minimum of one year of calculus, one year of physics, one year of biology, geology, or chemistry, and one term of a computer course or demonstrated proficiency in computer usage. Questions should be directed to the BGES Graduate Program Director.

Submit application materials to the Graduate Admissions Office (U.S. citizens and permanent residents) or the Center for International Services and Programs (foreign applicants and current visa holders).

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Graduate Assistantships/ Fellowships

Full-time graduate students pursuing thesis research may be supported by the department through teaching assistantships or fellowships for a period that, as a rule, should not exceed three years. This support includes tuition and a stipend. Teaching assistants are required to work twenty hours per week and must enroll as full-time students (currently nine credit hours, including research credits). Research assistantships may be available through the research grants of individual faculty members. A limited number of graduate tuition grants, which carry a service requirement of ten hours of work per week, are awarded to students with superior credentials as funds are available. Requests for assistantships should be indicated on the Application for

Graduate Admission or by letter to the BGES Graduate Program Director. Awards are competitive and are based on all application materials. Initial decisions usually are made based on completed applications on hand in March for fall semester and, if assistantships are available, in November for spring semester. Required minimums for grade-point average and for GRE and TOEFL scores are higher than those used for admission to the program. Applicants whose native language is not English must be assessed and certified as proficient in spoken English to hold a teaching assistantship.

Degree Requirements

Besides course work, the MS in Environmental Science degree requires a thesis based on original scientific research of sufficient quality for publication in a peer-reviewed scientific journal.

Before registering for courses, all newly admitted students must meet with the BGES Graduate Program Director. All students are required to enroll in the BGES Graduate Orientation course (BIO 500) and to attend departmental seminars. Students also must comply with all College of Graduate Studies requirements and procedures.

A student is admitted to candidacy when the following requirements are met:

1   Deficiencies in undergraduate preparation are corrected.
2   Eight graduate hours of course work are completed with a grade-point average of 3.0 or better.
3   A plan of study and the research proposal are approved by the Advisory Committee and accepted by the Graduate Committee, and the Cleveland State Thesis Proposal Approval Form is submitted to and approved by the Dean of the College of Graduate Studies.

Students in the MS program in Environmental Sciences must maintain a grade-point average of 3.0 or better. A student receiving two grades of B– or one grade of C or below is subject to review by the BGES Graduate Committee; dismissal from the graduate program may be recommended.

The Program

The following are specific requirements for the MS in Environmental Science degree. Complete, current program requirements and any changes are described in the BGES Graduate Program Handbook, available from the BGES Graduate Program Office.

1.   Selection of a Major Advisor and an Advisory Committee. The Major Advisor typically is the primary supervisor and source of support for the student's thesis research. Together, the Major Advisor and Advisory Committee supervise the student's plan of study and research proposal, monitor the student's progress, certify that requirements have been met in a timely fashion, and process all petitions, progress reports, and other communications with the Graduate Committee. In keeping with the program's interdisciplinary focus, the Advisory Committee must include one member of the Cleveland State graduate faculty from outside of BGES.

2. Completion of a minimum of thirty-two credit hours with a minimum grade-point average of 3.0 distributed as follows:

a. **Total course work and research**
Courses – 22 credit minimum
Thesis Research – 8 credit minimum
Additional Courses or research – 2 credits
Total Minimum – 32 credits

*College of Graduate Studies regulations specify that all EVS or BIO courses must be 500-level or above; not more than seven credit hours of 400-level courses in related areas and not offered by the BGES Department may be included if approved by the Advisory Committee and BGES Graduate Committee.

b. **Required courses:** Each student must complete BIO 500 (Graduate Orientation) and BIO 540 (Biostatistics), or an equivalent graduate-level statistics course.

c. **Required core competencies:**
Technical writing (e.g., ENG 509), Law/Policy (e.g., LAW 671 Environmental Law or UST 652 Environmental Policy), and Technology (e.g., CVE 450 Environmental Technology). Core competency requirements can be satisfied with the indicated Cleveland State courses or equivalent courses taken before or after entry into the program.

d. **Seminars:** Each student must complete an Environmental Seminar (BIO 595).

e. **Environmental field experience:**
Each student must complete six credit hours of course work that provides experience in field research. This requirement may be met by courses like BIO 651 or BIO 653 (Advanced Research in Field Biology) that emphasize field methods or by supervised, individual thesis research (BIO 691 or 695) conducted in a field setting.

f. **Concentration area:** Each student formulates an individual plan of study in consultation with the Major Advisor and the Advisory Committee. The student chooses one of three areas of concentration: Environmental Biology, Environmental Chemistry, or Environmental Earth Sciences. The plan of study must include at least nine credit hours of course work in the area of concentration, as well as any additional elective courses needed to fulfill degree requirements described above.

g. **Thesis research:** The student's individual research project should be of sufficient quality to be published in a refereed scientific journal.

3. Continuous enrollment for a minimum of one credit hour from admission to candidacy until graduation.

4. **Exit requirement:**

    a. Presentation of the thesis research at a departmental seminar.

    b. Defense of the thesis before a faculty committee. Two unsuccessful attempts to defend the thesis shall result in a recommendation for dismissal from the program.

    c. Submission of the approved thesis, together with an article or manuscript, based on the thesis, in a format suitable for submission to a refereed scientific journal.

JD/MS in Environmental Science Program

The combined curriculum leading to the degrees of Juris Doctor (JD) and Master of Science in Environmental Science (MSES) is designed to permit the student to complete both degrees over four years instead of the five years that would normally be required to complete the two degrees separately.

Entry into this dual degree program can occur in one of two ways. Applicants who are not currently enrolled in either the JD or the MS in Environmental Science degree program must apply for admission to both the College of Graduate Studies and the College of Law concurrently and follow the normal procedures of the respective colleges. Application for admission must be specifically for the dual degree program. Students who enroll in this manner usually should plan to spend their first year taking courses exclusively in the JD program and their second year taking courses mainly in the MS in Environmental Science program. In the third and fourth years, students take courses in both degree programs. Applicants who are currently enrolled in either the JD or the MS in Environmental Science degree program must apply for admission to the other degree program prior to the completion of 60 credit hours or two years of full-time study in the JD program, or prior to the completion of 18 credit hours or one year of full-time study in the MS in Environmental Science program. Students who enroll in this manner are advised as to how to schedule the remainder of their courses in the dual degree program. Under no circumstances will a student be allowed to take more than eight years to complete the combined programs.

The dual degree program requires a total of four academic years of full-time study. The Juris Doctor requirements are fulfilled by the completion of 80 credit hours of work in the College of Law, including all required courses and 10 semester credit hours from courses cross-listed with the College of Science (Thesis Research, 2-3 credits from a Technical Writing Course (ENG 509 in the College of Liberal Arts and Social Sciences), and one additional course taken in the College of Science. The Master of Science in Environmental Science requirements are fulfilled by the completion of the following:

   a.   24 credit hours of course work, including all required courses, concentration electives and field experience from courses in the College of Science, any required interdisciplinary core competency courses (2-3 credits of Technical Writing, 3.g. ENG 509, and 3 credits from a course in Environmental Technology taken in the College of Engineering), and 3 credits from a course in Environmental Law taken in the College of Law, and
   b.   8 semester credit hours for a Thesis project (EVS/BIO 691/695).

The minimum total number of credits required for the MSES degree is 32. In order to ensure that the degree requirements of both programs are fully maintained, while at the same time permitting the saving of a full academic year, students who pursue the dual degree program are not permitted to take courses outside either the College of Law or the Master of Science in Environmental Science program for credit toward either degree. A student is allowed to receive credit toward the dual degrees for an elective course taken outside the Colleges' academic programs with prior written approval of the Directors of the MSES, and JD/MSES Programs.

Submit College of Graduate Studies application materials to the Graduate Admissions Office. Contact the College of Law regarding law application procedures.

Master of Arts in

Environmental Studies

Maxine Goodman Levin College of Urban Affairs

Urban Affairs 231
(216) 687-2136
http://urban.csuohio.edu/academics/graduate/maes/

Sanda Kaufman, Graduate Program Director

Areas of Study

Policy and Administration
Environmental Planning
Geographic Information Systems (GIS)
Environmental Nonprofit Management

Introduction

The Master of Arts in Environmental Studies, housed in the Department of Urban Studies, prepares students for careers in environmental policy and management through a broad, interdisciplinary course of study.

The task at the core of the graduate Environmental Studies program is the development of human institutions, organizations, and behaviors that restore and protect the environment, requiring careful study of both natural and human systems and their interdependence.

Faculty Research and Publications

Members of the Master of Arts in Environmental Studies faculty have wide-ranging research interests, including environmental policy, environmental technology, environmental land-use planning, risk analysis, citizen participation, environmental health, energy studies, global climate change, water-resources policy and planning, brownfields redevelopment, and lake paleontology. They have published in leading journals in these fields. An MA faculty member is the American editor for the International Journal of Global Environmental Issues.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Research Units

Students have opportunities to work with the faculty and staff in the research, public service, and training centers in the Levin College. The Levin College is home to the Great Lakes Environmental Finance Center (GLEFC), a U.S. EPA-funded center and one of only nine such centers in the United States. The GLEFC offers technical assistance, training, and research resources for state and local governments, the private sector, and nonprofit organizations. GLEFC helps solve financial problems related to environmental facilities and resources. See the Educational Resources section of this Catalog for information on the Levin College facilities.

Computer Facilities

Two general purpose computer labs are located in UR 39 and UR 40. Software available in the labs include applications for word processing, spreadsheet analysis, database, computer aided presentation, Geographic Information Systems, ArcInfo, Internet access, and statistical analysis. The labs provide access to laser printers for high-quality black-and-white output, a color laser printer for GIS maps, and a color scanner for capture of graphics. Each lab is equipped with a permanently mounted LCD projector for teaching computer-based classes. Levin College students are provided with disk space on the networked server for conveniently storing class work and for creating personal web pages. The Interactive Media Lab (IML) is available for production of DVDs, CD-ROMs, video/audio streams, and advanced graphics. Digital video/audio capture equipment is available. The IML is equipped with Apple Macintosh computers and a Quicktime streaming server. Additional computing information may be found at the College Web site.

Financial Aid

The Levin College provides graduate assistantships on a competitive basis to full-time students. Although the deadline for receipt of graduate-assistantship applications is March 1, fullest consideration is given to applicants who have submitted all application materials for the MA in Environmental Studies program by February 1.

The College also offers paid internships and tuition grants to eligible degree-seeking students. Application forms are available from the Levin College Office of Student Services. (See also the section on Expenses and Financial Aid: Graduate Assistantships in the front of this Catalog.)

Career Opportunities

Students in the environmental studies program develop skills that are in high demand. These skills are particularly well suited to bridging the gap between science and policy. Students will become leaders in their communities' efforts to protect and/or restore environmental quality. Environmental studies graduates work in organizations such as environmental protection agencies; nonprofit environmental advocacy organizations; environmental education organizations; municipal governments; regional planning and resource agencies; and state and national parks and recreation areas.

The Levin College-through the Department of Urban Studies, the Office of Student Services, and the faculty-provides a variety of career-planning services to help students and graduates find employment related to their programs of study. Current job postings are maintained in the Office of Student Services and on the College Web site. Cleveland State's Career Services Center also provides graduate students and alumni with career advice and career-development assistance, including resume review. (See the section on Campus Services and Program: Career Services in the front of this Catalog).

Admission Information

Applicants to the Master of Arts in Environmental Studies Program must meet the minimum requirements established by the College of Graduate Studies and the MA program faculty:

1. A minimum undergraduate grade-point average of 3.0.
2. Graduate Record Examination (GRE) scores, with an average Verbal and Quantitative score at the 40th percentile, and an Analytical Writing score of at least 4.0. Students with a graduate degree from an accredited college or university are exempted from this requirement. Other standardized tests may be substituted at the discretion of the Program Director.
3. Two letters of recommendation, using the Recommendation Form for Graduate Admission.
4. Non-native English speakers must demonstrate English-language proficiency as indicated in the front of this bulletin under "Admission Requirements for International Students and Permanent Residents"

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Types of Admission

The academic status of a graduate degree-seeking applicant is determined after a review of admission credentials. Graduate Program Committees, in concurrence with the Office of Graduate Admissions, may recommend admission of applicants as regular or conditional graduate students. Please refer to the Admission to the College of Graduate Studies section of this catalog for information on admission categories.

Degree Requirements

The MA in Environmental Studies program includes a minimum of forty-four credits, including core-competency courses, a nineteen-credit core curriculum within the major, twelve to sixteen elective credits (four courses), and an exit project.

Core Competency Courses

Technology
CVE 450 Environmental Technology (3 credits)
PHY 570 Environmental Physics (4 credits)
Technical Writing
ENG 509 Technical Writing (2 credits)

Major Core Curriculum

ENV/CVE/BIO 595 Environmental Seminar (1 credit)
UST 601 Applied Quantitative Reasoning I (4 credits)
UST/ENV 652 Environmental Policy and Administration (4 credits)
LAW 671 Environmental Law (3 credits)
EVS/GEO 506 Ecosystem Science (3 credits)
UST 603 Public Finance and Economics (4 credits)
Electives (12-16 credit hours; four-class minimum)
Generalist: Choose four courses from concentrations or electives (12-16 credits)
Specializations: Minimum three courses from a concentration.

Policy and Administration

UST 651 Environmental Finance (4 credits) (required for specialization)
PAD 600 Introduction to Public Administration (4 credits)
PAD 604 Organizational Behavior (4 credits)
UST 616 Systems and Processes of Policy Development (4 credits)
UST 603 Public Finance and Economics (4 credits)
LAW 808 Environmental Law Clinic (4 credits) (with instructor permission)

Environmental Planning

UST 553 Environmental Planning I: Urban Sustainability (4 credits)*
UST 653 Environmental Planning II: Regional Landscapes (4 credits)*
UST 642 Introduction to GIS (4 credits)
UST 550 Environment and Human Affairs (4 credits)
LAW 608 Land Use (4 credits) (with instructor permission)
Or UST 609 Planning Law (4 credits)
*One of these courses is required for the specialization.

GIS

UST 642 Introduction to GIS (4 credits)
UST 643 Advanced GIS (4 credits)
UST 644 GIS Capstone (4 credits)

Environmental Nonprofit Management

PAD 550 Fundamentals of Nonprofit Administration and Leadership (4 credits)
UST 510 Proposal Writing and Program Development (4 credits)
PAD 604 Organizational Behavior (4 credits)
PAD 651 Fundraising and External Relations for Nonprofit Organizations (4 credits)
PAD 652 Financial Administration and Control of Nonprofit Organizations (4 credits)

Additional Electives (to be selected with advisement from program director)
UST 606 Technology and Evolution of Human Settlements (4 credits)
EVS 520 Rivers and Watershed of Northeast Ohio (2 credits)
EVS 521 Rivers and Watershed Laboratory (2 credits)
EVS 523 Map Interpretation and the Visualization of Space (3 credits)
EVS 550 Applied Ecology (300-level Bio or permission) (3 credits)
EVS 560 Geomorphology (EVS 523 or permission) (4 credits)

Exit Project

Every student must register for four credits of exit-project course work (UST 698) and successfully complete an applied research report, an original project design, a policy-analysis- and evaluation paper, or a related project. Before registering for exit-project credit, the student and his or her advisor select a proposed exit project. The student must complete a Permission Form and obtain the required signatures prior to registering for the project.

JD/MA in Environmental Studies Program

The combined curriculum leading to the degrees of Juris Doctor and Master of Arts in Environmental Studies is designed to permit the student to complete both degrees over four years instead of the five years that would typically be required to complete the two degrees separately.

Entry into the Dual Degree Program can occur in one of two ways. Applicants who are not currently enrolled in either the JD or the MA in Environmental Studies degree program must apply for admission to both the College of Graduate Studies and the College of Law concurrently and follow the normal procedures of the respective colleges. Application for admission must be specifically for the Dual Degree Program. Students who enroll in this manner spend their first year taking courses exclusively in the JD program and their second year taking courses exclusively in the MA in Environmental Studies program. In the third and fourth years, students take courses in both degree programs. Applicants who are currently enrolled in either the JD or the MA in Environmental Studies degree program must apply for admission to the other degree program prior to the completion of sixty credit hours in the JD program or twenty-four credit hours in the MA in Environmental Studies program. Students who enroll in this manner are advised as to how to schedule the remainder of their courses in the Dual Degree Program. Under no circumstances will a student be allowed to take more than eight years to complete the combined programs.

The Dual Degree Program requires a total of four academic years. The Juris Doctor requirements are fulfilled by the completion of eighty credit hours of work in the College of Law, including all required courses, and the transfer of ten credit hours from courses taken in the Master of Arts in Environmental Studies program. The Master of Arts in Environmental Studies requirements are fulfilled by the completion of thirty-six credit hours of courses in the College of Urban Affairs, including all required courses, and the transfer of the equivalent of eight credit hours from courses taken in the College of Law. In order to ensure that the degree requirements of both programs are fully maintained, while at the same time permitting the saving of a full academic year, students who pursue the Dual Degree Program are not permitted to take courses outside either the College of Law or the Master of Arts in Environmental Studies program for credit toward either degree.

When a student graduates from both degrees together they are allowed to transfer ten credit hours toward their law degree. If they elect to received the law degree first, only eight credits can be dual counted.

Submit College of Graduate Studies application materials to the Graduate Admissions Office. Contact the College of Law regarding law application procedures.

The 5-year BA+MA in Environmental Studies Program

Through the BA+MA in Environmental Studies program, students may complete a BA in Environmental Studies and an MA in Environmental Studies through the Levin College of Urban Affairs in five years, instead of the six academic years normally required of full-time students. High performing undergraduate students may apply to the 5-year program during the third year of undergraduate study and, if accepted, complete MA coursework during the fourth year and a transition term. Students may then complete all remaining MA coursework in two semesters of full-time graduate study.

Admission and Requirements

In addition to meeting the admission requirements for the conventional MA in Environmental Studies program, students applying to the 5-year BA+MA program must have a cumulative GPA of 3.25 and submit two letters of recommendation from Cleveland State University faculty. Upon successful completion of the fourth year and transition term, students are awarded the BA in Environmental Studies. In order to be admitted to the final year of the BA+MA Program, students must complete the BA with a cumulative GPA of 3.0 and receive grades of B or better in designated coursework.

For more information and curriculum plans, please consult the Levin College Office of Student Services, at 216-687-3884.

Master of Arts in

Global Interactions

Department of Political Science

Rhodes Tower 1744
(216) 687-4541
http://www.csuohio.edu/class/politicalscience/Graduate/MAGI.html

Rodger M. Govea, Department Chair
Forrest Qingshan Tan, Graduate Program Director
Jeffrey Lewis
Neda Zawahri
Il Hyn Cho

The Program

The Master of Arts in Global Interactions (MAGI) is a professional program that prepares students for employment in private, nonprofit, and governmental enterprises that have international operations. The program is not recommended for students seeking a Ph.D. or other higher academic degrees. Rather, it focuses on the development of skills needed in the modern, globalized marketplace. The program's approach is based on three principles:

- Interdisciplinary breadth – with coursework from Economics, Communication, Modern Languages, included in core offerings. Additional coursework from History, Law, Accounting, Finance, Management and Labor Relations, and Marketing may be chosen for specializations.
- Balance – blending the advantages of traditional academic coursework and courses focusing on practical, problem-solving skills
- Demand – The curriculum responds to the demands of our key stakeholders, and prepares students for the complexities of the global economy

Types of Applicants

Applicants are welcomed from virtually all academic backgrounds, but typically applicants have a background in either the social sciences or business. The strong emphasis on workplace skills is ideal for students who have just completed a baccalaureate degree but do not have significant work experience. Mid-career professionals will find that the program provides an academic challenge that will enhance and expand their skills beyond the traditional confines of the workplace.

Career Opportunities

The program is anchored by the assumption that the world is increasingly interdependent. As such, the skills offered by the program are relevant to virtually any profession. However, the program is

more specifically oriented toward the following career areas:

- International Non-Governmental Organizations (NGOs)
- International Governmental Organizations (IGOs)
- Government Agencies with an International Focus
- International Businesses

Faculty Research and Publications

The faculty in the Political Science department have a distinguished record of publication. In the fields of international relations and comparative politics, the faculty have publications focusing on Asia, Africa, Europe and Latin America.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Admissions and Financial Assistance

To be admitted as a regular graduate student, the applicant must have a bachelor's degree with at least a 2.80 GPA, (how many letters?)from undergraduate instructors at accredited institutions. Students need to have received an undergraduate degree in Economics, Political Science, International Relations or a related discipline; or fulfill preparatory courses required for graduate courses in Economics and Business.
All students need to have taken macro and micro economics as undergraduates. Financial aid in the form of a Graduate Assistantship is available to a limited number of graduate students.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

In addition to meeting all University requirements, degree candidates must successfully complete at least 37 credits, including five core courses, a concentration of three courses, a team project and an internship. Students must also demonstrate competence in (poor term) cross-cultural communication through the cross-cultural awareness requirement, which may require additional coursework.
The curriculum is designed to give students a solid foundation in the scope and diversity of global interactions, an ability to communicate cross-culturally, a team-building exercise, and experience with a globally-engaged organization.

Core Courses (5 courses, 20 credits)

PSC 501 Applied Theories of International Relations (4 credits)
PSC 502 International Political Economy (4 credits)
PSC 503 Political Risk, Early Warning and Conflict Management (4 credits)
ECN 582 International Economics (4 credits)
COM 595/596 International Negotiation Strategy and Intercultural Communication Practices (4

credits)

Concentration (choose one, 12 credits)

Global Business Interactions:
MBA 602 International Business AND one of the following course pairings:
  Accounting: ACT 501, 560
  Finance: FIN 501, 621
  Management and Labor Relations: MLR 501, 601
  Marketing: MKT 501 and either MKT 601 or 608
  NOTE: These are pre-MBA 'graduate' courses. The content of these courses is at the undergraduate level.

Global Political Interactions:
PSC 511 Non-State Actors in the Global Arena
PSC 512 Global Governance

Plus any one of:
HIS 520, HIS 553, HIS 567, HIS 573, HIS 574, HIS 576
LAW 551, LAW 553, LAW 687, LAW 688

Cross Cultural Awareness Requirement
(variable credit, based on options)

Any organization that operates internationally seeks employees capable of understanding and bridging cultural gaps and differences. The MAGI program consequently requires that each graduating student demonstrate cross-cultural competence in one of two ways:

Cross-Cultural Skills
Cross-Cultural Adaptability Inventory (CCAI) (no credit)
Self-Awareness Workshop (no credit)
MLA 500 Cross-Cultural Proficiency (1 credit) OR Study/Living Abroad (also 1 credit)
[note: study/living abroad consists of a significant academic or living experience outside of the U.S. that fully immerses the individual into a non-US culture. These must be approved by the program director to satisfy this requirement]

Language for Business
Global Business Interactions Concentration and either FRN 203 (4 credits) or SPN 203 (4 credits)

Exit Requirement (2 courses, 5 credits total)

PSC 580 Team project (2 credits)
PSC 585 Internship (3 credits)

Master of Science in

Health Sciences

Department of Health Sciences

Health Sciences 101
(216) 687-3567
http://www.csuohio.edu/sciences/dept/healthsciences/graduate/MSHS/

John Bazyk, Chair
Susan Bazyk, Graduate Program Director

Introduction

The Master of Science in Health Sciences (MSHS) is a post-baccalaureate professional degree designed to prepare practicing healthcare professionals for emerging leadership roles in the rapidly changing healthcare environment and to expand opportunities for professional advancement. The goal of the Master of Science in Health Sciences program is to prepare and educate its graduates to emerge as leaders in delivering patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches, and informatics. The Program objectives for graduates are to:

1. Demonstrate self-directed learning skills in order to continue independent and life-long learning;
2. Demonstrate the ability to assume diverse roles in today's rapidly changing healthcare, social, and community service environments;
3. Identify and analyze cultural influences on practice and emerging healthcare practice issues;
4. Utilize outcome measures and evidence-based research to evaluate the effectiveness of health, social, or community systems; and
5. Utilize information technology to improve health, social, or community systems.

Courses are offered in two formats for the convenience of part-time students: on-campus, during the evening, and online. The Program has a core of five courses. In addition, it requires three courses in an area of emphasis, three electives, and a capstone research project or thesis. Students are encouraged to periodically contact the Director or a Program advisor for advising and to review the student's progress and plans.

Faculty Research

Cleveland State faculty have research specializations in biomechanics, culture and health, meaning of occupation, epidemiology, exercise physiology, feeding interventions, gerontology, mental health, motor control, neuromuscular disorders, orthopedics, pediatrics, the psychology of trauma, outcomes measurement, women's health and therapy-related legal issues. The Motion

Analysis Lab is a significant resource for a variety of research endeavors, including gait analysis, vestibular concerns, and sports medicine. In addition faculty have research collaborations with health organization in Northern Ohio that include the Arthritis Foundation, Benjamin Rose Foundation, Cleveland City Mission, Cleveland Clinic Foundation, , Cleveland Clinic Children's Rehabilitation Hospital, Care Alliance, Free Clinic, NASA, MetroHealth Medical Center, University Hospitals Cleveland.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Financial Assistance

A limited number of graduate assistantships are available to full-time students (minimum of nine credit hours per semester). Assistantships cover resident tuition. Assistants may be involved in departmental projects or work with individual faculty on teaching, research, or work-related assignments. The Director of the MSHS Program will notify all MSHS students as assistantships become available.

Career Information

Graduates of the MSHS Program are well prepared for careers in professional practice, education, applied research, or management in healthcare. Career opportunities are available in a variety of healthcare settings, including hospitals, clinics, schools, eldercare facilities, and others.

Admission Information

An applicant must hold a baccalaureate or advanced degree from an accredited institution and be a healthcare professional. Those interested in the MSHS degree, who are not healthcare professionals, must request permission to apply.

Two application forms must be submitted for admission to the MSHS Program. The first application is made to the College of Graduate Studies and can be submitted online (www.csuohio. edu/gradcollege/admissions/apply.html). Applicants must also submit official transcripts for all colleges and universities attended, official test scores for the Graduate Record Examination (waived if degree from US University and GPA is above 3.0), and two letters of recommendation. All scores on the GRE must be at the 50th percentile or above for admission to the MSHS Program. Nonnative English speakers must demonstrate proof of English-language proficiency. See Admission to the College of Graduate Studies for applicable policies and procedures. Transcripts must be sent directly from colleges and universities previously attended. Test scores must be sent directly from the testing service. Application materials are to be sent to the Office of Graduate Admissions.

A second, more detailed application is made to the MSHS Program and must be submitted in

paper form. It is available at http://www.csuohio.edu/sciences/dept/healthsciences/graduate/MSHS/

Program of Study

All core courses and many other courses are offered in both classroom and online formats. Students may take courses in only one format (e.g., online) or both (e.g., some online courses and some in the classroom). The required curriculum, which follows, is the same for both classroom and online students.

Core Courses (15 credits)

Required of all students:
HSC 501 Issues in Health Sciences (3 credits)
HSC 502 Leadership Roles in Health Sciences (3 credits)
HSC 503 Research and Analysis in Health Sciences (3 credits)
HSC 504 Seminar in Health Sciences Professions (3 credits)
HSC 505 Culture and Health Care (3 Credits)

Area of Emphasis (9 credits)

Select one course from the following list:
HSC 510 Principles of Evidence-Based Practice (3 credits)
HSC 513 Outcomes Assessment (3 credits)
HSC 523 Educational Evaluation in Health Sciences (3 credits)
HSC 533 Program Development and Assessment (3 credits)

Select two additional HSC courses to meet professional interests:
HSC 512 Evolving Technologies in Health Sciences (3 credits)
HSC 514 Occupational Therapy and Physical Therapy in the Schools (3 credits)
HSC 521 Physiology for Clinical Sciences (3 credits)
HSC 521 Current Issues in Clinical Education (3 credits)
HSC 522 Fundamentals of Curriculum in Health Sciences (3 credits)
HSC 524 Functional Anatomy (3 credits)
HSC 525 Clinical Application of Current Theories of Motor Development (3 credits)
HSC 526 Functional Performance of Older Adults (3 credits)
HSC 531 Principles of Management for Health Sciences (3 credits)
HSC 532 Advocacy and Environmental Change (3 credits)
HSC 541 Environmental Health (3 credits)
HSC 543 Legal and Policy Issues in Health Sciences (3 credits)
HSC 544 Social Issues and Health Sciences (3 credits)
HSC 545 Work Physiology (3 credits)
HSC 546 Occupational Biomechanics (3 credits)
HSC 547 Assistive Technology for Computer Access (3 credits)

HSC 548 Human Sexuality and Health Care (3 credits)
HSC 570 Special Topics in Health Sciences (3 credits)
HSC 575 Human Gross Anatomy and Lab (4 credits)
HSC 577 Neuroscience Systems (4 credits)
HSC 581 Pathology (4 credits)
HSC 690 Independent Study (3 credits)

Electives (9 credits)

Students select three additional courses from HSC and/or from other departments. Students are encouraged to discuss their selection with the Director or a Program advisor in order to develop a concentration of courses that meets their professional and educational goals. Up to nine credits of graduate courses from an accredited institution may be transferred as electives, with approval from the Program Director and the College of Graduate Studies. Students may also complete a related graduate certificate to satisfy the elective requirement.

Capstone Experience (3-6 credits)

Every student must complete a significant, original research project by completing one of the following courses:
HSC 691 Thesis or HSC 692 Master's Project

The Thesis is usually completed by students who have plans to pursue doctoral studies. It requires a committee of three faculty—an advisor and two readers. It customarily takes three semesters beyond all course work to complete the Thesis. It is strongly preferred that students participate in some aspect of their advisor's research to complete the Thesis.

The Master's Project is the more common method of completion of the MSHS degree. It requires a committee of two faculty—an advisor and one reader. It usually takes two semesters beyond all course work to complete the Master's Project. It is strongly preferred that students participate in some aspect of their advisor's research to complete the Master's Project.

Note: HSC 504 Seminar in Health Sciences Professions directly prepares students for the Capstone Experience. For that reason, it is recommended that HSC 504 be taken later in the curriculum, just prior to beginning the Thesis or Master's Project.

MSHS with a Concentration in Physician Assistant (PA) Science

The MSHS Program offers a Concentration in Physician Assistant Science for students enrolled in the PA Program at Cuyahoga Community college (Tri-C). Applications for this MSHS PA Concentration are online through Tri-C. Students first apply to Tri-C during the Fall semester and begin classes during the following summer semester. Admission to the Graduate College at CSU happens once PA admissions committee has agreed on candidate selection. Admissions to the MSHS PA track require that students have already earned a bachelor's degree and are eligible for admission to both programs. Students take courses in both programs simultaneously. The program of study in the MSHS track consists of thirty-six credits. The MSHS degree with the Concentration in PA Science, along with the credential earned at Tri-C by completing the PA Program, will meet the requirements to sit for the PA licensing exam in Ohio.

Physician assistants with a bachelor's degree and seeking a master's degree may also apply to this program and earn the MSHS degree with a Concentration in Physician Assistant Science.

Graduate Certificate Programs

Graduate Certificate Programs are offered through the MSHS Program and by other departments at Cleveland State University. Detailed information about these programs can be found elsewhere in this Catalog; please refer to the index. In addition, certificate programs may be added at any time. Check the MSHS Web site for updates (http://www.csuohio.edu/sciences/dept/healthsciences/graduate/MSHS/).

Master of Arts in

History

Department of History

Rhodes Tower 1915
(216) 687-3920
http://www.csuohio.edu/class/history/studentinformation.html

Elizabeth Lehfeldt, Department Chair
Robert Shelton, Graduate Program Director

Areas of Study

Master of Arts in History
Museum Studies Specialization
Art History Specialization

Master of Arts in History

Introduction

The Master of Arts in History program offers advanced training in American, African, Middle Eastern, Asian, European, and Latin American history. The program encourages students to take courses in a range of geographic and temporal areas while allowing them the flexibility to focus on subjects that interest them. It strives to provide students not just historical content but also the ability to recognize and analyze themes and patterns across the historical landscape. The Master of Arts in History program is particularly well suited for pre-doctoral students, for secondary school teachers seeking additional enrichment, and for those interested in pursuing careers in public history. Close student and faculty contact is encouraged through a combination of lecture-discussion courses and research and reading seminars that are designed to broaden and deepen the students' historical knowledge and provide training in history as a scholarly discipline. The department has developed new courses in the fields of East and Southeast Asian History, Ancient and Medieval History, Early Modern European History, American and European Social History, African-American History, African History, Middle Eastern History, Latin American History, and Public History.

Admission Information

In addition to College of Graduate Studies requirements for admission, applicants to the History program must have:

1. An undergraduate major in history with a grade-point average of 3.0 or better, or sufficient undergraduate history courses with grades of B or better to serve as an indicator of probable success in the graduate history program. If possible, the applicant should secure letters of recommendation from professors from whom the applicant has taken advanced undergraduate history courses.
2. Results of the Graduate Record Examination (GRE) are desired from all applicants. GRE test results are required, however, for applicants who do not meet the College of Graduate Studies requirement of at least a 2.75 undergraduate GPA for admission.

Under special circumstances, an applicant may remediate undergraduate deficiencies by enrolling as a non-degree student. Non-degree students must achieve a graduate GPA of 3.0 or better for twelve credit hours in approved courses to qualify for admission.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Financial Assistance

The Department of History offers a number of graduate assistantships and internships to complement full-time study. Assistantships and internships require twenty hours of service per week to the department. Graduate assistant responsibilities include tutoring students, assisting professors in the preparation of lectures and discussions, and working on departmental programs. Additional financial assistance is available through various internship programs.

Career Information

The History MA program is intended to prepare students for entry into doctoral programs in history and art history. Graduates of the program also are prepared for secondary-level teaching in history and social studies, as well as careers in public history (i.e., the practice of history in a non-academic setting).

In addition, the master's program in history develops a variety of skills that are basic to success in many careers in business and other professions. Recent graduates have demonstrated skills in conceptualization, research, analysis, and oral and written communication in careers in banking, the media, insurance, journalism, law, marketing and advertising, publishing, and government service.

Faculty Research and Publications

All members of the graduate faculty participate in the activities of local and national historical associations and are active in research and publication in their fields of specialization. In recent years, faculty members have made important scholarly contributions in the form of books and

articles on diverse topics, such as African American stage performers at the turn of the 20th century, American labor and immigration history, sexuality and gender in China, food and nationalism in Southeast Asia, tenantry and landownership in the American revolution, tourism in New Orleans, the professionalization of firefighting and the rationalization of the insurance industry, Moroccan political and social history, racial discourse and labor activism in the 19th century South, British medieval church history, the emergence of capitalism in the Netherlands, and Early Modern Spain. The MA program is designed to encourage students to interact closely with faculty in their areas of interest. Through research and reading seminars, independent study, and/or the writing of a master's thesis, students are encouraged to develop independent research and writing skills.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Degree Requirements

Students may pursue either of two plans for the Master of Arts degree in History. Plan A requires the writing of a thesis, while Plan B requires additional courses in lieu of a thesis. The prospective student selects one of the programs in consultation with the Graduate Program Director.

For both plans, students are required to complete a total of thirty-two credit hours in approved courses with at least a 3.0 grade-point average. Only one grade of B- may count towards the degree and grades below B- (C or F) will not count towards the degree. Depending on their undergraduate preparation in history, students, with approval, may take up to eight credit hours in courses outside of the History Department. For the policy on transferring credit from another institution, see the section on [Transfer Credit](#) in this Catalog.

Upon admission, each student must consult with the Director of Graduate History Studies in order to establish a general plan of study. HIS 697 Independent Study in History can be taken only with the approval of the Graduate Program Director.

Special Requirements for Plan A

1. A minimum of twenty-four credit hours in 600-level courses, which must include:
    a. HIS 601 Introduction to Graduate Study in History
       and
       HIS 695 Research Seminar in American, European, or Social History.
    b. A minimum of two reading seminars (8 credits).
    c. Thesis (1-8 credits).
2. The remaining eight credit hours may be taken at the 500 level.

Special Requirements for Plan B

1. A minimum of twenty credit hours in 600-level courses, which must include:

    a. HIS 601 Introduction to Graduate Study in History
       and
       HIS 695 Research Seminar in American, European, or Social History.
    b. A minimum of three reading seminars (twelve credits).

2. The remaining twelve credit hours may be taken at the 500 level, including Art History courses.

Museum Studies Specialization

Robert Shelton, Graduate Program Director

The History Department in cooperation with the Art Department and the Levin College of Urban Affairs offers an interdisciplinary program that leads to a Master of Arts degree in History with a specialization in Museum Studies.

The program is broad in scope rather than highly specialized. Depth in a specialized area is achieved through HIS 599 Internship in History, HIS 695 Research Seminar, and the 500-level elective course.

Admissions Information

Admission requirements are the same as those for the MA in History program.

Degree Requirements

Students are required to complete a total of thirty-two (32) credit hours in approved courses with at least a 3.0 grade-point average. Upon admission, each student must consult with the History Graduate Program Director in order to establish a general plan of study.

Requirements

1. 28 credit hours in the following required courses:
   HIS 601 Introduction to Graduate Study in History (4 credits)
   ART 505 Introduction to Museology (4 credits)
   HIS 511 Introduction to Public History (4 credits)
   PAD 651 Fundraising for Non-Profits (4 credits)
   PAD 652 Financial Administration for Non-Profits (4 credits)
   HIS 599 Internship in History (4 credits)
   HIS 695 Research Seminar (4 credits)

2. One additional course (4 credit hours) in consultation with the Graduate Director and the Coordinator of History Internships. Possibilities include but are not limited to:
   HIS 504 US Urban History
   HIS 506 History of Ohio

HIS 510 Indians in American History
HIS 512 17th Century America
HIS 519 US Tourism
HIS 529 Black Resistance in the Age of Jim Crow

Art History Specialization

George Mauersberger, Chair and Graduate Program Director

Introduction

The History Department and the Art Department offer an interdisciplinary program that leads to a Master of Arts degree in History with a specialization in art history. The program provides a comprehensive approach to the integral study of history and art and allows for advanced training that broadens and deepens the student's knowledge about the relationship between art and history.

The program is broad in scope rather than highly specialized. Depth in a specialized area is achieved through independent study, thesis, and related courses in history or approved electives. The program is designed to accommodate both full-time students and those students who are currently working but are free for classes after 4 p.m. Due to the interdisciplinary nature of the program and the number of credits required, it is expected that the student will usually take two years (or longer if part-time) to complete the degree.

Although the Art Department is responsible for admission decisions for the art history specialization, the History and Art departments jointly supervise thesis advising and approve applications for graduation.

For non-degree students, graduate courses in art education and studio art also are available.

Faculty Research and Publications

All members of the graduate faculty participate in the activities of local, national, and international art and historical associations and are active in research and publication. In recent years, faculty members have made important scholarly contributions in the form of books, articles, and catalogs on such diverse topics as African ivories, African perspectives on 15th- and 16thcentury art, Buddhist sculpture, Cleveland architecture and the city's struggle for self-identity, Gothic fan-vaulting, Hindu temple art, Jaina manuscript painting, Hindu and Buddhist iconography, Indian mandalas, Tantric art and erotic rituals, navigation and maritime goddesses and serpent deities of Orissa, Modern Jewish Art, Jewish American Artists, and a historic perspective on Cleveland's landmark Terminal Tower.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Career Information

The Art History program prepares students for entry into doctoral programs in art history, for secondary-level teaching in art history and cultural studies, archival management, historical preservation, art gallery and art museum curatorial employment, art consulting, and slide-library work.

Admission Information

In addition to College of Graduate Studies requirements for admission, applicants who wish to pursue the art history specialization must have:

1. At least a 3.0 grade-point average in history/art history courses.
2. An undergraduate major in history/art history or a sufficient number of undergraduate courses in history/art history to indicate probable success in a graduate program. Under special circumstances, an applicant may make up undergraduate deficiencies by enrolling as a non-degree graduate student. For some students, additional courses or study may be required if not completed as an undergraduate.
3. Completed the equivalent of five undergraduate quarters or four semesters of a foreign language, preferably German or French; however, a language of immediate pertinence to the applicant's chosen field of study will be considered. An examination in reading and translation in the language must be taken during the first twelve hours of graduate study.

Results of the Subject Test of the Graduate Record Examination are desired from all applicants. Results of both the General and Subject test of the GRE are required of applicants who do not meet the minimum grade-point average set for admission to the College of Graduate Studies.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Financial Assistance

A number of graduate assistantships are awarded on a competitive basis to qualified students. Assistantships provide tuition support and a stipend in exchange for ten hours of service per week in the research and instructional programs of the faculty. Interested students should apply to the Graduate Advisor in advance of the academic year.

Research Program

Graduate study enables participation in the research of the graduate faculty, which is sponsored by local, national, and international agencies and is widely published in leading professional journals and books.

Graduate student research is often presented at regional and national conferences.

Graduate students have access to the Ingalls Library of The Cleveland Museum of Art, one of the foremost collections in the nation, and to the considerable collections of the Cleveland Public Library. Excellent interlibrary loan, OCLC facilities, and general computer-research services on campus assure rapid acquisition of additional material. Computer applications to the history of art are encouraged and well supported by the College of Liberal Arts and Social Sciences.

Special exhibits and shows in the Cleveland State University Art Gallery afford graduate students experience in curating and publishing exhibition catalogs.

Additional practical experience and funding is facilitated by internships at the Cleveland Museum of Art, the Western Reserve Historical Society, and local art galleries.

Degree Requirements

Upon admission to the program, the student must immediately contact the Graduate Advisor in the Art Department to develop a general plan of study, which is recorded on a program planning form. This form provides the basis for subsequent consultations.

Students may pursue either of two plans for the art history specialization. Plan A requires the writing of a thesis and is intended primarily for the student who plans to study for a Ph.D. in Art History. Plan B is intended primarily for the student seeking only an MA degree and requires additional course work in lieu of the thesis. Plan B is designed for breadth and flexibility rather than specialized concentration. Prospective students select a program in consultation with the Graduate Advisor. Students in plans A and B must complete their approved courses with at least a 3.0 grade-point average, and all students must earn a minimum of twenty hours of credit at the 600 level.

Plan A (36 hours)

1. Sixteen hours in 500- to 600-level art history courses, including at least one art seminar (ART 695) and a maximum of four hours of independent study (ART 697).
2. Twelve hours in 500- to 600-level history courses, including HIS 601 and one reading seminar.
3. Eight hours of thesis (ART 699).

Students anticipating further study are encouraged to begin acquiring a second foreign language in order to meet the Ph.D. program requirements at other universities.

Plan B (40 hours)

1. Twenty-four hours in 500- to 600level art history, including two art seminars (ART 695) and a maximum of four hours of independent study (ART 697).

2. Sixteen hours in 500- to 600-level history courses, including HIS 601, HIS 695, and one reading seminar.

Exit Requirements

Each candidate, whether pursuing Plan A or B, must prepare a twenty-minute slide presentation as an exit requirement. Candidates also are expected to attend and participate in their colleagues' presentations. These slide presentations should demonstrate an original approach to a well-defined topic developed from one of the student's seminar papers. They afford the candidate the opportunity to refine and distill research, following the guidelines of professional art historical society meetings.

For Plan A candidates, the thesis committee must consist of two faculty advisors from the Art Department, one from the History Department, and one member external to the degree program. The guidelines for the thesis are decided on by agreement between the student and the committee. The committee notifies the Graduate Advisor when the thesis has been completed successfully.

Master of Science in

Industrial Engineering

Department of Industrial and Manufacturing Engineering

Stilwell Hall 212
(216) 687-2044
http://www.csuohio.edu/engineering/ime/graduate/msie.html

Joseph Svestka, Chair
M. Brian Thomas, Graduate Program Director

Introduction

The objectives of the Master of Science in Industrial Engineering program are to enable the student to continue professional development beyond the baccalaureate degree and to prepare the student for higher-level management responsibilities in a changing technological environment. The program also provides a foundation for doctoral studies.

Programs are structured to accommodate students holding undergraduate degrees in industrial engineering, engineering degrees in other fields, or science degrees with appropriate engineering experience. Students holding undergraduate degrees in disciplines other than industrial engineering may be required to take pertinent undergraduate engineering courses, depending on their educational and professional experience.

Courses are scheduled in the late afternoon and evening to permit students to follow a full-time or part-time program of study.

Faculty Research and Laboratories

Students have ample opportunities to pursue research in the areas of facility planning; quality systems; industrial automation; in-process sensing and adaptive control; machining; process simulation and control; engineering design/production interaction; engineering and technology management; work measurement; and human performance with interdepartmental cooperation; as well as materials and manufacturing processes and systems.

The Industrial and Manufacturing Engineering (IME) Department has several state-of-the-art laboratories in the fields of human factors, quality control, quantitative analysis, facility planning, industrial automation, manufacturing processes, and metrology. The IME Electronic Classroom and Laboratory is a state-of-the-art facility for engineering education. Other research facilities include the Driving Simulator Laboratory and the Manufacturing Processes Laboratory. Current

research activities include energy systems and quality processes.

The IME department works closely with local industry, focusing on applied research and development in the areas of machine performance, manufacturing operations, quality engineering, and the transfer of technology to industry. There is a close, collaborative relationship between the department and a large number of local industries.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Financial Assistance

A limited number of graduate assistantships are available to highly qualified students. Some assistantships are funded through sponsored research projects that require the student to complete a thesis. International students interested in assistantships are encouraged to take the Internet-based TOEFL or the Test of Spoken English (TSE).

Career Information

Industrial engineering graduates typically are employed in manufacturing, service, government, and health care industries and agencies. The demand for industrial engineers continues to increase. Some recent graduates have obtained senior-level management positions with a variety of local organizations. Employment prospects for students trained in industrial engineering generally are good. Several national surveys have predicted that industrial engineering will be one of the highest career growth and opportunity areas for the next decade.

Admission Information

Admission to the graduate program in industrial engineering is open to qualified students with a baccalaureate degree in engineering or science. A minimum baccalaureate grade-point average of 2.75 usually is required. Students who hold undergraduate degrees outside of engineering may need to complete undergraduate background courses in the day or evening. A list of background courses required for students without an engineering degree is available from the IME department. All applications are reviewed by the department's Graduate Program Committee.

The GRE General section is required if one or more of the following conditions is true:

1   The undergraduate degree was awarded by a college or university outside of the United States or Canada, or by a Canadian institution not accredited by the Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers.
2   An unaccredited college or university awarded the undergraduate degree.
3   The student's undergraduate cumulative grade-point average is below
4   The year of the baccalaureate degree precedes the date of application to the College of Graduate Studies by more than six years; however, in this case, the examination requirement may

be waived, with program approval, if the applicant's undergraduate grade-point average is 3.0 or above.

If the GRE is required, a composite score of 1300 or greater is required. The composite score is based on the formula of: 200 times the undergraduate grade point average plus the quantitative score on the GRE. A minimum of the 50th percentile on the quantitative section of the GRE, and a minimum of a 2.75 GPA, are required. The student also must demonstrate an acceptable level of verbal comprehension and writing ability.

All non-native English speakers must demonstrate proof of English-language proficiency. Any individual who has earned a bachelor's degree (or higher) from a U.S. institution, in which the primary language of instruction is English, is not required to take an English-language proficiency examination.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

The requirements for the MS in Industrial Engineering degree are as follows:

1   A program of study must be completed in conference with the student's faculty advisor within the first semester of enrollment. Students are expected to follow the plan of study. The student's program of study must be approved by the Graduate Committee of the department.

2   Two options are available—thesis or course work only.

   a.   The thesis option requires a minimum of twenty-seven hours of course work and a minimum of three hours of IME 699 Master's Thesis. Thesis registration may begin after completion of nine credit hours of work in residence. A completed Thesis and Dissertation Proposal Form must be on file with the College of Graduate Studies prior to registering for this course. See the course description for IME 699 for details.
   b.   The course-only option requires a minimum of thirty hours of course work. Students may be required to take certain undergraduate background or prerequisite courses to be prepared for 500- and 600-level courses.

3.   A minimum of twenty-one credits for the thesis option and twenty-four credits for the course work option must be taken at the 500 or 600 level in the Industrial and Manufacturing Engineering Department. A maximum of two technical electives (six hours) may be taken outside of the department with departmental approval.

Required Core Courses

The following classes are required for all MSIE students.

- IME 510 Advanced Engineering Statistics (3 credits)
- IME 520 Applied Engineering Design (3 credits)
- IME 530 Operations Research I (3 credits)
- IME 560 Manufacturing Systems Engineering (3 credits)
- IME 575 Simulation (3 credits)

Areas of Concentration

The MSIE degree has four areas of concentration. A student must select one of these areas as part of his or her plan of study. Each area of concentration has required classes in addition to the MSIE core.

Exit Requirements

Students pursuing the thesis degree option must successfully defend their work in an oral examination in person, before their committee. The examination is open to the public, and a notice must be posted two weeks prior to the examination. All graduating students must complete an exit evaluation form. This form is available from faculty advisors.

Master of

Labor Relations and Human Resources

Department of Management and Labor Relations

Ahuja Hall 433
(216) 687-4754
http://www.csuohio.edu/business/academics/mlr/mlrhr.html

Jeffrey Susbauer, Chair and Graduate Program Director

Introduction

The principal objective of the Master of Labor Relations and Human Resources (MLRHR) degree program is to help graduates begin careers, or advance their careers, in human resources and labor relations. Specific objectives of the program include:

 • Providing education in the fundamental principles of human resources and labor relations.
 • Providing a better understanding of human resource data and its use in such areas as testing, program evaluation, selection, and survey research.
 • Providing an awareness of the political and legal environments in which human resource and labor relations systems function.
 • Providing an interdisciplinary perspective of the field.

The Faculty

The MLR department's full-time faculty members represent a broad range of academic and professional backgrounds. Our faculty's areas of expertise include:

 • Human Resource Management
 • Labor Relations
 • Organizational Behavior
 • Strategic Management
 • Decision Making
 • Interpersonal Relations
 • Leadership
 • Arbitration
 • Bargaining
 • Equal Opportunity
 • International Management

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Application Procedure

1. GMAT or GRE results submitted to the University by ETS, and
2. An official transcript from each college and university attended.

Admission examination registration forms may be obtained from Educational Testing Service, Box 966, Princeton, New Jersey 08540, or from the Testing Center, 2121 Euclid Avenue, Rhodes Tower, Room 1237, Cleveland State University, Cleveland, Ohio 44115-2214.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Admission Information

Students with a wide range of backgrounds are encouraged to enroll in the program. Applicants who may be interested in pursuing this course of study include those who hold undergraduate degrees in:

• Economics
• Political Science
• History
• Communication
• Sociology
• Psychology
• Urban Studies
• Business Administration

In addition to the College of Graduate Studies standards for admission, applicants for the MLRHR program must meet the following requirements:

1. A total of at least 1000 points based on the following formula: 200 times the cumulative undergraduate grade-point average plus the Graduate Management Admission Test (GMAT) score, or the average score of the verbal and quantitative components of the Graduate Record Examination (GRE). All applicants are required to take either the GMAT or GRE and submit results before being considered for admission.

2. Students scoring below the 25th percentile on the quantitative section of the GMAT/ GRE are required to take OMS 500; those scoring below the 20th percentile on the verbal section of the GMAT/ GRE are required to take the following remedial courses in business communication: GAD 502 (16th through 19th percentile); GAD 501 and GAD 502 (below the 16th percentile).

Program Design

The MLRHR program consists of a minimum of thirty-three semester hours beyond the baccalaureate degree. The program is designed to accommodate students who are currently working. While a majority of enrollees are part-time students taking courses in the evening, the program also enrolls many full-time students. Full- time students usually take three semesters to complete the degree.

The program is divided into four components:

1. Prerequisite Courses

Students must demonstrate proficiency in statistics, economics, and organizational behavior. This proficiency must be demonstrated through prior course work with a grade of C or better taken within the past ten years prior to admittance. Students lacking relevant prior course work are required to take one or more of the following courses or their equivalents:

ECN 503 Economic Concepts (3 credits)
MLR 501 Management and Organizational Behavior (3 credits)
OMS 503 Statistical Methods for Business Decisions (3 credits)

A student may be admitted without such course work, but must remove the deficiency within the first two semesters. Students who do not remove the deficiency are not permitted to enroll for further course work.

2. Required Core Courses

(21 credits)

The following are required for all MLRHR students:
MLR 522 Labor Law (3 credits)
MLR 531 Employment Practices Law (3 credits)
MLR 601 Human Resources Management and Labor Relations (3 credits)
MLR 602 Advanced Wage and Employment Theory (3 credits)
MLR 640 Performance Appraisal, Compensation, and Benefits (3 credits)
MLR 641 Employment Planning, Personnel Selection, and Training (3 credits)
MLR 651 Collective Bargaining (3 credits)

3. Elective Courses

(12 credits)

Students select an additional twelve credit hours to complete the requirements for the degree. Elective course selections must be made with the consent of the student's program advisor. Two elective courses must be at the 600 level.

Electives offered within the Department of Management and Labor Relations include the following:

MLR 504 Organizational Theory and Design (3 credits)
MLR 511 Labor History (3 credits)
MLR 521 Comparative Labor Systems (3 credits)
MLR 523 Labor Relations in Public Employment (3 credits)
MLR 555 Labor-Management Cooperative Practices (3 credits)
MLR 577 Managerial Skill Development (3 credits)
MLR 604 Interpersonal Relations and Group Dynamics (3 credits)
MLR 605 Organizational Development (3 credits)
MLR 607 Total Quality Management/Continuous Quality Improvement (4 credits)
MLR 645 Information Systems in Human Resource Management (4 credits)
MLR 686 Current Problems in Management and Labor Relations (3 credits)
MLR 690 Professional Internship (1-3 credits)
MLR 698 Independent Study (1-3 credits)

Electives offered outside of the department include such courses as:

ADM 642 Collective Bargaining and Contract Management (2 credits)
ALD 605 Psychology of the Adult Learner (3 credits)
ALD 645 Organizational Behavior and Change (4 credits)
COM 544 Mediation and CB Problem Solving (4 credits)
LAW 629 Labor Law (3 credits)
LAW 633 Arbitration (3 credits)
LAW 696 Alternative Dispute Resolution (3 credits)
PAD 630 Public Human Resources Management (3 credits)
PSY 518 Personnel Psychology (4 credits)
SOC 588 Sociology of Work and Organization (4 credits)

Other elective courses may be selected with the consent of the student's program advisor.

4.   Practice assessment examination.

All students admitted into the MLRHR program after Summer 2004 are required to purchase and take the online HRCI assessment examination in their last semester of study. Scores from this practice assessment examination will be used as part of an ongoing MLRHR program review. Students documenting current PHR or SPHR certification may have this requirement waived.

Internships

Internships are available to students to provide an opportunity to gain practical experience in human resources or labor relations.

Non-Degree Students

Non-degree students are strictly limited to a maximum of twelve credits taken on a graduate non-degree basis. Non-degree students are only permitted to enroll in the following courses: MLR 501, MLR 577, OMS 500, OMS 503, GAD 501, GAD 502, and ECN 503, with the permission of the Department Chair. Admission requirements for non-degree students are the same as stated above, including GRE/ GMAT requirements. Successful completion of courses within the allowable twelve credit hours does not waive the admission requirement of 1000 points.

Academic Standards

The MLRHR student must maintain an average of "B" or better in all course work attempted. Receipt of a grade of less than "B" in three courses and failure to maintain a "B" average, or the receipt of a grade of "F" in two courses, will result in dismissal from the program.

Master of Arts and Master of Science in

Mathematics

Department of Mathematics

Rhodes Tower 1515
(216) 687-4680
http://www.csuohio.edu/sciences/dept/mathematics/graduate/index.html

Gregory Lupton, Chair
John Oprea, Graduate Program Director

Areas of Study

Master of Arts
Master of Science

Introduction

The Master of Arts program in Mathematics is designed for those teaching in secondary schools or who have completed their baccalaureate degree and are preparing for such teaching. Its goal is to provide secondary teachers with a broad background in modern mathematics in order to enhance their teaching effectiveness.

The Master of Science option is primarily a program in applied mathematics. It provides an alternative to the traditional MS degree in mathematics. The program is designed to serve those interested in the application of mathematics in industry, business, and government. The program stresses the development, analysis, and evaluation of mathematical models of real-world problems and those areas of pure and applied mathematics that are germane to this process.

Faculty Research

Mathematics faculty members are active in many areas of research in pure and applied mathematics, including algebra, algebraic geometry, algebraic topology, applied mathematics (especially numerical analysis, ordinary and partial differential equations, and fluid dynamics), computer science, functional analysis, general topology, harmonic analysis, mathematics education, operator theory, probability theory, and statistics. Some department members are the authors of widely used mathematics textbooks, both graduate and undergraduate.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Financial Assistance

A limited number of graduate assistantships and tuition grants are available to qualified students. Assistantships include a stipend and tuition support. Contact the Department of Mathematics for further information. (See the section on Financial Aid and Expenses: Graduate Assistantships in this Catalog.)

Career Information

The demand for people trained in mathematics will continue to grow because of the central role of mathematics in the physical sciences, in engineering, and in business. Qualified secondary school teachers of mathematics are in demand, as are applied mathematicians to work in industry and government. There are opportunities in statistics, actuarial work, operations research, and computer science fields that all require a solid background in mathematics.

Master of Arts Program

Admission Information

In addition to meeting College of Graduate Studies requirements for admission, applicants should have completed the current mathematics requirements for an Ohio secondary teaching certificate. Applicants who do not meet this requirement may be admitted with the approval of the Graduate Program Committee.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

The degree requirements, in addition to College of Graduate Studies requirements for the master's degree, consist of the completion of 32 credit hours distributed as follows:

Required Core

(16 credits)

MTH 553 Algebra with Applications (4 credits)
MTH 580 Geometry from an Advanced Viewpoint (4 credits)
And two of the following:
MTH 542 Continuous Mathematical Models (4 credits)
MTH 547 Calculus from an Advanced Viewpoint (4 credits)
MTH 564 Statistics and Data Analysis (4 credits)

Electives

(16 credits)

MTH 513 Linear Algebra with Geometry (4 credits)
MTH 518 Technology in Teaching (4 credits)
MTH 532 Probabilistic Models (4 credits)
MTH 539 Discrete Mathematics (4 credits)
MTH 542, MTH 547, or MTH 564 if not used to satisfy core requirements (4 credits each)
MTH 581 Chaos and Fractals (4 credits)
MTH 593 Special Topics in Mathematics (4 credits)
Any other approved mathematics courses at or above the 500-level.

Exit Requirement

During the course of their studies, students are expected to complete a written project under the supervision of a faculty member.

Scheduling of Courses

The Master of Arts program is offered during summer sessions. Students may enter the program any summer term and complete the program in three summers. Alternatively, some approved elective courses may be taken during fall or spring terms.

Master of Science Program

Admission Information

In addition to meeting College of Graduate Studies requirements for admission, applicants are expected to have a baccalaureate degree in mathematics, engineering, or another scientific or technical area. Applicants should have completed a sequence in calculus and analytic geometry, as well as courses in linear algebra and differential equations and at least eight credits in junior- or senior-level mathematics courses. An applicant without this preparation may be admitted on a probationary basis, subject to removing deficiencies during the first year of graduate study.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

In addition to meeting Graduate College requirements for the master's degree, MS degree candidates must earn 32 credit hours distributed as follows:

Required Introductory Course

(4 credits)

  MTH 514 Linear Algebra and Functions of Several Variables

Sequence Courses

(4 credits)

Four courses (including one complete sequence) from the following:
  MTH 525-MTH 626 Mathematical Methods in Engineering and Science
  MTH 537-MTH 638 Operations Research
  MTH 567-MTH 668 Applied Linear Models
  MTH 577-MTH 678 Numerical Methods

Electives

(12 credits)

Approved mathematics courses at or above the 500-level.
Up to eight credits of approved courses at or above the 400-level, offered by other departments.

Exit Requirement

During the course of their studies, students are expected to complete a written project under the supervision of a faculty member.

Scheduling of Courses

Courses in the Master of Science program are offered in the evening during the academic year only. Courses are scheduled as indicated below. Other courses also may be offered. It is highly recommended that students complete MTH 514 in their first year of study.

With department approval, students may apply a maximum of eight 400-level credits taken as a Graduate Student at Cleveland State offered by a department other than Mathematics toward a master's degree in Mathematics.

Master of

Science in Mechanical Engineering

Department of Mechanical Engineering

Stilwell Hall 232
(216) 687-2567
http://www.csuohio.edu/engineering/mce/graduatestudies.html

William Atherton, Interim Chair
Hanz Richter, Graduate Program Director

Introduction

The Mechanical Engineering Department offers a program leading to the Master of Science in Mechanical Engineering. Major areas of specialization within the department are:

- Thermal-Fluid Mechanics and Energy Systems
- Mechanical Systems and Design
- Dynamics and Control
- Mechatronics

Courses are organized in the above four tracks, however students have the flexibility to choose their own courses according to their individual interests and career goals. Numerous and continuous opportunities exist for exposure to engineering problems and developments within the industrial/ research complex of Northeastern Ohio. In addition to substantial interdisciplinary research activities in the College of Engineering, faculty and students participate in research programs sponsored by the U.S. Department of Energy, the NASA Glenn Research Center, and industrial partners like Parker-Hannifin, General Electric and Philips Medical Systems, to name a few. The program is designed to stimulate creativity, to provide a deep understanding of the basic physical phenomena involved in mechanical systems, and to provide an ability to use modern techniques in the analysis, control, and design of mechanisms, machines, mechatronic and robotic systems and fluid/thermal systems.

Students may enter the program immediately after receiving a bachelor's degree or after a period of employment in industry. In either case, students may pursue their studies on a full-time or part-time basis. Classes also are available through distance-learning technology, including interactive, live video, and asynchronous Internet systems. The Department also offers a combined BSc/MSc degree program to be completed in 5 years.

Facilities

The department maintains excellent instructional and research facilities, including one of the state's largest anechoic chambers and the unique Center for Rotating Machinery Dynamics and Control. The department maintains state-of-the-art facilities in energy and power systems, control and mechatronics and machine design, including Stirling engines, a wind tunnel, the machine vision and system monitoring lab, the rapid prototyping lab, and the rotating machinery dynamics and control lab. The Fenn College of Engineering's computer network, workstations, PC laboratory, and associated software such as Matlab, AutoCAD, and SolidWorks, are available for research and academic activity.

Faculty research areas Include

- *Computer Modeling of Manufacturing Processes*
- *Analysis and Modeling of Gear Trains*
- *Turbomachinery Analysis, Design, and Optimization*
- *Rotor-Bearing Dynamics and Diagnostics*
- *Tribology and Control of Rotor-Bearing Systems*
- *Magnetic Bearings*
- *Prediction and Control of Vibrations in Machinery*
- *Intelligent System Monitoring*
- *Machine Vision and 3D Optical Measurements*
- *Gravitational Effects on Two-Phase Flow*
- *Spray Evaporative Cooling*
- *Enhanced Heat Transfer*
- *Non-Newtonian Fluid Mechanics and Heat Transfer*
- *Computational Fluid Dynamics and HeatTransfer*
- *Combustion*
- *Bio-Based Electroactive Transducers*
- *Control Theory*
- *Control for Aerospace Propulsion*
- *Robust Nonlinear Control*
- *Modeling and Control of Mechatronic Systems*

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Financial Assistance

The department offers a limited number of graduate research assistantships. Additional opportunities for assistantships exist through the Ohio Aerospace Institute. Information about assistantships is available from the Department of Mechanical Engineering at (216) 687-2567.

Career Information

Upon successful completion of program requirements, students will have a solid education based on the fundamentals of engineering science. Graduates are well prepared for practical applications of engineering design, analysis, and research, and for employment in industry and research laboratories.

Admission Information

Admission to the graduate program in mechanical engineering is open to qualified students with a baccalaureate degree in mechanical engineering or other fields of engineering. A minimum baccalaureate grade-point average of 3.0 (or 2.75 for students from EAC/ABET accredited programs) normally is required. Students without a degree in mechanical engineering are required to take prescribed undergraduate courses in mechanical engineering to ensure adequate preparation for the graduate program. These courses are available both during the day and evening. Undergraduate courses taken to remediate deficiencies do not count toward graduate degree requirements.

The GRE General examination is required if one or more of the following conditions is true:

 • The undergraduate degree was awarded by a college or university outside of the United States or Canada, or by a Canadian institution not accredited by the Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers.
 • An unaccredited college or university awarded the undergraduate degree.
 • The student's undergraduate cumulative grade-point average is below 2.75.
 • The year of the baccalaureate degree precedes the date of application to the College of Graduate Studies by more than six years; however, in this case, the examination requirement may be waived, by the program, if the applicant's undergraduate grade-point average is 3.0 or above.

 Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Accelerated 4 + 1 Program in Mechanical Engineering

The Department of Mechanical Engineering also offers an Accelerated Program that would enable students to a earn a Bachelor of Mechanical Engineering degree as well as a Master of Science in Mechanical Engineering in 5 years. Applicants must have a cumulative GPA of 3.00 or higher at the time of application. Honors students are strongly encouraged to participate. Students who are interested in this program may submit applications upon completing their first semester of the junior year. Applications must be submitted by the end of the junior year. This application policy also applies to transfer students who have equivalent junior status. Students in

this program must take 500-level courses in year 4, and 500-level or 600-level courses in year 5, as indicated in the BME/MSME Dual-Program Sheet. To remain in the program, students must maintain a 3.00 or higher GPA.

Minimum number of credits required to earn both degrees: 155 (thesis option) and 158 (project option).

For more details, please refer to the department webpage http://www.csuohio.edu/mce/

Degree Requirements

The Department of Mechanical Engineering offers two program options. The thesis option requires a minimum thirty credit hours of course work and master's thesis research. The non-thesis option requires a minimum thirty-three credit hours of course work and master's project. The Department of Mechanical Engineering further restricts the content of each student's master's program to contain:

  1   A minimum of twenty credit hours of course work in the department's 500 or 600-level courses, which includes a minimum of four credit hours of advanced engineering analysis or applied mathematics. (Completion of one course from among MCE 501, MCE 504, MCE 509, or approved substitutes meets this requirement.)
  2   A maximum of nine credit hours of graduate course work transferred from other universities.

The graduate program must include thesis or project work on a topic approved by the student's graduate advisor and thesis committee. The project or thesis work typically should start only after the student completes sixteen credit hours or more of approved course work at the master's level. A thesis proposal approval form must be completed and approved by the Dean of the College of Graduate Studies before registering for MCE 699 (thesis).

At least one semester prior to graduation, an application-for-graduation form must be submitted to the department and the Office of the University Registrar.

Thesis Option

With the thesis option, a student plans and carries out a research project. It is expected that the project will yield a refereed journal article. The requirements are:

  1   A minimum of thirty credit hours with a grade-point average of 3.0 or better. This includes a minimum of twenty-four credit hours of course work and at least six credit hours for the master's thesis.
  2   Selection of a major advisor and an advisory committee and approval of a program of study and the research project by the major advisor and advisory committee.
  3   Completion of all requirements noted above under Degree Requirements.
  4   Continuous thesis enrollment from the time the research plan is approved until completed.

5   Defense of the thesis before the advisory committee.

Non-Thesis Option

The non-thesis option is intended for students who already have had the equivalent of a thesis experience. Equivalence of such an experience must be approved by both the student's advisor and the department chair. Students following this option earn the MS degree by completing the following requirements:

1   A minimum of thirty-three credit hours with a grade-point average of 3.0 or better. The thirty-three hours includes a minimum of twenty-eight credits of course work and at least five credit hours for the master's project.
2   Selection of a major advisor to supervise and approve the student's program of study.
3   Fulfillment of all requirements noted above under Degree Requirements.
4   Approval of the master's project report by the major advisor and two additional faculty members in the department.

Master of

Music

Department of Music

Music and Communication 332
(216) 687-2033
http://www.csuohio.edu/class/music/degreeprograms/graduate.html

Eric Ziolek, Department Chair
Birch Browning, Graduate Program Director

Composition
Music Education
Performance

Introduction

The graduate degree program in music offers specializations in Composition, Music Education, and Performance. Cross-disciplinary study among these specializations is encouraged.

The Department of Music offers outstanding facilities. A state-of-the-art building houses two performance halls, three large rehearsal halls, two chamber music rehearsal rooms, four electronic music/computer laboratories, and dozens of practice and specialized teaching spaces. Cleveland is one of the most outstanding centers for music in the United States, and students have many opportunities to observe and study with some of the finest performers in the world. A number of members or former members of the Cleveland Orchestra teach at the University, and Cleveland State vocal ensembles perform annually with the Orchestra. The Cleveland Contemporary Players, which is devoted to performing contemporary music, is in residence at the Cleveland State Department of Music. Composition students are able to have their works performed by the Cleveland Contemporary Players. Opportunities to perform early music, both vocal and instrumental, are available through Collegium Musicum and through private study. Internships for teaching college-level music are offered for students wishing to pursue an academic career. Workshops in Orff, Kodaly, and other approaches to music education are offered during the academic year and as part of the Summer Arts Institute through the Center for the Study of the Arts and Innovation for music educators who wish to continue their studies. The annual Thyagaraja (Aradhana) Festival at Cleveland State is the largest international festival of Indian music held outside of India.

Through its core and specialized courses, Cleveland State's graduate music program is designed to provide solid musical training and to prepare students for careers in their area of specialization. The program is an excellent foundation for doctoral study. Students have gone on

to careers in composition, arranging, conducting, choral music, electronic music, musicology, criticism, performance, library science, and teaching at the university level and in elementary and secondary schools. Cleveland State students have won awards for international study and have received appointments overseas. The music program attracts international students, as well as students from across the United States.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Financial Assistance

The Music Department offers graduate assistantships, which pay tuition plus a stipend, and graduate tuition grants without stipend. To be eligible, students need a grade-point average of at least 3.0. Applications must be received by March 31 for the following academic year. Application forms are available from the Department of Music. Further details on requirements and service obligations are in the music department's Graduate Student Handbook. Students are encouraged to audition for the Graduate String Quartet and the Graduate Woodwind Quintet.

Admission Information

All College of Graduate Studies admission requirements must be met.

Admission into the Department, at the graduate level, occurs after a conference with the head of the area in which the student expects to specialize. Contact the Department of Music at (216) 687-2033 for an appointment.

The Department has different entry requirements for each area of specialization:

Performance: An audition is required prior to admission for all students who wish to specialize in performance. In the audition, which should last fifteen minutes or longer, the student must demonstrate performance proficiency with some stylistic breadth. An audio tape or videotape may be provided in lieu of a live audition, with prior approval of the Department.

Composition: Applicants must submit a portfolio of representative works for evaluation.

Music Education: Two letters of recommendation from supervisory personnel who can attest to the applicant's teaching ability are required.

All applicants are administered a diagnostic advisory examination in music history. Those who do not pass the examination are required to take MUS 511 and/or MUS 512. The examination must be taken before the student's first registration. Arrangements can be made by contacting the Director of the Graduate Program at (216) 687-3768.

Students who wish to change from non-degree status to degree-seeking status should consult the [Degree Admission](#) section of this Catalog.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

A candidate for the Master of Music degree must fulfill a total of thirty credit hours in approved graduate courses, including:

I. Core Courses
   MUS 514 Introduction to World Musics (3 credits)
   MUS 595 Music History Seminar (3 credits)
   MUS 602 Analytical Techniques (3 credits)

II. Required Courses for Areas of Specialization

A. Composition

   MUS 521 Composition Forum (two semesters, for a total of 2 credits)
   MUS 527 Computer Music and MIDI I (3 credits)
   MUS 528 Computer Music and MIDI II (3 credits)
   MUS 620 Composition (two semesters, for a total of 6 credits)
   MUS 635 Composition Recital (2 credits)
   MUS 689 Composition Thesis (4 credits)
   600-level Electives (3 credits)

B. Music Education (vocal, instrumental, and supervision concentrations available)

   MUS 554 Foundations and Principles of Music Education (3 credits)
   MUS 584 Seminar in Music Education (3 credits)**
   **Three credits of Music Education Workshops may be substituted for the Seminar in Music Education. Within the guidelines of the College of Graduate Studies rules and regulations dealing with transfer credits, workshops offered by institutions other than Cleveland State may apply toward this facet of the degree with approval of the Cleveland State
   Music Education Coordinator.
   MUS 611 Research Techniques in Music Education (4 credits)
   MUS 679 Research Projects in Music Education (3 paper option, 6 credits) or MUS 699 Thesis (6 credits)
   600-level Applied Music (2 credits)
   Electives (3 credits)

C. Performance 600-level Applied Music (2 courses, for a total of 4 credits)

MUA 603 Recital Preparation (2 courses, for a total of 4 credits)
MUA 605 Performance Pedagogy (2 credits)
MUA 606 Repertoire (2 credits)
MUS 632 Solo Recital (2 credits)
Electives (7 credits)

III. Other Courses
MUS 510 The Business of Music (3 credits)
MUS 511 Music History I (3 credits)
MUS 512 Music History II (3 credits)
MUS 515 World Music Studies (3 credits)
MUS 551 Orchestration (3 credits)
MUS 556 Lyric Diction (3 credits)
MUS 575 Workshop (1-4 credits)
MUS 576 Extended Workshop (1-4 credits)
MUS 589 Colloquium (1-4 credits)
MUS 593 Special Topics (1-4 credits)
MUS 615 Teaching College Music (2 credits)
MUS 698 Master's Project (1-6 credits)

IV. Performing Ensembles
All ensembles are 1 credit
MUS 501 University Chorus
MUS 502 Band/ Wind Ensemble
MUS 503 Collegium Musicum
MUS 504 University Orchestra
MUS 505 CSU Chorale
MUS 506 Chamber Ensemble
MUS 507 Jazz Ensemble
MUS 508 Opera Workshop

V. Applied Music
Normally graduate students register for 600-leveled applied music on their primary instrument or voice. Students who wish to take lessons in another applied area should register for 500-level secondary applied lessons.

See MUA listings in the "Courses" section. There is a surcharge fee for all MUA courses.

Electives

Any of the courses listed above under II. (Required Courses for Areas of Specialization), III. (Other Courses), IV. (Performing Ensembles), and V. (Applied Music) may, if appropriate, be taken as electives. Electives from other disciplines may be used to meet degree requirements with approval of the department.

Juries

Students specializing in performance must be evaluated by an advisory jury in the student's major applied area before completion of six hours of applied major study.

Exit Requirements

Please refer to course descriptions for MUS 632, MUS 633, and MUS 635 (recitals) and MUS 679, MUS 689, MUS 698, and MUS 699 (theses and research projects) and the Music Department's Graduate Student Handbook for further guidelines.

Language Requirement

Those who intend to specialize in performance (voice or choral studies) must satisfy the appropriate language requirements.

For performance majors in choral conducting, the language requirement consists of an oral demonstration of proficiency in diction in liturgical Latin, German, French, and Italian.

For voice students, the language requirement consists of an oral demonstration, through the recital requirement, of proficiency in diction in Italian, French, and German.

Exit Project

A student's graduate program culminates in a suitable exit project (e.g., a thesis or a recital) arranged through a principal advisor and reviewed by a committee of three faculty members. A student in music education may complete three suitable papers in lieu of a thesis.

Comprehensive Examination

A comprehensive examination is required for all candidates. The examination serves as an opportunity for both the candidate and the Department to assess the student's ability to synthesize the content of the degree, both in breadth and in the area of specialization. Students are directed to the information on the Comprehensive Examination under their track requirement in the Department of Music's Graduate Student Handbook.

Graduate Handbook

The Department of Music's Graduate Student Handbook is the definitive source for current curriculum requirements and course listings. The handbook is available in hard copy and online at music.csuohio.edu/.

Course availability

Please refer to the Department's Graduate Student Handbook for the availability of courses. Not all courses are offered every semester.

Master of

Nonprofit Administration and Leadership

Maxine Goodman Levin College of Urban Affairs

Urban Affairs 231
(216) 687-2136
http://urban.csuohio.edu/academics/graduate/mnal/

Jennifer Alexander, Graduate Program Director

Introduction

Nonprofit organizations are distinct from business and government in that they blend private structures with public purposes. Effective managers need an understanding of the structure and processes of nonprofits and how they interact with public and private institutions.

The Master of Nonprofit Administration and Leadership (MNAL) is a two-year degree designed to prepare students with knowledge of core management functions and competencies such as fundraising, financial management, human resource management, philanthropy, proposal writing, program development, program evaluation and applied management.

Nonprofit management, administration, and leadership is a rapidly growing career field in high demand. This degree program draws on the strengths of leading scholars and practitioners with expertise in human resources, volunteerism, philanthropy and the political character of nonprofits in civil society.

The MNAL is an interdisciplinary collaboration of the Levin College of Urban Affairs, the College of Business and the School of Social Work as well as other programs at Cleveland State University. This degree provides students with the tools to build management skills and knowledge of nonprofits in order to improve their employment opportunities, advance in their organization, or to make a career change.

For updated program information, visit the MNAL homepage at: http://urban.csuohio.edu/academics/graduate/mnal/

Research Units

Students have the opportunity to work with the faculty and staff in the research, public-service,

and training centers of the Levin College. See the Educational Resources section of this Catalog for information on the Levin College facilities.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

College Computing and Technology

Two general purpose computer labs are located in UR 39 and UR 40. Software available in the labs include applications for word processing, spreadsheet analysis, database, computer aided presentation, Geographic Information Systems, ArcInfo, Internet access, and statistical analysis. The labs provide access to laser printers for high-quality black-and-white output, a color laser printer for GIS maps, and a color scanner for capture of graphics. Each lab is equipped with a permanently mounted LCD projector for teaching computer-based classes. Levin College students are provided with disk space on the networked server for conveniently storing class work and for creating personal web pages. The Interactive Media Lab (IML) is available for production of DVDs, CD-ROMs, video/audio streams, and advanced graphics. Digital video/audio capture equipment is available. The IML is equipped with Apple Macintosh computers and a Quicktime streaming server. Additional computing information may be found at the College Web site at urban.csuohio.edu.

Career Information

The Levin College—through the Office of Student Services and the faculty—provides a variety of services related to career planning to help students and graduates find employment related to their program of study. Current job postings are maintained in the Office of Student Services and on the College Web site. Cleveland State's Career Services Center also provides graduate students and alumni with career advice and career-development assistance, including resume review. See the section on Campus Services and Programs: Career Services in the front of this Catalog.

Financial Assistance

The Levin College provides graduate assistantships on a competitive basis to full-time students. Although the deadline for receipt of graduate-assistantship applications is March 1, fullest consideration is given to those who have submitted all application materials for the MNAL program by February 1.

The College also offers paid internships and tuition grants to eligible degree-seeking students. Application forms are available from the Levin College Office of Student Services. See also the section on Expenses and Financial Aid: Graduate Assistantships in the front of this Catalog.

Admission Information

Applicants to the Master of Nonprofit Administration and Leadership Program must meet the minimum requirements established by the College of Graduate Studies and the MPA program faculty:

1. A minimum undergraduate grade-point average of 3.0.
2. Graduate Record Examination (GRE) scores, with an average GRE Verbal and Quantitative score at the 40th percentile, and an Analytical Writing score of at least 4.0.
3. Students with a graduate degree from an accredited college or university are exempted from this requirement. Other standardized tests may be substituted at the discretion of the Program Director.
4. Two letters of recommendation, using the Recommendation Form for Graduate Admission (available online at http://www.csuohio.edu/gradcollege/admissions/pdf/recommend.pdf)
5. Non-native English speakers who do not have an earned bachelor's degree or higher from an accredited U.S. institution must demonstrate proof of English-language proficiency as indicated in under "Admission Requirements for International Students and Permanent Residents" in this catalog.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Types of Admission

The academic status of a graduate degree-seeking applicant is determined after a review of admission credentials. Graduate Program Committees, in concurrence with the Office of Graduate Admissions, may recommend admission of applicants as regular or conditional graduate students. Please refer to the Admission to the College of Graduate Studies section of this catalog for information on admission categories.

Program Requirements

The curriculum for the MNAL program consists of thirty-nine to fifty-one credit hours, depending on the number of prerequisites required. The program is divided into prerequisites, core courses, electives, and a Capstone.

Prerequisite Courses

Students must satisfy two prerequisite requirements, either through prior coursework or completion of 2 courses:

NAL 601: Applied Quantitative Reasoning - Statistics (or equivalent)**
NAL 603: Public Finance and Economics – Microeconomic Theory (or equivalent)
**Students whose GRE Quantitative score is lower than the 60th percentile must take an assessment test prior to enrolling in NAL 601. If necessary, NAL 501 must be completed prior to NAL 601.

Core Courses

The core of the MNAL curriculum (26-27 credit hours) is required of all students and consists of the following:

NAL 510 Proposal Writing and Program Development
NAL 550 Fundamentals of Nonprofit Administration and Leadership
NAL 602 Applied Quantitative Reasoning II or SWK 675 Program Planning & Evaluation
NAL 604 Organizational Behavior
NAL 630 Human Resource Management
NAL 651 Fundraising and External Relations for Nonprofit Organizations
NAL 652 Financial Administration of Nonprofit Organizations

Elective Credit

Students have 3 courses (9-12 credit hours) available for electives and should consult with the Graduate Advisor to choose electives and plan their schedules. Electives are designed to enhance current skills or fill gaps in substantive areas. Students are encouraged to take advantage of special topics courses taught by Levin College faculty, and complete an internship if they are not an in service professional. Paid and unpaid internships are arranged through the Levin College Office of Student Services.

Capstone Requirement

All students are required to complete NAL 656: Capstone in Nonprofit Management and Leadership prior to graduation. This course should be taken in the final semester of the program. Students integrate learning from the MNAL core curriculum with professional practices encountered in nonprofit organizations.

Transfer Credit

Upon satisfactory completion of 12 or more credit hours of graduate coursework at Cleveland State University, degree-seeking students may transfer up to 3 courses from an accredited college or university. Transfer credit is subject to Program Director approval, and must meet all University requirements for transfer credit (please refer to Academic Regulations).

The 5-year BA+MNAL Program

Through the BA+MNAL program, students may complete a BA in Nonprofit Administration and a Master of Nonprofit Administration and Leadership through the Levin College of Urban Affairs in five years, instead of the six academic years normally required of full-time students. High performing undergraduate students may apply to the 5-year program during the third year of undergraduate study and, if accepted, complete MNAL coursework during the fourth year and a transition term. Students may then complete all remaining MNAL coursework in two semesters of full-time graduate study.

Admission and Requirements

In addition to meeting the admission requirements for the conventional MNAL program, students applying to the 5-year BA+MNAL program must have a cumulative GPA of 3.25 and submit two letters of recommendation from Cleveland State University faculty. Upon successful completion of the fourth year and transition term, students are awarded the BA in Nonprofit Administration. In order to be admitted to the final year of the BA+MNAL Program, students must complete the BA with a cumulative GPA of 3.0 and receive grades of B or better in designated coursework.

For more information and curriculum plans, please consult the Levin College Office of Student Services, at 216-687-3884.

Master of Science in

Nursing

School of Nursing

Rhodes Tower 915
(216) 687-3598
http://www.csuohio.edu/cehs/departments/nursing/grad/

Vicki Johnson, Interim Assoc. Director, School of Nursing

Programs of Study

MSN Degree
  Population Health: Specialized Populations
  Population Health: Forensic
  Population Health: Clinical Nurse Leader
  Population Health: Nursing Education
  Population Health: Nursing Executive
MSN/MBA Degree

Introduction

The MSN program is based on the principles of population health and is designed to prepare graduates with advanced knowledge, competencies, and skills in the nursing care of populations (aggregates). The graduate will have in-depth skills in population assessment, demography, epidemiological assessment and data analysis, evaluation of research, survey research, data projections, cost-benefit analysis, and the ability to apply nursing theory, population theory, ethics, cultural awareness, and political strategies to design, implement, and evaluate population health programs. Students may select from five tracks available, according to their interests and professional goals. In keeping with the rules and regulations of the Ohio Nurse Practice Act, the program does not prepare nurse practitioners or clinical nurse specialists; graduates are not eligible to apply for a certificate of authority in the State of Ohio.

Accreditation

The graduate program in Nursing is accredited by the Commission on Collegiate Nursing Education (CCNE).

Faculty Research

Program faculty members have research specializations in epidemiology, population health issues, culture and health, gerontology, mental health, nursing theory, nursing diagnosis, and education. In addition, the Center for Nursing Research provides resources to faculty and students, including a forum for interdisciplinary research, assistance with proposal development, and identification of funding sources. The departmental partnership with the Visiting Nurse Association of Cleveland also provides opportunities for collaboration with practitioners in community settings.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Financial Assistance

Graduate assistantships (registration for a minimum of nine credit hours per semester) are available on a competitive basis to full-time students who apply and are eligible. Assistantships cover tuition and provide stipend support. Assistants may be involved in three types of graduate assistantships: teaching, research, and administrative. Each type of assistantship is designed to meet the needs of the University and to assist in the professional development of students.

Non-Degree Status

A total of nine credits of graduate nursing courses may be taken as a non-degree graduate student, with permission of the faculty. No nursing course may be taken beyond this limit. Students who wish to progress in nursing course work must complete the application process for admission to the College of Graduate Studies and to the MSN program.

Admission Information

Applicants to the Master of Science in Nursing program must meet the minimum requirements established by the College of Graduate Studies and the MSN program faculty. Applicants are advised to begin the admissions process by scheduling an advising appointment with the Department's Recruiter/Advisor at (216) 687-3810. The general requirements for admission are:

1   A baccalaureate degree in nursing.
2   A valid, active license as a Registered Nurse in Ohio.
3   An undergraduate grade-point average of 3.0 or above, documented through submission of academic transcripts from all schools attended.*
4   Completion of a graduate or undergraduate level statistics course.
5   Submission of two letters of recommendation, preferably from individuals who can address the applicant's ability to be successful in graduate study.
6   Identification of a population on which the student will focus during his or her program of study.
7   Submission of a three-to-five page typed essay explaining why the applicant wants to earn an MSN; how such a graduate degree fulfills the applicant's personal and professional goals; and the

knowledge, skills, attitudes, and competencies that the applicant hopes to develop during the educational process.

  8   Applicant to the MSN/MBA program must meet the admission requirements of both the MSN and the MBA programs; GMAT scores are an additional requirement.

*An applicant who does not meet the minimum 3.0 GPA requirement may still be considered for admission as a non-degree graduate student. See the requirements set forth by the College of Graduate Studies which appear in this Catalog.

Applicants must submit the Cleveland State University application for Graduate Admission with a check or money order for the $55 admission application fee. All application materials should be submitted to the Graduate Admissions Office. The admissions office will forward materials to the MSN Program Director.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Applications for fall semester are reviewed by the School of Nursing Graduate Committee beginning March 1. Applications received after that date are considered for fall semester on a space-available basis.

Students may pursue the program on a full- or part-time basis. The University mandates a six-year time limit to complete master's degree requirements.

Population Health: Specialized Population Track

38 credit hours leading to the Master of Science in Nursing Degree.

The specialized population track allows students to select a population of interest with approval of the faculty. Students in this track follow the program described under the MSN degree. The track enables nurses to practice with populations across care settings.

Career Information

The focus in population health prepares graduates to practice in the evolving health care delivery system. Currently, managed care puts all decisions in the context of population-based data. Nursing activities—designed and implemented according to care maps and critical pathways—are grounded in aggregate data analysis. Graduates are prepared to function collaboratively in acute care settings or community-based settings, to manage health care of population groups, and to work with populations to plan programs to address health concerns. The program enables graduates to practice with populations across care settings, to assume leadership roles in the health care delivery system, and to pursue doctoral education.

Exit Requirements

There is no thesis requirement for the MSN program. Graduation is based on the successful completion of the required courses and clinical experiences. NUR 606 Practicum in Population Health Care is the capstone course for the program. Students are expected to plan and implement a clinical project to address the needs of their population of focus. Each student is expected to make an oral presentation of his or her project and develop a manuscript for submission to a refereed journal.

Students may, however, elect to substitute a thesis for the practicum course as part of their program of study. The thesis option requires the student to plan and carry out a research project, or develop a scholarly essay. Any student who selects this option will develop and submit a paper for publication to a refereed journal and publicly present and defend the thesis.

A student who chooses to complete a thesis should select a thesis advisor early in the program, preferably by the completion of Phase I courses (500level courses). The advisor helps the student establish an Advisory Committee of faculty from the student's area of interest and an external member from a cognate area. After the committee has been established, the student must prepare a research proposal that must be approved by the Advisory Committee. The committee members also monitor the thesis project.

Students should enroll in NUR 699 each semester in which they are involved with their thesis. See the Academic Regulations section of this Catalog for additional information on Thesis requirements.

Degree Requirements

A minimum of 38 credit hours of study is required, including courses in advanced nursing knowledge, population health, a capstone project, and a cognate, or area of interest.

Advanced Nursing Knowledge Courses

(17 credits)
  NUR 500 Professional Role Development for Population Health Nursing I (1 credit)
  NUR 501 Introduction to Population Health Nursing (3 credits)
  NUR 502 Theory Development in Nursing (3 credits)
  NUR 503 Nursing Research Methods I (3 credits)
  NUR 601 Nursing Research Methods II (3 credits)
  NUR 602 Health Care Policy (2 credits)
  NUR 603 Health Care Financing for Nursing Practices (2 credits)

Population Health

(16 credits)
  NUR 505 Introduction to Epidemiology and Demography: A Nursing Perspective (3 credits)
  NUR 604 Nursing of Populations I (4 credits)
  NUR 605 Nursing of Populations II (4 credits)
  NUR 606 Practicum in Population Health Care (4 credits)
  NUR 607 Professional Role Development for Population Health Nursing II (1 credit)
  NUR 699 Thesis (optional; 1-3 credits)

Cognate or Area of Concentration

(elective: minimum of 5 credits)

Annual Documentation

Once accepted into the program, each student is required to present, at the time of entrance and annually thereafter, documentation of licensure as a registered nurse, professional liability insurance, CPR certification, and current immunizations. This information is required by clinical sites, as well as accrediting agencies. Students are responsible for their own transportation to clinical sites.

Clinical Placement

Students admitted to Phase II of the MSN Program take three courses— NUR 604, NUR 605,

and NUR 606— each of which includes a lecture and clinical component. In the clinical component, students develop competencies enacting the roles of the population health nurse expert with their population of focus in several different care environments. During these learning experiences, students interact with members of their population, health care professionals, interest groups, and others who are involved with their population. These opportunities enable the student to use the Precede-Proceed Model, nursing theory, and other concepts, theories, and frameworks to promote the health of aggregates. Students are encouraged to identify their population of interest soon after they enter the program to facilitate identification of clinical sites for optimal learning.

Population Health: Forensic Track

39 credit hours leading to the Master of Science in Nursing Degree.

The forensic track allows students to choose victims or perpetrators of crime or traumatic events as their population of interest. Students will apply the principles of population health to nursing strategies required for the scientific investigation, treatment, and health care of victims/perpetrators due to violence, criminal activity, or traumatic events across care settings. Students will acquire the in-depth knowledge and skills required to interface the law, forensic science, law enforcement, mental health and health care with nursing.

Career Information

The track in forensic nursing prepares the nurse to function in a variety of roles in the evolving health care delivery system. These include, but are not limited to:

- Sexual Assault Nurse Examiner— Nurse expert who cares for patients who have been sexually assaulted. These nurses are employed by a variety of institutions, including hospitals, crisis centers, and government agencies.
- Forensic Nurse—Nurse expert who cares for all types of victims of violence. This nurse conducts forensic evaluations for any patient who presents medico-legal needs. Any living victim and/or suspect may benefit from the objective forensic evaluation that is conducted. Forensic nurses are often employed by hospital emergency rooms, crisis centers, trauma centers, correctional facilities, medical examiner's offices, and government agencies.
- Legal Nurse Consultant—Nurse expert who works with attorneys. A variety of cases are handled, from malpractice to personal injury. Policies and procedures are studied, and documentation of nursing actions is reviewed. This nurse also assists attorneys with preparing for trial proceedings and may testify in some instances.
- Forensic Psychiatric Nurse, Correctional Nurse, and Institutional Nurse—Nurse expert who works with the accused in institutions and facilities. Forensic needs are identified and treatments are made available.
- Death Investigation Nurse—Forensic nurse experts may assist coroners and death investigators. The holistic nursing approach is integral to care of the deceased victim's family, community, and the investigation.

Degree Requirements

The 39 credit-hour curriculum is structured so that the student will take all of the core courses in the Population Health major. This allows students to gain a strong foundation in population health, as well as theory and research. This also affords an opportunity for student interaction with persons in other areas of interest related to population health and nursing. In addition, the student is required to take courses related to the specific population of victims/perpetrators of crime, violence, or traumatic events on which he or she has chosen to focus.

Advanced Nursing Knowledge Courses

(12 credits)

NUR 500 Professional Role Development for Population Health Nursing (1 credit)
NUR 502 Theory Development in Nursing (3 credits)
NUR 503 Nursing Research Methods I (3 credits)
NUR 601 Nursing Research Methods II (3 credits)
NUR 602 Health Care Policy (2 credits)

Population Health Courses

(6 credits)

NUR 501 Introduction to Population Health Nursing (3 credits)
NUR 607 Professional Role Development for Population Health Nursing (1 credit)
Ethics Elective (2 credits)

Area of Concentration— Forensics

(21 credits)

NUR 511 Introduction to Forensic Nursing (2 credits)
NUR 512 Strategies for Population Health Assessment in Forensic Nursing (3 credits)
NUR 606 Practicum in Population Health Care (4 credits)
NUR 614 Nursing of Populations I (Forensics) (4 credits)
NUR 615 Nursing of Populations II (Forensics) (4 credits)
NUR 617 The Legal System (4 credits)

Clinical Placement

Students admitted to Phase II in the graduate program will take NUR 614 and NUR 615, each of which includes a lecture and clinical component. During these learning experiences, students interact with members of their population, health care professionals, interested groups, and others involved in their population. Students in the forensic track interact with law enforcement officials, attorneys, medical examiners, crisis specialists, correctional facility officials, and other nursing professionals involved in the promotion of health/ nursing care of victims/perpetrators of crime, violence, or traumatic events.

Population Health: Clinical Nurse Leader Track

38 credit hours leading to the Master of Science in Nursing degree.

The Clinical Nurse Leader (CNL) track is designed to meet the Ten Assumptions listed below developed by the American Association of Colleges of Nursing (AACN, 2004). This track prepares nurses to be leaders in the health care delivery system across all settings in which health care is delivered. Courses prepare students to design, implement, and evaluate client care by coordinating, delegating, and supervising direct care provided by the health care team. Ten Assumptions for Preparing Clinical Nurse Leaders (AACN, 2004)

- Practice is at the Microsystems level.
- Client care outcomes are the measure of quality practice.
- Practice guidelines are based on evidence.
- Client-centered practice is intra- and inter-disciplinary.
- Information will maximize self-care and client decision-making.
- Nursing assessment is the basis for theory and knowledge development.
- Good fiscal stewardship is a condition of quality care.
- Social justice is an essential nursing value.
- Communication technology will facilitate the continuity and comprehensiveness of care.
- The CNL must assume guardianship for the nursing profession.

*Note: The CNL role is not one of administration, but rather a provider and manager of care to individuals or cohorts within a unit or health care setting.

Program of Study

Students will follow the same course of study as those in the MSN: Specialized Populations Track with the added expectation that elective hours be used to complete a course in pharmacology and ETE 501 (Technology Strand). Students will focus on the 10 assumptions of the CNL role in courses that include a clinical component (NUR 604, 605, 606), and they will be placed with preceptors from practice partners involved in the development of the CNL role.

Population Health: Nursing Education Track

39 credit hours leading to the Master of Science in Nursing Degree

Introduction

The nursing education track provides nurses in the MSN program with the opportunity to acquire the skills needed for the teaching and clinical supervision of nursing students. Graduates of this program are prepared to teach and clinically supervise nursing students in the care of specifically identified populations or cognate area. For example graduate students may study the health care needs of medical surgical clients as their cognate area and then apply the principles learned in the education track to the instruction of student nurses delivering care to this group of clients. Graduate students will take the core courses in the master's program as well as specialized courses focusing on nursing education: curriculum design and development, instructional design, faculty and student roles, and the evaluation and supervision of nursing student nurses.

Financial Assistance

See Master of Science in Nursing – Financial Assistance

Career Information

The program is designed to prepare graduates for clinical faculty positions in schools of nursing or staff development instructors in health care or related facilities.

Admission Information

See Master of Science in Nursing – Admission Requirements

Degree Requirements

The 39 hour curriculum is structured so that the graduate student will take all of the core courses in the Master of Science in Nursing major. In addition, the graduate student will be required to take courses related specifically to curriculum design and development, instruction, and the evaluation and supervision of nursing students.

Advanced Nursing Knowledge Courses (12 credits)

NUR 500 Professional Role Development (1 credit)
NUR 502 Theory Development in Nursing (3 credits)

NUR 503 Nursing Research I (3 credits)
NUR 601 Nursing Research II (3 credits)
NUR 602 Health Care Policy (2 credits)

Population Health Courses (13 credits)

NUR 501 Introduction to Population Health (3 credits)
NUR 505 Epidemiology (2 credits)
NUR 604 Nursing of Populations I (4 credits)
NUR 605 Nursing of Populations II (4 credits)

Area of Concentration – Education (14 credit hours)

NUR 520 Curriculum Development in Nursing (3 credits)
NUR 626 Practicum in Nursing Education (4 credits)
NUR 627 Issues and Trends in Nursing Education (3 credits)
ETE 565 Technology in the Classroom (4 credits)

Clinical Placement

Students admitted to Phase II of the graduate program will take NUR 604, NUR 605, and NUR 626, each of which includes a lecture and clinical component. During these learning experiences students will interact with their population in their cognate area, and develop skills and competencies in the application of teaching-learning strategies and the clinical supervision of nursing students.

Population Health: Nursing Executive Track

38 credit hours leading to the Master of Science in Nursing Degree

Introduction

The executive track in the MSN program is designed for individuals who have a minimum of five years of advanced professional experience and a BSN with a master's degree in a discipline other than nursing. The student would be able to apply up to 10 credits from a previous master's degree, as per University guidelines, provided the credit hours are applicable to the MSN curriculum. Course sequencing would allow the student to earn the degree in one calendar year

Financial Assistance

See Master of Science in Nursing – Financial Assistance

Admission Information

See Master of Science in Nursing – Admission Requirements

Degree Requirements

The 38 hour curriculum is structured so that the graduate student will take all of the core courses in the Master of Science in Nursing major. In addition the student will develop an individual program of study with the program director based on previous experience and educational preparation. Students may be able to demonstrate achievement of program and course objectives, in part, through portfolio submission. Portfolio submission requires course enrollment but may allow students to meet course objectives based on individual professional accomplishments and expertise. All students in the executive track are expected to be full time students and graduate in one calendar year.

Advanced Nursing Knowledge Courses

(9 credits)
  NUR 502 Theory Development in Nursing (3 credits)
  NUR 503 Nursing Research I (3 credits)
  NUR 601 Nursing Research II (3 credits)

Population Health Courses

(9 credits)

NUR 501 Introduction to Population Health (3 credits)
NUR 505 Epidemiology (2 credits)
NUR 606 Practicum (4 credits)

Area of Concentration – Individual Program of Study

(20 credits)

Examples of Individual Programs of Study:

Student with BSN, MBA
  Application of MBA credit to MSN
  NUR 503 Nursing Research (3 credits)
  NUR 603 Finance (2 credits)
  Elective credit (5 credits)
  Total credit hours: 10

Student with BSN, MPH
  Application of MPH credit to MSN
  NUR 503 Nursing Research (3 credits)
  NUR 602 Health Care Policy (2 credits)
  Elective credit (2 credits)
  NUR 505 Epidemiology (3 credits)
  Total credit hours: 10

The MSN/MBA Program

The program leading to a joint Master of Science in Nursing and Master of Business Administration degree is designed for students with an undergraduate degree (BSN) in nursing and is offered jointly by the School of Nursing and the Nance College of Business Administration. The School of Nursing administers the program.

The purpose of the program is to prepare nurses for careers in management and leadership positions. This unique program offers students advanced knowledge, competencies, and skills in nursing of populations (aggregates) and a foundation for their growth into competent business managers. The graduate will have in-depth skills in demography, epidemiological assessment, data analysis, evaluation research, survey research, data projections, and cost-benefit analysis, and the ability to apply nursing theory, business theory, ethics, cultural awareness, and political strategies to design, implement, manage, and evaluate health programs, departments, and facilities.

Students in the MSN/MBA program develop competencies in administration and management of different environments of health care.

In keeping with the rules and regulations of the Ohio Nurse Practice Act, the program does not prepare nurse practitioners or clinical nurse specialists; graduates are not eligible to apply for a certificate of authority in the State of Ohio.

For additional information, visit the Web sites at:
http://www.csuohio.edu/cehs/departments/nursing/msn.html or
http://www.csuohio.edu/cehs/departments/nursing/msnmba.html

Accreditation

AACBS International, the Association to Advance Collegiate Schools of Business, accredits the MBA program of the Nance College of Business Administration. The graduate program in nursing is accredited by CCNE, the Commission on Collegiate Nursing Education.

Admission Information

Applicants to the MSN/MBA program must meet the admission requirements for both the College of Business Administration and the School of Nursing.

College of Business Administration Requirements:

   1.   A total of at least 950 points based on the following formula: 200 times the overall undergraduate grade-point average plus the Graduate Management Admission Test (GMAT)

score; or at least 1,000 points based on the following formula: 200 times the upper division grade-point average plus the GMAT score. Students scoring below the required score on the GMAT may be required to take prerequisite courses prior to admission into the program. Refer to the Admission Information section of the Master of Business Administration program for details.

2. An official transcript from each college and university previously attended.

School of Nursing Requirements:

1. A baccalaureate degree in nursing.
2. An undergraduate grade-point average of 3.0 or above.
3. A statistics course (may be at the undergraduate level).
4. Two letters of recommendation.
5. A valid, active license as an RN in Ohio.
6. An official transcript from each college and university previously attended.
7. Submit the Application for Graduate Admissions with the $55 admission application fee.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Annual Documentation

Once accepted into the program, each student is required to present annual documentation of licensure as a registered nurse, professional liability insurance, CPR certification, and current immunizations.

Program of Study

Students must meet all course and exit requirements for the Master of Science in Nursing and the Master of Business Administration. Refer to the Degree Requirements for the Master of Science in Nursing and the Master of Business Administration for details. Students can pursue the program on a full-time or part-time basis.

The MSN/MBA course sequence for the full-time program is as follows:

Semester One

ACT 501 Financial Accounting (3 credits)
ECN 503 Economic Concepts (3 credits)
MLR 501 Management and Organizational Behavior (3 credits)
NUR 500 Professional Role Development for Population Health Nursing I (1 credit)
NUR 503 Nursing Research Methods I (3 credits)

Semester Two

HCA 640 Health Care Law (3 credits)
MKT 501 Marketing Theory and Practice (3 credits)
NUR 502 Theory Development in Nursing (3 credits)
NUR 602 Health Care Policy (3 credits)

Semester Three

FIN 501 Financial Management (3 credits)
GAD 515 Communication for Managers (3 credits)
NUR 601 Nursing Research Methods II (3 credits)
OMS 511 Operations Management (3 credits)

Semester Four

ACT 600 Managerial Accounting (2 credits)
HCA 601 Health Care Finance (3 credits)
MKT 601 Marketing Management (3 credits)
NUR 605 Nursing of Populations II (4 credits)*

Semester Five

MBA 602 International Business (3 credits)
MLR 601 Human Resource Management and Labor Relations (3 credits)
NUR 505 Introduction to Epidemiology and Demography: A Nursing Perspective (3 credits)
NUR 606 Practicum in Population Health Care (4 credits)*

Semester Six

ACT 660 Integrative Business Strategy (4 credits)
MBA 600 Team Dynamics (1 credit)
BA 660 Integrative Business Strategy (4 credits)
MBA 603 Management of Innovation and Technology (3 credits)
NUR 606 Practicum in Population Health Care (4 credits)*
Ethics Elective (3 credits)
*These courses include a lecture and clinical component.

As a dual degree, the MBA program will accept nine hours of core MSN courses as elective credit, and the MSN program will accept ten hours of core MBA courses as elective credit.

Master of

Occupational Therapy

Department of Health Sciences

Department of Health Sciences
Health Sciences 101
(216) 687-3567
http://www.csuohio.edu/sciences/dept/healthsciences/graduate/index.html

John Bazyk, M.S. OTR/L, Chair
Glenn Goodman, Ph.D., OTR/L, Graduate Program Director

Introduction

Occupational Therapy, which began in 1917, is a health field that focuses on individuals' ability to do their everyday occupations in self-care, work, and leisure (such as dressing, homemaking, working, and recreating). Its goal is to help people achieve their own unique, desired lifestyles. It requires getting to know individuals personally, understanding their goals, and identifying creative ways to allow them to reach their desired levels of independence and productivity. This work is highly personal and creative. In addition to working directly with clients, occupational therapists often consult with others important to the client about adapting the client's lifestyle or environment. Occupational Therapists also design programs for themselves or others to implement, they speak on behalf of clients and their families, and they participate in research.

The Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education, 4720 Montgomery Lane, Bethesda, MD 20824-1220; (301) 652-2682. Students must complete a minimum of 79 credits, including 24 weeks (940 hours) of full-time fieldwork in order to be eligible to sit for the national certification examination and to apply for state licensure. The fieldwork must be completed within 24 months after completion of the academic course work. The certifying body for occupational therapists is the National Board for Certification in Occupational Therapy (NBCOT) (www.nbcot.org) . Note: A felony conviction may affect a graduate's ability to sit for the NBCOT certification examination or to attain state licensure.

Faculty Research

The Occupational Therapy Program faculty has an outstanding record of research and publications. Areas of expertise within the core faculty include outcome studies, assistive technology, gerontology, quality of life, legal issues in occupational therapy, occupational therapy education, mental health and function, international health care issues, work-related injuries, parent-professional collaboration, wellness and prevention, service learning, and development of

occupational therapy assessments.

The program has collaborative arrangements with many health care and service organizations that enhance research and learning opportunities. Some of these include The Benjamin Rose Institute, The Cleveland Clinic, Cleveland Metropolitan Schools, the Cuyahoga County Board of Mental Retardation and Developmental Disabilities, The City Mission, MetroHealth Medical Center, St. Vincent Charity Hospital, and University Hospitals of Cleveland.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Financial Assistance

A limited number of graduate assistantships (minimum of nine credit hours per semester) are available to full-time students. Assistantships may cover tuition and a stipend. Assistants may be involved in departmental projects or work with individual faculty on specific research and teaching endeavors. Contact the Health Sciences Department at (216) 687-3567 or via e-mail at healthsci@csuohio.edu for more details.

Admission Information

Admission to the program is limited to thirty students. Applications are available August 1 and are due no later than March 15 for Fall Semester admission.

Admission Criteria

Students must have:

1. A bachelor's degree from an accredited institution.
2. An overall grade-point average of at least 3.0 or a score at the 50th percentile or above in each area of the GRE.
3. A minimum GPA of 2.8 in the most recent forty-eight semester credit hours of course work, and a minimum GPA of 2.8 in natural science prerequisite courses, with at least two of the science prerequisites taken prior to application.

Application Procedures

Students must meet all College of Graduate Studies admission requirements and submit to the Graduate Admissions Office an Application for Graduate Admission, the $55 application fee, and all admission materials (official transcripts, test scores submitted by the testing agency directly to the University, letters of recommendation, department application packet, etc.).

In addition, applicants for the MOT program must:

1. Submit a completed MOT program application directly to the Health Sciences Department (Applications are available from the Health Sciences Department Web site http://www.csuohio.edu/healthsci/ot/admitapp.pdf).
2. Non-native English speakers must demonstrate proof of English-language proficiency. See Admission to the College of Graduate Studies for applicable policies and procedures.
3. Complete all prerequisite courses with a grade of C or better by the end of summer semester of the year of application.

Students who are enrolled in the Pre-therapy Track of the BSHS degree at Cleveland State University (after completing 30 hours of college course work with an overall GPA of 3.0 or above). may apply for an Intent to Enroll Program that guarantees admission into the Master of Occupational Therapy Program for selected BSHS graduates The student must complete an intent-to-enroll form that identifies the anticipated year of enrollment into the MOT program. The form also lists the application procedures and academic standards that must be maintained to be eligible for admission into the MOT program. Students must meet with a department advisor to initiate this process.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Required Prerequisites

1. **Pathology (HSC 381, if taken at Cleveland State).** Introduction to medical diagnosis and treatment, covering basic concepts and nomenclature of pathology, major diseases of body systems, epidemiology, biopsychosocial concepts, pharmacology, infectious disease, cellular injury, tissue repair, neoplasia, genetic disorders, musculoskeletal disorders, nervous system disorders, and psychiatric disorders.
2. **Physiology with lab (HSC 422 or BIO 422/423, if taken at Cleveland State).** Must be a 300-level or above course. Human or vertebrate physiology is recommended.
3. **Human Anatomy with lab (HSC 475 and HSC 457, if taken at Cleveland State).** Must be a 300-level or above course. Human cadaver dissection or prosection is recommended.
4. **Neurosciences with lab (HSC 476 and 478, if taken at Cleveland State).** Study of structure and function of human central and peripheral nervous systems, including vascular components and special senses.
5. **Lifespan (PSY 223, if taken at Cleveland State).** Examination of human development from infancy to old age preferred.
6. **Abnormal Psychology (PSY 345, if taken at Cleveland State).** Survey of major psychological disorders and their classification, etiology, and management.
7. **Social Science Statistics (Consult with Dept. Advisor for CSU options).** Content should include measures of central tendency, correlations, t-tests, analysis of variance, nonparametric statistics, application of descriptive and inferential statistics to analysis and interpretation of data in the social sciences, and hypothesis testing.
8. **Medical Terminology (HSC 203, if taken at Cleveland State).** Evidence of completion of medical terminology course or self-study.

Although not mandatory, it is strongly recommended that applicants volunteer and/or work under

the direct supervision of an occupational therapist in at least two areas of practice.

Requests for applications and advising appointments (also recommended) can be made with the Health Sciences Department by calling (216) 687-3567.

Program of Study

The Master of Occupational Therapy curriculum consists of 79 to 81 credits, including 51 credits in the core area, 18 credits of fieldwork, 4 credits of service learning, and 6 to 8 credits of electives. A capstone research project is required as part of the core curriculum. The two-year program begins fall semester. A part-time option is available for students who wish to complete the program in three years.

Students are required to meet with an advisor and select two elective courses as part of the required MOT academic course work. These courses are meant to enhance the students' skills in practice administration and/or teaching. Students are required to participate in 2 of 3 possible service learning classes during the academic portion of the program.

The courses are offered in the following sequence:

Fall Year I

HSC 506 Medical Conditions and Occupational Function (3 credits)
HSC 515 Musculoskeletal Evaluation and Intervention (2 credits)
HSC 516 Occupational Therapy Foundations (4 credits)
HSC 518 Occupational Development (4 credits)
HSC 528 Psychosocial Evaluation and Intervention (3 credits)

Spring Year I

HSC 509** Designing Creative Occupations (2 credits)
HSC 511* Service Learning in Occupational Therapy (2 credits)
HSC 517 Occupational Therapy Theory and Process (3 credits)
HSC 527 Neurological Evaluation and Intervention (3 credits)
HSC 529 Sensory and Cognitive Evaluation and Intervention (3 credits)
HSC 589 Occupational Therapy Research I (3 credits)

Summer Year I

HSC 509** Designing Creative Occupations (2 credits)
HSC 569 Occupational Environments (3 credits)
HSC 579 Occupational Therapy Administration and Management (3 credits)
Elective ***

Fall Year II

HSC 511 Service Learning in Occupational Therapy (2 credits)
HSC 535 Occupation and Participation I (4 credits)
HSC 536 Occupation and Participation II (4 credits)
HSC 558 Occupational Therapy Practicum I (3 credits)
Elective ***

Spring Year II HSC 511 Service Learning in Occupational Therapy (2 credits)*

HSC 537 Occupation and Participation III (3 credits)
HSC 559 Occupational Therapy Practicum II (3 credits)
HSC 591 Occupational Therapy Research II (2 credits)
HSC 560 Interdisciplinary Team Development (2 Credits)
Elective***

Summer Year II

HSC 595 Level II Fieldwork I (6 credits)

Fall Year III

HSC 596 Level II Fieldwork II (6 credits) \

*students choose two service learning classes from the three offerings listed

** students can take the designing creative occupations class in spring or summer semester of the first year

*** students must choose two elective courses taken either summer, fall or spring semester

Graduate Certificate Programs

Some interdisciplinary graduate certificate programs are administered through the Department of Health Sciences: Culture, Communication, Health Care; Gerontological Studies; and Occupational and Physical Therapy in the Schools. Detailed information about these programs can be found elsewhere in this Catalog; please refer to the index.

Master of Arts in

Philosophy

Department of Philosophy

Rhodes Tower 1932
(216) 687-3900
http://www.csuohio.edu/class/philosophy/MAprog.html

Diane Steinberg, Department Chair

Introduction

The Master of Arts in Philosophy program provides an opportunity for graduate study to individuals with a serious interest in philosophy. Inquiries are welcome from students whose primary background is in another field or academic discipline. The program regularly offers courses in all the major areas of philosophy, meeting the needs of those who are preparing to enter a Ph.D. program, as well as those studying for personal or professional enrichment.

Current faculty information can be located on the Cleveland State University Faculty Profile page

Financial Assistance

The department awards several teaching assistantships each year. A student interested in applying for an assistantship should write a letter to the Graduate Advisor requesting consideration when he or she submits an application for graduate admission.

Career Information

Graduates of the Master of Arts in Philosophy degree program have gone on to successfully complete Ph.D. programs, to graduate from law school or medical school; and to teach at the community college level.

Admission Information

To be admitted to the program, the student must satisfy College of Graduate Studies requirements for admission. Although an undergraduate major in philosophy is not required, some study in philosophy beyond the introductory level is strongly recommended. A background in the history of philosophy and in logic is especially important, and deficiencies in these areas must be made up early in the student's graduate career. To be considered for admission, a

student must submit an application form, two letters of recommendation, and transcripts from all academic institutions attended.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

All students must meet University degree requirements stated in the front section of this Catalog.

Core Requirements

1. Thirty-two (32) credits are required for graduation. These must include at least one course in two of the following areas:
   a. Philosophy of science, metaphysics, or epistemology.
   b. Ethics, aesthetics, or social and political philosophy.
   c. Logical theory.

   The remaining courses must be selected in accordance with either the thesis option or the non-thesis option.

2. Every student must pass a written comprehensive examination.
   a. Students in the general MA program must demonstrate proficiency in the history of philosophy. The examination is divided into two parts: 1) Ancient and Medieval Philosophy and 2) Modern and 19th-20th Century Philosophy. The two parts may be taken in different semesters. Students may not take either part of the examination more than three times. Works involved in topics on the comprehensive exam are regularly covered in seminars on prominent philosophers and movements (PHL 505, PHL 510). Students are not expected to take the examination prior to completing sixteen hours of graduate work, but may take it anytime thereafter. Students should consult with the graduate advisor about the comprehensive examination early in their graduate study.
   b. Students in the bioethics concentration are examined on the history of ethics, ethical theory, and bioethics.

Thesis Option

Before registering for PHL 699 (Thesis), students must receive formal approval of their proposed thesis topic from the department and the College of Graduate Studies. Students should consult with the Graduate Advisor in the semester prior to their first registration for PHL 699. The program for students who elect to write a thesis must meet the following conditions:

1. A minimum of twenty-four credits in courses other than PHL 614, PHL 689, PHL 691, PHL 696, and PHL 699.
2. No more than eight credits for research and thesis courses (PHL 696 and PHL 699).

3. Completion of an acceptable thesis under the direction of a departmental faculty member. Three copies of the thesis must be submitted to the Graduate Advisor at least six weeks prior to the expected date of graduation. Three readers, including the thesis advisor, will examine the student in an oral defense. One reader may be chosen from another discipline related to the thesis topic. The endorsement of the thesis by all three readers will constitute formal acceptance by the department. Two bound copies of the thesis are required by the department.

Non Thesis Option

The program for students who elect the non-thesis option must meet the following conditions:

1. A minimum of twenty-eight credits in courses other than PHL 614, PHL 689, PHL 691, PHL 696, and PHL 699, three of which must be courses requiring substantial papers
2. No more than four credits of PHL 696.

Concentration in Bioethics

Students who complete the core requirements in Philosophy and the requirements for Bioethics Certification (see Graduate Certificate in Advanced Study in Bioethics section of this Catalog) can receive a Master of Arts in Philosophy with a Concentration in Bioethics. Students in this concentration must take the Bioethics comprehensive examination.

Master of Science in

Physics

Department of Physics

Science Building 112
(216) 687-2425
http://www.csuohio.edusciences/dept/physics/

Miron Kaufman, Chair
James Lock, Graduate Program Director

Areas of Study

Optics and Materials
Medical Physics
Optics and Medical Imaging

Introduction

Currently, there is tremendous growth in optics, condensed matter, and medical physics caused by rapid developments in the fields of superconductivity, electro optic materials, optical, acoustical, and NMR imaging, semiconductor devices, tomography, holography, and image-processing. The Physics Department of Cleveland State University offers an MS degree in physics, with emphasis on optics and condensed matter physics, or on medical physics, designed for applied scientists and engineers who wish to develop competence in these rapidly advancing fields. In 2005, the American Physical Society classified the Master of Science in Physics program at Cleveland State in the "strongest professional master's degree program" category.

Current Research

Macromolecular Crystallography X-Ray studies of crystallized biologically and chemically interesting molecules, for designing molecules with specific biological activities for developing drugs.

Experimental Solid-State Physics Current topics in the electronic properties and possible applications of novel materials include intercalated graphite fibers, conductor-insulator composites, and thin-film materials. Most measurements involve low-temperature and/or high-pressure techniques.

Experimental Optics Laser spectroscopy is being used to study diffusional processes. Presently, aggregation processes that result in the formation of fractal aggregates and phase transitions in liquid mixtures and micro emulsions are under investigation.The optical properties of various polymer materials also are being studied using laser techniques.

Optoelectronics Investigation of basic physics and applications of transparent electronic materials.

Theoretical Optics Mie-scattering calculations presently are being undertaken on artificially produced and natural aerosols for the purpose of understanding a number of atmospheric and basic scattering phenomena.The structure of optical caustics produced by liquid droplet lenses also is being investigated, both experimentally and theoretically.

Statistical Physics Phase transitions in liquid mixtures, glasses, polymers, superconductors, and magnets are being studied by applying modern techniques such as the renormalization group. Statistical physics methods are applied to cognitive science, health sciences, and polymer processing.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Admission Information

To be considered for admission to the Master's program in Physics with a Specialization in Optics/Materials or Optics/Medical Imaging, students must meet [College of Graduate Studies](#) requirements for admission (see the Admission section of this Catalog) and have an undergraduate degree in physics, mathematics, engineering, or an allied field.

Students with deficient backgrounds are required to register for additional courses to remove deficiencies. To be considered for admission to the Master of Science in Physics with a Specialization in Medical Physics, applicants must meet College of Graduate Studies admission requirements and hold an undergraduate degree in physics, chemistry, electrical engineering, chemical engineering, mechanical engineering, or nuclear engineering. All students applying for the MS in Physics program with a Specialization in Medical Physics must take the GRE general examination, verbal reasoning, quantitative reasoning and analytical writing. Students whose undergraduate training was not in the United States and whose native language is other than English must also take the TOEFL examination and score above 600 (paper version) and the Test for Spoken English (TSE) and score above 300. All applications must be received by April 1.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Undergraduate Deficiencies:

For students applying to the Medical Physics program, the following courses must be taken if

there are deficiencies in the applicant's undergraduate preparation: PHY 330 Introduction to Modern Physics PHY 350 Electricity and Magnetism PHY 360 Electronics Laboratory PHY 474 Thermal Physics BIO 266 Human Anatomy and Physiology BIO 267 Human Anatomy and Physiology Laboratory

Degree Requirements

A minimum of 32 credit hours, approved by the Physics Graduate Committee, is required for graduation.

Optics and Materials

PHY 520, Computational Physics (4 credits)
PHY 550, Optics (4 credits)
PHY 555, Advanced Optics Laboratory (4 credits)
PHY 560, Laser Physics and Photonics (4 credits)
PHY 565, Image Processing (4 credits)
PHY 580 Optical Materials (4 credits)
PHY 598. Project (4 credits)
PHY 680 Physics of Materials (4 credits)

Medical Physics

PHY 515, Introduction to Biological Physics (4 credits)
PHY 520, Computational Physics (4 credits)
PHY 530, Introduction to Medical Physics (4 credits)
PHY 535, Radiation Therapy Physics (4 credits)
PHY 565, Image Processing (4 credits)
PHY 570, Environmental Physics (4 credits)
PHY 596, Laboratory Training in Radiation Therapy Physics I (4 credits)
PHY 597. Laboratory Training in Radiation Therapy Physics II (4 credits)

Optics and Medical Imaging

PHY 520 Computational Physics (4 credits)
PHY 530 Introduction to Medical Physics (4 credits)
PHY 550 Optics (4 credits)
PHY 555 Advanced Optics Laboratory (4 credits)
PHY 560 Laser Physics and Photonics (4 credits)
PHY 565 Image Processing (4 credits)
PHY 593 Special Topics: Monte Carlo Simulations (2 credits)
PHY 598 Project (4 credits)
CHE 659 Medical Imaging (3 credits)

Master of Arts in

Psychology

Department of Psychology

Chester Building 158
(216) 687-2544
http://www.csuohio.edu/sciences/dept/psychology/graduate/index.html

Albert Smith, Interim Chair
Amir Poreh, Clinical Program Director
Chieh-Chen Bowen, Consumer Industrial Research Program Director
Lisa Gaynier, Diversity Management Program Coordinator
Albert F. Smith, Experimental Research Program Director
Kathleen McNamara, School Psychology Program Director

Areas of Study

Clinical Psychology Program
Consumer-Industrial Research Program
Diversity Management Research Program
Experimental Management Program
School Psychology Program

The Programs

The Master of Arts (MA) in Psychology program is comprised of specializations in Clinical Psychology, Experimental Research, Consumer-Industrial Research, Diversity Management and School Psychology. The program in Clinical Psychology is designed primarily for students interested in the field of psychological service, broadly conceived to embrace community, clinical, and educational settings. The Experimental Research program emphasizes basic and applied research skills, to be developed through an individually tailored program of study that includes both core (required) and elective courses and culminates in the successful completion of a thesis. Graduates obtain positions in various research settings as research coordinators or data analysts and managers, or pursue advanced educational programs. The program in Consumer-Industrial Research prepares students to apply psychological research techniques and concepts in business and institutional settings. Graduates are qualified for positions in public opinion polling, market research, program evaluation, personnel, human resources, and other applied research and data analysis contexts. The program in Diversity Management provides students with a solid foundation in psychological theory, research, and applied skills necessary for effective understanding and management of human diversity in organizations. The MA in

Psychology serves as the first phase of the School Psychology program, which is described in the Psychology Specialist, School Psychology Program section of this catalog.

Admission Information

In addition to College of Graduate Studies requirements for admission, the Department of Psychology requires of all applicants:

1. Scores from the Graduate Record Examination (GRE). Requirements vary by program; see specific program requirements.
2. A firm foundation in the basic principles of psychology.
3. A personal statement.
4. Additional information for the School Psychology Program appears in the Psychology Specialist, School Psychology program section of this catalog.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

For More Information

For further information, contact the Psychology Department at (216) 687-2544 to arrange an appointment with a program advisor. The Psychology Department is located in the Chester Building, Room 158.

Clinical Psychology Program

Introduction

The Clinical specialization at Cleveland State may be referred to as a terminal master's degree program because the department does not currently offer a doctoral degree program. Upon receipt of the Master's degree in Clinical Psychology, graduates may apply to doctoral programs at other institutions. Graduates may also elect to work as a psychology assistant under the supervision of a doctoral-level, licensed psychologist. Psychology assistants work in hospital, forensic, or clinical settings and engage in assessment, treatment and research activities.

The Clinical specialization offers two tracks of study to accommodate the interests of students:
  (a) Doctoral preparation track, which requires the completion of a research or data based thesis; and
  (b) Practitioner track, which allows students more flexibility in elective coursework.

Each track requires the student to complete a 52 credit hour program of coursework and clinical field experiences. The program requires full-time study for two academic years. No courses are offered during the summer, though students in the doctoral preparation track frequently work on their theses during the summer between the first and second years of the program.

Both tracks emphasize core content and basic skills in the first year, and practical experience and professional skills in the second year. The curriculum emphasizes human development and its deviations, as well as the methods and techniques of assessing and influencing this development in clinical, community, and educational contexts.

Faculty Research and Publications

The faculty members of the Clinical Psychology specialization have diverse interests, which are reflected in the course content of the classes they teach and in articles written for national and international publications. These interests include child and adult psychopathology; human motivation and attitudes; psychopharmacology; women's issues; legal and ethical issues in psychology; multicultural issues; cognitive behavior therapy; abnormal psychology; gerontology (normal and pathological aging, health psychology); personality tests assessment; and social competence promotion.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Financial Assistance

Tuition grants generally are awarded to first-year students, which covers the cost of

approximately 18 credit hours of coursework. All application materials must be received by February 15 for full consideration for financial assistance. During the second year of the full-time Clinical Psychology specialization, some students work in paid fieldwork placements.

Career Information

Graduates of the Clinical Psychology specialization typically are employed as psychology assistants in such work settings as hospitals, mental health centers or clinics, private practice, human service agencies, industrial settings, and geriatric facilities. Primary functions include assessment, consultation, and administration. About 30 percent of graduates in this specialization continue on to pursue doctoral degrees.

Admission Information

The Clinical specialization requires of all applicants:

1. Scores from the General Aptitude Test of the Graduate Record Examination;
2. A firm foundation in the basic principles of psychology (e.g., at least a 3.0 undergraduate GPA with a major or minor in psychology);
3. A completed departmental information form and personal statement;
4. Official transcripts for all colleges and universities attended;
5. Two letters of recommendation; and
6. An interview, by invitation, with faculty members of the Clinical Psychology program committee.

For optimal consideration of their application to the Clinical Psychology specialization, prospective students should complete the following course work before enrollment: Introductory Psychology, Personality or Theories of Personality, Abnormal Psychology, Memory and Cognition, Basic Statistics, and Experimental Psychology (Laboratory or Research Design).

Preparation beyond the minimum suggested above will likely strengthen applications. If an applicant received a BA in psychology five or more years ago, he or she is encouraged to update credentials by enrolling in advanced undergraduate or beginning graduate courses. The application deadline is February 15.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

(Clinical Psychology Specialization)
Year One: Fall Semester
 PSY 511 Univariate Statistics and Experimental Methodology (4 credits)
 PSY 535 Clinical Interviewing Practicum (2 credits)
 PSY 538 Intellectual Assessment and Practicum for Clinical Psychology (4 credits)

PSY 555 Adult Psychopathology (4 credits)

Year One: Spring Semester
PSY 604 Concepts and Methods of Individual Psychotherapy (4 credits)
PSY 651 Clinical Psychopharmacology (4 credits)
PSY 611 Advanced Data Analysis with Computer Applications or other methodology/statistics (e.g., COM 531) (4 credits)

Year Two: Fall Semester
PSY 587 Personality Testing and Laboratory (4 credits)
PSY 660 Ethical, Legal, and Professional issues (2 credits)
PSY 690 Fieldwork Placement (4 credits)
PSY 699 Research and Thesis (4 credits) (Doctoral preparation students)
4 credits of electives for Practitioner track students

Year Two: Spring Semester
PSY 691 Fieldwork Placement (4 credits)
PSY 699 Research and Thesis (4 credits) (Doctoral preparation students)
4 credits of electives for Doctoral preparation students; 8 credits of electives for Practitioner track students

Fieldwork Placement

All students in the Clinical Psychology specialization who perform satisfactorily during the first year are assigned half-time (15 hours per week) field placements in their second year (PSY 690 and PSY 691). Four hours of academic credit are earned each semester for satisfactory completion of fieldwork; grades of S (Satisfactory) or F (Failure) are given upon completion of each semester over the full year's experience. Agency fieldwork supervisors make periodic, comprehensive evaluations of the students' work. Students may, on occasion, be required to continue their fieldwork placements into the summer, if necessary, to demonstrate satisfactory performance.

Exit Requirements

A thesis is required of Clinical Psychology students in the Doctoral Preparation track. For Clinical Practitioner students, graduation is based on the successful completion of the required courses and fieldwork experience. These students, however, may elect to substitute a thesis for specified course work as part of the program of instruction.

The Consumer-Industrial Research Program

Introduction

The Consumer/Industrial Research program (CIRP) prepares students to conduct applied research in business and organizational settings. Students acquire the conceptual tools, research methods, and data analysis techniques to understand consumer product purchasing, advertising responses, brand image, and related processes.

A second emphasis of the Consumer/ Industrial Research program is the application of research methods and data analysis skills within an organization. Training is given in job satisfaction surveys, organizational climate surveys, evaluation of new organizational programs, conducting job analysis projects, and other related methods.

The base for both areas of applied research is the development of the ability to design applied research, gather and analyze data, and determine the meaning and significance of the results. Therefore, there is an emphasis on statistics and research-methods courses. The content courses in consumer and industrial-organizational psychology build on these courses for specific applications. Electives may be used to augment both research skills and content areas.

This specialization is designed to be completed in one and one-half to two years and culminates with a thesis. While it is expected that all students will have the opportunity to participate in the solution of actual problems under the guidance of faculty, selected students also have the opportunity for field placements in business settings.

The first year of the Consumer/Industrial Research specialization typically consists of the program core, quantitative methods, research design, field research methods, and substantive courses in industrial-organizational psychology and consumer behavior. During the second year, the student typically enrolls in elective courses while working on the thesis.

Faculty Research and Publications

Faculty members have contributed over 200 publications, including books, book chapters, journal articles (e.g., Journal of Marketing Research, International Journal of Human Resource Management, Journal of Applied Social Psychology, Internet Research, Multivariate Behavioral Research, Academy of Management Review), technical reports, and convention papers, as well as articles in trade periodicals, such as Quirk's Marketing Research Review and Marketing News. The faculty serve as reviewers for over a dozen professional journals. Illustrative studies focus on occupational stress, measurement of consumer preferences, reactions to advertising, personality aspects of occupational choices, development of performance appraisal systems, computer modeling of individuals' purchase decisions, job applicant attitudes and behavior, and training and work motivation.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Career Information

The program prepares students to work in organizations that need "people" information, whether it concerns consumers or organizational members. Students completing this program are capable of designing and executing research to answer questions in a manner that will contribute to the functioning of the organization. In the area of consumer behavior, graduates are suited to market research and public opinion research positions and to conduct program evaluation and assessment in public agencies. Additionally, in the industrial-organizational realm, they are prepared for employee surveys, training-effectiveness evaluation, job analysis, developing selection systems, and related research.

Admission Information

Applicants for admission to the Consumer/Industrial Research specialization must submit the following:

1. An Application for Graduate Admission;
2. Scores on the General Aptitude portion of the GRE;
3. A personal statement;
4. Official transcripts for all colleges and universities attended; and
5. Two letters of recommendation.

For full consideration for financial assistance, applications should be completed no later than March 15th. However, applications are reviewed as they are completed, until the class is filled. Among the criteria used by the committee for selection are the standard indicators of academic promise—prior grades, test scores, and letters of recommendation— plus indications of particular promise based on skills, personal characteristics, and experiences relevant to work in the Consumer/Industrial Research specialization. Additionally, the committee expects candidates to have completed at least six credits in psychology and to have a command of basic statistical analysis. Preferred candidates will have a strong statistical background, prior experience, and a record of high achievement.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

(Consumer/Industrial Research Specialization)

The program requires satisfactory completion of a 43-credit-hour sequence, including Thesis.

Core A Core Content Requirements (16 credits)

PSY 519 Consumer Psychology (4 credits)
PSY 620 Advanced Consumer Research (4 credits)
And two of the following courses
PSY 518 Personnel Psychology (4 credits)
PSY 522 Organizational Psychology (4 credits)
PSY 593 Special Topics in Psychology: Advanced Organizational Psychology (4 credits)
PSY 631 Job Analysis and Performance Appraisal (4 credits)

Core B Methodological Requirements (12 credits)
  PSY 531 Computer Applications of Advanced Statistics (4 credits)
  PSY 512 Field Research Methodology (4 credits)
  PSY 611 Advanced Data Analysis with Computer Applications (4 credits), or COM 531
Multivariate Statistical Methods (4 credits) with CIRP program director's permission

Core C Research Requirements (4 credits)
  PSY 699 Research and Thesis (4 credits)

Electives (11 credits)
Select from the following:
  PSY 518 Personnel Psychology (4 credits)
  PSY 522 Organizational Psychology (4 credits)
  PSY 525 Social Psychology (4 credits)   PSY PSY 590 Consumer/Organizational Psychology
Internship (4 credits)
  PSY 596 Special Problems in Psychology (4 credits)
  COM 533 Content Analysis Research Materials (4 credits)
  COM 540 Persuasive Communication and Campaigns (4 credits)
  MLR 640 Performance Appraisal, Compensation, and Benefits (3 credits)
  MKT 501 Marketing Theory and Practice (3 credits)

Other courses in Marketing, Operations Management and Business Statistics, Management and
Labor Relations, Communication, and Psychology are possible for elective credit, subject to
approval by the CIRP Faculty Committee.

Thesis

Students completing a thesis should take four credit hours of PSY 699 Research and Thesis.

Exit Requirements

Upon completion of the core courses, a student submits a thesis proposal to a committee of
faculty selected by the student and faculty advisor. With committee approval, the student carries
out his or her research under the direction of the advisor.

Diversity Management Program

The Masters in Diversity Management Program (DMP) offers students the opportunity to integrate cutting-edge diversity knowledge with skill-focused applications in an environment that fosters courageous conversations and safe experimentation. Graduates attain the knowledge, skills and abilities to have a positive impact on the workplaces of the 21st century global economy.

Program Description:

Graduates of this distinctive Masters' in Psychology increase their ability to foster organizational excellence by learning how to lead diverse people in a complex global environment. Especially geared to the needs of adult learners, this program includes both classroom instruction and practical application. Participants will learn the essentials of group dynamics, group facilitation techniques, and organizational assessment in addition to developing self-understanding and building skills as a change agent. The Diversity Management Program is a uniquely designed executive MBA-style program. Classes meet for three intensive days a month for 18 months, allowing for the more effective accommodation of work schedules. Program fee includes books, materials and meals while on-site. Class cohorts begin every August.

Research

Although this is a practitioner-focused program, full-time faculty do conduct research in culture and diversity issues. Faculty hold doctoral and MA degrees and have extensive experience in the field as consultants and practitioners. Their areas of expertise include organizational behavior, strategic management, diversity management, diversity and inclusion education, interpersonal relations, leadership, change leadership, collaborative conflict management, human resource management, cultural competence and group dynamics. They have professional experience conducting training, performing organizational assessments and the full range of diversity interventions.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Admission Information

Applicants to the Diversity Management program must:

1. Hold a bachelor's degree;
2. Complete both the College of Graduate Studies and department admission application forms;
3. Submit academic transcripts for all colleges and universities attended;

4. Submit two letters of recommendation; and
5. Complete a Personal Statement Form, which includes:
   a. A brief biographical sketch, noting events or experiences that provide supportive evidence that the applicant is an appropriate candidate for the degree in Diversity Management.
   b. A description of the applicant's goals and interests in Diversity Management and how the MA program will facilitate achievement of those goals.

Applicants must demonstrate a firm foundation in the basic principles of psychology, business, or a related field. Applicants who lack this background but whose candidacy for admission is strong in other respects may be offered entrance to the program contingent on remediation of deficiencies. In addition, applicants with an undergraduate grade-point average below 2.75 must provide scores at the 50th percentile or above on the GRE (general and subject sections of the examination). This requirement may be waived for those who have already earned a master's degree or at the program's discretion.

Applicants are admitted for study beginning fall term. Application deadline is March 31st. Applications are reviewed as they are completed and admission decisions are made on a "rolling" basis. Early application is encouraged. To ensure consideration, contact the program director by May 31.

Submit all application materials to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

The nontraditional-format for course work is indicated in the curriculum outlined below.

First Year
(20 credits)
  PSY 525 Social Psychology (4 credits)
  PSY 573 Group Dynamics (4 credits))
  PSY 605 Human Services Consultation and Intervention (4 credits)
  PSY 672 Multicultural Psychology and Diversity Practicum (4 credits)
  PSY 518 Personnel Psychology (4 credits)

Second Year
(20 credits)
  PSY 522 Organizational Psychology (4 credits)
  PSY 690 (4 credits) and PSY 691 Fieldwork Placement: Diversity Consultation (4 credits) (taken fall and spring terms for a total of eight credits)
  PSY 699 Research and Thesis (4 credits) or PSY 685 Directed Readings for Comprehensive Examination and Thesis (4 credits)

Fieldwork Placement

In the second year, students work in small consulting groups with organizations that seek diversity management interventions. Over the six-month period of this supervised, hands-on experience, students apply assessment strategies to gather data on the organizational culture, analyze the data, provide feedback, recommend changes, and deliver the indicated interventions to the client.

Exit Requirements

Students have three exit options. They enroll in either PSY 685, Directed Readings for Comprehensive Exam; PSY 686, Action Research; PSY 699, Thesis. Preparation for exit requirements begins in the summer semester after the first year. Students enroll for one credit in the chosen course in summer, fall and spring semesters. Students taking Comprehensive Examinations attend review sessions and study groups. On an assigned date, they take a written examination that is evaluated by members of the faculty for satisfactory completion of program exit requirements.

For the thesis requirement, each student conducts research designed to contribute new knowledge to the field of diversity management. The student presents findings and analysis in a thesis suitable for publication. For the Action Research requirement, each student completes an action research project with a client system and writes a comprehensive analysis report on the intervention. Students who have selected thesis or action research options make oral presentations of their work in their final semester before graduation.

Experimental Research Program

Introduction

The goal of the Experimental Research specialization in Psychology is for students to develop skills in research design and analysis, broad knowledge of substantive areas of psychological research, and expertise in one research area. The program consists of both required and elective courses and an individual research experience that culminates in completing a master's thesis.

Every student is expected to become involved in research when he or she begins the program and to continue this involvement during his or her course of study. Ideally, each student participates in a faculty member's research program; after developing appropriate knowledge and skills about this domain, the student demonstrates expertise by completing a thesis (with the advice and supervision of that faculty member).

Faculty Research and Publications

Areas of faculty expertise include behavioral pharmacology, cognition (including perception, attention, memory, and decision-making), health psychology, history of psychology, human performance, research methodology, and social psychology. Current areas of faculty research include accuracy of survey self-reports, issues in the history of psychology, motor performance, student evaluations of instruction, consumer behavior, language perception, human sexual behavior, psychosocial interventions for individuals with dementia, successful aging, group processes, and visual perception.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Research Facilities

Research facilities include testing rooms equipped with microcomputers and software for experimental data collection. The University holds licenses for major statistical software packages; these are available in University computer laboratories, as well as in the Psychology Department's computer laboratory. Most scholarly materials, if not available in the University Library, are readily accessible through Ohio Link, a statewide consortium of libraries that subscribes electronically to many journals, or through inter-library loan.

Financial Assistance

TAssistantships in the form of tuition grants are typically awarded to first-year students. Some financial assistance may be available to second-year students. To be considered for financial assistance, applications must be received by March 1.

Career Information

Graduates of the Experimental Research program often pursue further graduate work in psychology or seek employment in research-related occupations. The skills and knowledge acquired in the Experimental Research program may provide a beneficial foundation for further graduate study in other professional fields (e.g., clinical psychology, law, business).

Admission Information

In addition to all materials required for an application to the Graduate College (i.e., application form, transcripts), an application to the Experimental Research program in Psychology must include:

1. Official Graduate Record Examination (GRE) scores for the General Aptitude Test. An applicant is encouraged to submit the results from the GRE Psychology Subject test if the score would enhance his or her application:
2. A personal statement;
3. A completed departmental information form; and
4. Two letters of recommendation, preferably from individuals familiar with the applicant's academic abilities.

An applicant should have some academic preparation in psychology. A prospective applicant without such preparation is encouraged to consult with the program director about his or her preparation for the program.

Applications are reviewed on a rolling basis. For full consideration for financial assistance, applications should be received by March 1.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

(Experimental Research Specialization)

Forty (40) credit hours are required for graduation from the program. The course requirements are listed below. A student is expected to involve his or her mentor/advisor and/or the program director in the course selection process so that course work is well suited to the student's objectives. For full-time status, a student must be registered for at least 9 credits per semester. The Experimental Research Program Committee must approve departures from the specified curriculum, as well as acceptance of transfer credit.

Core A (16 credits)
  PSY 511 Univariate Statistics and Experimental Methodology (4 credits) (offered once each

year)
  PSY 611 Advanced Data Analysis with Computer Applications (4 credits) (typically offered once each year)
  PSY 699 Research and Thesis (4 credits) (taken twice for a total of eight credits) (offered every semester)

Core B (16 credits)
(each course offered every two to three years)
Select four of the following:
  PSY 525 Social Psychology (4 credits)
  PSY 561 Classical, Instrumental, and Operant Conditioning (4 credits)
  PSY 562 Learning, Memory, and Cognition (4 credits)
  PSY 568 Advanced Perception (4 credits)
  PSY 582 Personality Theory and Research (4 credits)
  PSY 588 History of Psychology (4 credits)
  PSY 589 Physiological Psychology (4 credits)
  PSY 651 Clinical Psychopharmacology (4 credits)

Electives (8 credits)
Any graduate courses (including non-psychology courses) approved by a faculty advisor.

Exit Requirements

To be awarded the MA degree in Psychology, a student must complete 40 credit hours of course work and a thesis. Courses should be selected in consultation with a faculty advisor, and the program of study must be approved by the Experimental Research Program committee. For the thesis project, it is the student's responsibility to identify a suitable advisor; students are encouraged to consult with the program director for assistance. In consultation with the advisor, the student identifies two other faculty members to serve on the thesis committee. After the committee approves a thesis prospectus, the project may be carried out. To complete the thesis project requires both that the written thesis be accepted by the committee and that the student orally present his or her findings. Students should consult the College of Graduate Studies policies and requirements concerning theses in the appropriate section of this Catalog.

School Psychology Program

The School Psychology Program consists of two degree phases: the Master of Arts in Psychology, followed by the Psychology Specialist. Program features and admission requirements are described in this catalog under the heading, Psychology Specialist, School Psychology Program

Master of

Public Administration

Maxine Goodman Levin College of Urban Affairs

Urban Affairs 231
(216) 687-2136
http://urban.csuohio.edu/academics/graduate/mpa/

Jessica E. Sowa, Graduate Program Director

Areas of Study

Public Management (General Public Management, Nonprofit Management, City Management, Public Safety and Justice Management)
Economic Development
Health Care Administration (Public Health Management, Long-Term Care Administration)

Accreditation

The Master of Public Administration program is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA). Additionally, the Maxine Goodman Levin College of Urban Affairs, which houses the MPA program, has been designated a Center of Excellence in Public Administration by Cleveland State University. The MPA program also was ranked second in the nation by U.S. News and World Report in the area of city management/urban policy.

Mission

The Master of Public Administration program's mission is to advance intellectual and administrative leadership in public administration by preparing students to assume the challenges of public service. Course work gives a diverse student body a foundation in general public administration and specialized skills grounded in one of the program's areas of expertise. It also helps students to discover, construct, interpret, and disseminate knowledge and understanding about the practice of public affairs. The MPA program also serves the Northeast Ohio region, including the professional community, by extending intellectual resources and applying knowledge.

The MPA program has built this mission on a commitment to nationally recognized excellence in public administration education and research, to the development of leadership in government, to public service for solutions to urban problems, and to an enhanced understanding of public policy and management in a global and diverse society. Through its activities, the Master of Public

Administration program supports the educational, research, and public-service missions of the Maxine Goodman Levin College of Urban Affairs and Cleveland State University.

The Master of Public Administration program is multidisciplinary, drawing on the faculties of the Nance College of Business Administration, the Levin College of Urban Affairs, and the Department of Political Science. The principal objective of the program is to prepare its graduates for administrative positions in government, nonprofit, and public-service organizations. The program provides a broad educational base, as well as specific administrative techniques as preparation for positions carrying administrative responsibility. The program is designed both for in-service students and recent college graduates seeking careers in government and public-service organizations. Most courses are offered in the evening and a few on weekends, allowing students to take classes after work hours.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

For updated MPA program information, visit the Web site at http://urban.csuohio.edu/academics/graduate/mpa/

Research Units

Students have the opportunity to work with the faculty and staff in the research, public-service, and training centers of the Levin College. See the Educational Resources section of this Catalog for information on the Levin College facilities.

College Computing and Technology

Two general purpose computer labs are located in UR 39 and UR 40. Software available in the labs include applications for word processing, spreadsheet analysis, database, computer aided presentation, Geographic Information Systems, ArcInfo, Internet access, and statistical analysis. The labs provide access to laser printers for high-quality black-and-white output, a color laser printer for GIS maps, and a color scanner for capture of graphics. Each lab is equipped with a permanently mounted LCD projector for teaching computer-based classes. Levin College students are provided with disk space on the networked server for conveniently storing class work and for creating personal web pages. The Interactive Media Lab (IML) is available for production of DVDs, CD-ROMs, video/audio streams, and advanced graphics. Digital video/audio capture equipment is available. The IML is equipped with Apple Macintosh computers and a Quicktime streaming server. Additional computing information may be found at the College Web site at urban.csuohio.edu.

Career Information

The Levin College—through the Office of Student Services and the faculty— provides a variety of services related to career planning to help students and graduates find employment related to

their program of study. Current job postings are maintained in the Office of Student Services and on the College Web site. Cleveland State's Career Services Center also provides graduate students and alumni with career advice and career-development assistance, including resume review. See the section on Campus Services and Programs: Career Services in the front of this Catalog.

Financial Assistance

The Levin College provides graduate assistantships on a competitive basis to full-time students. Although the deadline for receipt of graduate-assistantship applications is March 1, fullest consideration is given to those who have submitted all application materials for the MPA program by February 1.

The College also offers paid internships and tuition grants to eligible degree-seeking students. Application forms are available from the Levin College Office of Student Services. See also the section on Expenses and Financial Aid: Graduate Assistantships in the front of this Catalog.

Admission Information

Applicants to the Master of Public Administration Program must meet the minimum requirements established by the College of Graduate Studies and the MPA program faculty:

1.   A minimum undergraduate grade-point average of 3.0.

2.   Graduate Record Examination (GRE) scores, with an average Verbal and Quantitative score at the 40th percentile or above, and an Analytical Writing score of at least 4.0.

Students with a graduate degree from an accredited college or university are exempted from this requirement.

The LSAT may be substituted for the GRE only by JD/MPA applicants. Other standardized admission examinations may be substituted at the discretion of the Program Director.

3.   Two letters of recommendation, using the Recommendation Form for Graduate Admission (available online at (http://www.csuohio.edu/gradcollege/admissions/pdf/recommend.pdf).

4.   Non-native English speakers must demonstrate English-language proficiency as indicated in the front of this bulletin under "Admission Requirements for International Students and Permanent Residents".

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Types of Admission

The academic status of a graduate degree-seeking applicant is determined after a review of admission credentials. Graduate Program Committees, in concurrence with the Office of Graduate Admissions, may recommend admission of applicants as regular or conditional graduate students. Please refer to the Admission to the College of Graduate Studies section of this catalog for information on admission categories.

Program Requirements

The curriculum for the MPA program consists of forty-two to forty-five credit hours of study, depending on the method of degree completion. The program is divided into core courses, a specialization, electives, and a Public Administration Capstone.

Core Courses

The core of the MPA curriculum (16 credit hours) is required of all students and consists of the following:

PAD 600 Introduction to Public Administration
PAD 601 Applied Quantitative Reasoning I
PAD 603 Public Finance and Economics
PAD 604 Organizational Behavior

Students in the Economic Development track must also take PAD 617/PSC 605: Public Administration and the Political Process.

An assessment of quantitative skills is required for all MPA students, regardless of admission type. This assessment determines whether students must enroll in PAD 501: Fundamentals of Applied Reasoning.

Areas of Specialization

All students complete a minimum of three courses in an area of specialization. The three areas of specialization and related options are listed below. See the Graduate Programs Advisor for specific curriculum plans.

- **Public Management (General Public Management, Nonprofit Management, Public Safety Management)**
- **Economic Development**
- **Health Care Administration (Health Care Management, Long-Term Care Administration)**

Elective Credit

All students are required to take elective courses chosen with the approval of the Academic

Coordinator of their track specialization. The combined hours of core, track, and electives must be at least forty-two credit hours. The electives are designed to enhance current skills, to fill gaps in substantive areas, or to develop an additional concentration. For example, students may take additional courses in Human Resources Management, Public Finance and Budgeting, Urban Planning, or Environmental Policy. Students in the Health Care Administration specialization may emphasize Public Health Management or Long-term Care Administration. Completion of the option in Long-term Care Administration can be used to fulfill the educational requirements for licensure of the State of Ohio Board of Examiners of Nursing Home Administrators.

Internship/Research

PAD 690 Internship
PAD 698 Research in Public Administration

Capstone Requirement

PAD 692 is a generalist public administration capstone course that provides a final common experience for MPA students. In this course, students integrate learning from the MPA core curriculum with professional practices encountered in public and nonprofit organizations. Students are expected to prepare and defend a capstone paper.

Off-Campus Locations

The Levin College of Urban Affairs offers MPA coursework in two additional locations: Youngstown State University and MetroHealth Medical Center.

The CSU/YSU MPA degree program allows students in Youngstown to complete some coursework from YSU via distance learning classes from CSU, web-based classes from CSU, and traditional YSU courses. Students receive an MPA degree conferred by Cleveland State.

MetroHealth employees and CSU students may complete many core courses and Health Care Administration specialization courses at MetroHealth Medical Center.

Students may also complete coursework toward the MPA degree at Chung-Ang University in Seoul, South Korea. Some courses are taught in English. Students who are interested in studying in Seoul should contact the Graduate Advisor and the MPA Program Director well in advance to plan a program of study.

More information on these off-campus opportunities is available on the MPA program Web site.

The 5-year BA+MPA Program

Through the BA+MPA program, students may complete a BA in Urban Studies and an Master of Public Administration through the Levin College of Urban Affairs in five years, instead of the six academic years normally required of full-time students. High performing undergraduate students may apply to the 5-year program during the third year of undergraduate study and, if accepted, complete MPA coursework during the fourth year and a transition term. Students may then complete all remaining MPA coursework in two semesters of full-time graduate study.

Admission and Requirements

In addition to meeting the admission requirements for the conventional MPA program, students applying to the 5-year BA+MPA program must have a cumulative GPA of 3.25 and submit two letters of recommendation from Cleveland State University faculty. Upon successful completion of the fourth year and transition term, students are awarded the BA in Urban Studies. In order to be admitted to the final year of the BA+MPA Program, students must complete the BA with a cumulative GPA of 3.0 and receive grades of B or better in designated coursework.

For more information and curriculum plans, please consult the Levin College Office of Student Services, at 216-687-3884.

The JD/MPA Program

The combined curriculum leading to the degrees of Juris Doctor and Master of Public Administration is designed to permit the student to complete both degrees in four years instead of the five years that would normally be required to complete the two degrees separately.

Entry into the Joint Degree Program can occur in one of two ways. Applicants who are not currently enrolled in either the JD or the MPA degree program must apply for admission to both the College of Graduate Studies and the College of Law concurrently and follow the normal procedures of the respective colleges. Application for admission must be specifically for the Joint Degree Program. Students who enroll in this manner spend their first year taking courses exclusively in the JD program and their second year taking courses exclusively in the MPA program. In the third and fourth years, students take courses in both degree programs. Applicants who are currently enrolled in either the JD or the MPA degree program must apply for admission to the other degree program prior to the completion of sixty credit hours in the JD program or twenty-eight credit hours in the MPA program. Students who enroll in this manner are advised as to how to schedule the remainder of their courses in the Joint Degree Program. Under no circumstances will a student be allowed to take more than eight years to complete the combined program.

The Joint Degree Program requires a total of four academic years. The Juris Doctor requirements are fulfilled by completion of eighty credit hours of work in the College of Law, including all required courses, and the transfer of ten credit hours from courses taken in the Master of Public Administration program. The Master of Public Administration requirements are fulfilled by completion of thirty-four to thirty-six credit hours of courses in the College of Urban Affairs, including all required courses, and the transfer of the equivalent of eight credit hours from courses taken in the College of Law. In order to ensure that the degree requirements of both programs are fully maintained, while at the same time permitting the saving of a full academic year, students who pursue the Joint Degree Program are not permitted to take courses outside either the College of Law or the Master of Public Administration program for credit toward either degree.

When a student graduates from both degrees together they are allowed to transfer ten credit hours toward their law degree. If they elect to receive the law degree first, only eight credits can be dual counted.

Submit College of Graduate Studies application materials to the Graduate Admissions Office. Contact the College of Law regarding law application procedures.

Ohio Certified Public Manager Program

The Ohio Certified Public Manager (OCPM) program is an accredited training program designed to enhance the skills of practicing public managers who work in state, county, regional, or local agencies of Ohio's governments. The first accredited CPM program was developed in Georgia in 1976. In 2007, 29 states, including Ohio, had accredited CPM programs, along with the federal government and the District of Columbia.

The OCPM program is housed in the Ohio Department of Administrative Services (DAS). The Levin College of Urban Affairs delivers the OCPM Program in the northeast region of the state, in partnership with the University of Akron, Kent State University, and Youngstown State University.

The Levin College's MPA faculty recognizes that the OCPM program is worthy of graduate public-administration credits. The College will award OCPM graduates entering the MPA Program with eight credit hours of elective course work. OCPM graduates applying to the MPA Program must provide documentation from DAS, showing they have successfully completed the entire OCPM program.

Master of

Public Health

Department of Health, Physical Education, Recreation and Dance

Physical Education Building, Room 228
(216) 687-4870
www.neoucom.edu/mph/index.php

Sheila Patterson, Chair and MPH Program Coordinator

Introduction

The Master of Public Health (MPH) at Cleveland State University is part of the Consortium of Eastern Ohio Master of Public Health (CEOMPH) program. The CEOMPH is a multidisciplinary, interdepartmental, and Inter institutional program that provides opportunities for graduate studies in public health. Although the MPH degree is awarded by Cleveland State University, the MPH program is partnership-based. The six partners are Cleveland State University, the Northeastern Ohio Universities College of Medicine (NEOUCOM), Youngstown State University, Kent State University, Ohio University, and the University of Akron. The program is accredited by the Council on Education for Public Health (CEPH).

The mission of the program is to enhance the health and well being of the community by providing an educational program that fosters collaboration among the participating academic institutions, students, public health practitioners, and the public health system. The program prepares graduates in the knowledge, skills, and analytic capabilities required to improve the health of diverse populations at the local, state, and national levels via community practice, research, and service.

Admission Information

In addition to meeting Cleveland State University College of Graduate Studies admission requirements, applicants must meet the following criteria:

1. Applicants must have successfully completed a college-level mathematics or statistics course, and a college social science or natural science course.
2. Applicants must have acceptable GRE scores within the last five years. The GRE requirements may be waived if the applicant has a professional degree (master's or doctorate) in a related area.
3. The TOEFL is required of applicants from countries where English is not the language of instruction in their college/university studies; the minimum required score is 550 for the paper-based examination and 213 for the computer based examination.

4.   Two years of work experience in a relevant field is highly recommended.

5.   The applicant must provide three letters of recommendation from individuals familiar with his or her academic or professional background. If the bachelor's degree was earned more than two years prior to application to the program, an applicant may submit letters of recommendation by supervisors from his or her place of employment. The letters should include an assessment of the applicant's work quality and ability to successfully complete a graduate degree.

The application deadline is January 15. Students are admitted fall semester only. Applicants must submit the special Eastern Ohio Universities Master of Public Health application form, a $35 non-refundable application fee, and all admission materials to the MPH Admissions Committee (see address below). The special application form is available at http://www.neoucom.edu/MPH/ . The MPH admissions committee reviews application materials and forwards files to the Cleveland State MPH Program Director. The Director submits files and admission recommendations to the Cleveland State Graduate Admissions Office. Applicants are encouraged to review the admission requirements on the MPH web site prior to submitting their application materials. Submit application materials to:
MPH Admissions Committee CEOUCOM, Division of Community Health Sciences, 4509 State Route 44, PO Box 95, Rootstown, OH 44272.

Degree Requirements

The curriculum consists of seven core courses that students take as a cohort. In addition, one grant project, a capstone project, a portfolio, and an exit presentation are required. The MPH is structured as a weekend program with the core courses scheduled on Saturdays from 9 a.m. to noon and from 1-4 p.m. Alternate scheduling will be considered to accommodate students with special circumstances.

Students may take the core courses at any one of the distance-learning classrooms at any one of the partner universities. Electives may be taken at any time during the program. Students may select electives from a list of approved courses offered by the partner universities. If the student is interested in an elective that is not on the approved list, an Elective Approval Form must be submitted along with a course syllabus for review by the NEOUMPH curriculum committee.

Students are assigned an advisor upon entering the program. The advisor offers guidance on choosing electives appropriate to the student's career goals and interests. Students must maintain a minimum grade-point average of 3.0 to remain in the program.

Total requirements for the degree:

42 credits

Core courses (27 credits)
  MPH 601 Public Health Concepts (3 credits)
  MPH 602 Social and Behavioral Sciences in Public Health (3 credits)

MPH 603 Epidemiology in Public Health (3 credits)
MPH 604 Biostatistics in Public Health (3 credits)
MPH 605 Health Services Administration in Public Health (3 credits)
MPH 606 Environmental Health Sciences in Public Health (3 credits)
MPH 608 Public Health Practice and Issues (3 credits)
MPH 696 Public Health Practicum (3-6 credits)
MPH 697 Public Health Capstone Project (3-6 credits)

Electives (15 credits)

Master of

Social Work

Joint Program with the University of Akron

School of Social Work

Chester Building 302
(216) 687-4560
http://www.csuohio.edu/class/socialwork/index.html

Maggie Jackson, Graduate Program Coordinator

The Program

The mission of the Joint MSW program is to prepare students for specialized, advanced-level, self-critical, accountable, and autonomous practice with oppressed, at-risk, and vulnerable populations. The program provides a rigorous intellectual base, an opportunity for effective skill development, and an educational perspective that views human diversity as desirable and enriching to society. Students are equipped with the knowledge, skills, and values appropriate to the social work profession, the conceptual base of professional social work, the broad-based research strategies of the field, and the various social work roles and intervention strategies used in social work practice. The student may enroll in the program on a full-time, part-time, or advanced-standing basis, if qualified.

Distance Learning

The program is delivered through distance-learning technology, which transmits live-action video signals between the two campuses. Students and instructors at the two locations see each other through television monitors and speak to each other through an associated audio system. Each campus has a dedicated classroom equipped with three fixed cameras; an overhead document camera to display print materials, opaque objects, and transparencies; one camera facing the instructor; and one camera facing the students to capture their questions, comments, and reactions. Classrooms are equipped with three television monitors, one of which is used to view the students at the remote location. The technology is designed for maximum participation by students and ease of operation by the instructor.

Faculty Research and Publications

The faculty members of the joint Master of Social Work program conduct applied and basic

research on a variety of major contemporary social issues, including drug abuse, aging populations, health and mental health, juvenile offenders, family and children issues, social work practice, social policy analysis, and community service. In the past few years, faculty members have authored a number of books and journal articles. The research has been supported by several large federal and foundation grants and a number of smaller state and local awards. Opportunities exist for student involvement in this work.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Careers in Social Work

Graduates of the joint Master of Social Work program hold a variety of positions in the public, private, and nonprofit sectors. The alumni roster includes directors of local agencies and other nonprofit organizations, as well as program planners and managers working in a broad spectrum of human service agencies.

Financial Assistance

A limited number of graduate assistantships and graduate tuition grants are available to qualified students. Interested students should contact the School of Social Work Program Director.

Admission Information

In addition to the College of Graduate Studies admission requirements at Cleveland State University and The University of Akron, the joint MSW program requires of all applicants:

1. An undergraduate major in social work or a related field;
2. A minimum grade-point average of 3.0 in social work and behavioral science courses taken prior to application for admission;
3. A minimum of eight courses in the social and behavioral sciences;
4. Three letters of reference;
5. An essay of three to five typed pages explaining:
   a. Why the student wants to be a social worker;
   b. Why a graduate degree is felt to be necessary to fulfill the applicant's personal or professional objectives;
   c. The applicant's views regarding diversity in society;
   d. A situation in which the student was the recipient/provider of help, emotionally, socially, or economically; and
   e. A description of the applicant's previous social work/human service work experience.

Note: No credit is given for work or life experience.

6. Notification, in writing, of:
   a. Preference for the day, evening, or advanced standing program;

   b. Preference for full-time or part-time program;

   c. Intended second-year Area of Concentration—Micro (Direct) Practice or Macro Practice; and

   d. Preference for advanced standing. To qualify for advanced standing, the applicant must have an undergraduate degree in Social Work, a 3.5 grade-point average in the social work major, and 3.2 accumulative GPA.

The application deadline is February 28. Submit materials to the Cleveland State University Graduate Admissions Office.

Students are expected to adhere to the program format under which they were admitted (day/evening, micro/macro, full-time/part-time, advanced standing). Any changes in this admission status will be based on the program's ability to accommodate the change. Changes must be requested before the beginning of the academic year.

Note: Applicants should be aware that having a prior felony conviction or prior sanctions for unprofessional conduct may impact future potential for obtaining field placements, social work employment, and licensure.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Testing-Out Policy

To assist students in avoiding duplication and redundancy of course content during the foundation year, the MSW program allows students the opportunity to test out of the following courses:

  SWK 622 Fundamentals of Social Work Research I
  SWK 631 Human Behavior and Social Environment: Small Systems
  SWK 646 Social Welfare Policy I

Students who wish to test out of one or more of the above courses must notify the MSW Program Director at least three weeks prior to the start of the semester in which the course is typically taught. The proficiency exam must be taken no later than the end of the first week of classes in that semester. There is no fee or penalty associated with taking exams. However, each exam may be taken only once. These exams are available in the school offices at both sites. Students are still required to complete a total of 60 graduate credit hours.

Transfer of Credit

Up to one-third of the total credits required for the MSW degree may be transferred from another accredited social work graduate program at an accredited college or university. All transfer credits must be at the "A" or "B" level. The credits must fall within the six-year time limit to complete degree requirements. Relevance of the credits will be determined by the MSW faculty. Credit hours must not have been applied toward a previous graduate degree. Transfer students

from other social work programs must submit fieldwork evaluation(s) and official transcripts at the time of application for admission. A maximum of nine graduate credit hours in the socio-behavioral sciences may be transferred as electives.

Phi Alpha National Social Work Honor Society

An MSW student at Cleveland State who has completed at least four courses with a GPA of 3.5 qualifies to join as a Life Member of the Phi Alpha National Social Work Honor Society, Delta Zeta chapter. Induction ceremonies are held twice a year. For more information, contact Professor Murali Nair, Faculty Advisor, at (216) 687-4570 or e-mail at m.nair@csuohio.edu, or visit the Web site at http://www.csuohio.edu/class/socialwork/phialpha/index.html.

Degree Requirements

Each student must complete a minimum of 60 graduate credits of approved required and elective courses in social work. There is no foreign language requirement. Students must complete an approved program of study, which includes the following required courses:

Full-time Program

First Year Professional Foundation

Fall Semester

SWK 601 Foundation Field Practicum I (3 credits) (fall semester only)
SWK 605 Social Work Practice with Small Systems (3 credits)
SWK 622 Fundamentals of Social Work Research I (3 credits)
SWK 631 Human Behavior and Social Environment: Small Systems (3 credits)
SWK 646 Social Welfare Policy I (3 credits)

Spring Semester

SWK 602 Foundation Field Practicum II (3 credits) (spring semester only)
SWK 606 Social Work Practice with Large Systems (3 credits)
SWK 623 Fundamentals of Social Work Research II (3 credits)
SWK 632 Human Behavior and Social Environment: Large Systems (3 credits)
SWK 647 Social Welfare Policy II (3 credits)

Second Year Concentrations

Fall Semester Micro (Direct) Practice

SWK 603 Advanced Field Practicum III (3 credits) (fall semester only)

SWK 607 Advanced Practice with Small Systems I (3 credits)
SWK 611 Dynamics of Racism and Discrimination (3 credits)
SWK 663 Psychopathology and Social Work (3 credits) One elective

Fall Semester Macro Practice

SWK 603 Advanced Field Practicum III (3 credits) (fall semester only)
SWK 611 Dynamics of Racism and Discrimination (3 credits)
SWK 672 Community Organization and Planning (3 credits)
SWK 674 Community, Economic Systems, and Political Analysis (3 credits)
One elective

Spring Semester Micro (Direct) Practice

SWK 604 Advanced Field Practicum IV (3 credits) (spring semester only)
SWK 608 Advanced Practice with Small Systems II (3 credits)
SWK 664 Direct Practice Research (3 credits) Two electives

Spring Semester Macro Practice

SWK 604 Advanced Field Practicum IV (3 credits) (spring semester only)
SWK 671 Social Work Administration (3 credits)
SWK 673 Strategies of Community Organization (3 credits)
SWK 675 Program Evaluation (3 credits) One elective

Four-Year Part-Time Program

Professional Foundation

First Year Fall Semester

SWK 631 Human Behavior and Social Environment: Small Systems (3 credits)
SWK 646 Social Welfare Policy I (3 credits)

First Year Spring Semester

SWK 632 Human Behavior and Social Environment: Large Systems (3 credits)
SWK 647 Social Welfare Policy II (3 credits)

Second Year Fall Semester

SWK 601 Foundation Field Practicum I (3 credits)
SWK 605 Social Work Practice with Small Systems (3 credits)
SWK 622 Fundamentals of Social Work Research I (3 credits)

Second Year Spring Semester

SWK 602 Foundation Field Practicum II (3 credits)
SWK 606 Social Work Practice with Large Systems (3 credits)
SWK 623 Fundamentals of Social Work Research II (3 credits)

Concentrations

Third Year Fall Semester
Micro I (Direct) Practice

SWK 611 Dynamics of Racism and Discrimination (3 credits)
SWK 663 Psychopathology and Social Work (3 credits)

Third Year Spring Semester
Micro (Direct) Practice

Two Electives

Third Year Fall Semester
Macro Practice

SWK 611 Dynamics of Racism and Discrimination (3 credits)
SWK 674 Community, Economic Systems, and Political Analysis (3 credits)

Third Year Spring Semester
Macro Practice

SWK 671 Social Work Administration (3 credits)
One Elective

Fourth Year Fall Semester
Micro (Direct) Practice

SWK 603 Advanced Field Practicum III (3 credits)
SWK 607 Advanced Practice with Small Systems I (3 credits)
SWK 664 Direct Practice Research (3 credits)

Fourth Year Spring Semester
Micro (Direct) Practice

SWK 604 Advanced Field Practicum IV (3 credits)
SWK 608 Advanced Practice with Small Systems II (3 credits)

One Elective

Fourth Year Fall Semester
Macro Practice

SWK 603 Advanced Field Practicum III (3 credits)
SWK 672 Community Organization and Planning (3 credits)
One Elective

Fourth Year Spring Semester
Macro Practice

SWK 604 Advanced Field Practicum IV (3 credits)
SWK 673 Strategies of Community Organization (3 credits)
SWK 675 Program Evaluation (3 credits)

Note: The scheduling of courses depends on the availability of rooms equipped with distance-education technology. The days and times courses are offered vary from year to year. Students enrolled in either the full-time or part-time program must be prepared to be flexible when the schedule of classes changes.

Micro Concentration

Refers to advanced social work practice with small client systems (individuals, families, and groups) and collateral persons, professionals, and organizations relevant to practice with these small systems. Micro field practicum assignments involve in-depth assessment of client systems and resources; application of intervention theories and skills; formulation of short-term and long-range goals; and evaluation of intervention outcomes.

Macro Concentration

Refers to advanced social work practice with large client systems (organizations, neighborhoods, and communities) and focuses on social change through advocacy and impacting the legislative process. Macro field practicum assignments may include developing methods of needs assessment; program development, identification of strategies and outcome measures; participation in grant preparation, design and/or implementation of programs and service-delivery systems; involvement in program evaluation; work with client groups for the purpose of community organizing and/or social/legislative policy change; and evaluation.

Master of Arts in

Sociology

Department of Sociology

Rhodes Tower 1721
(216) 687-4500
http://www.csuohio.edu/class/sociology/

Dr. Philip Manning, Chair
Dr. Wendy Regoeczi, Graduate Program Director

The Program

The Master of Arts in Sociology program provides advanced instruction in the essential knowledge of the discipline and in the major social research skills, both qualitative and quantitative. This training can be applied in a variety of workplaces, including academic, business, government, and agency settings. Alternatively, the master's program can serve as preparation for doctoral studies. All core courses and seminars are held during evening hours, weekdays except Friday.

Faculty Research and Publications

The faculty members of the Department of Sociology conduct applied and basic research on a variety of major contemporary social issues, including the aging population, urban and comparative education, doctor-patient interaction, social movement effectiveness, drug treatment effectiveness, youthful offenders, comparative legal institutions and history of policing, police decision-making, prisons, women and crime, social control, health care reform in the global South, immigration, sexual risk behavior, homelessness. job searches, therapeutic jurisprudence, homicide, and the social organization of work in science and technology. In the past few years, faculty members have authored a half dozen books and several dozen journal articles. This research has been supported by several large federal and foundation research grants and a number of smaller state and local awards. Opportunities exist for student involvement in this work, particularly since most of it is conducted in the Cleveland area.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Admission Information

All applicants must meet College of Graduate Studies requirements for admission. Students whose cumulative undergraduate grade-point average is below 3.0 may be required to submit acceptable scores on the Graduate Record Examination. An applicant may hold a bachelor's

degree in a field other than sociology, but there should be evidence of sociological preparation. An undergraduate course in statistics is essential. In some cases, students who lack a background in sociology and/or statistics may be granted conditional admission while course deficiencies are satisfied.

Students applying for admission must submit transcripts and two letters of reference, at least one of which should be from a professor who is from one of the social sciences and is familiar with the student's work.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Financial Assistance

Graduate assistantships and tuition grants are available to qualified students. Interested students should contact the Sociology Graduate Program Director.

Degree Requirements

In addition to meeting all University requirements, degree candidates must successfully complete a minimum of thirty-two credit hours, or eight courses. These must include three core courses, two graduate-level seminars, two electives, and a master's research paper.

Requirements

1. Core courses (12 credits):
   SOC 640 Sociological Theory (4 credits)
   SOC 650 Sociological Research Methods (4 credits)
   SOC 651 Sociological Statistics (4 credits)

2. Two graduate-level seminars (8 credits):
   SOC 661 Aging and the Life Course (4 credits)
   SOC 662 Deviance and Social Control (4 credits)
   SOC 663 Criminological Theory (4 credits)
   SOC 670 Gender and Society (4 credits)
   SOC 671 Social Demography (4 credits)
   SOC 680 Race and Ethnicity in American Society (4 credits)
   SOC 683 Sociological Analysis of Work and Economic Change (4 credits)
   SOC 684 Urban Social Change (4 credits)
3. Two electives (8 credits):
   Two courses from any Sociology 500- or 600-level offerings, or approved graduate-level courses from related social science and interdisciplinary social science departments.
4. Master's paper research (4 credits):
   SOC 698 Master's Research Paper (4 credits)

Degree Candidacy

Students in the graduate program are admitted to candidacy for the MA degree when they have successfully completed the core courses. Successful completion is accomplished by achieving a grade-point average of at least 3.0 for the core courses, with no grade lower than a B–.

Master of Science in

Software Engineering

An interdisciplinary program with the Department of Computer and Information Science administered by the Department of Electrical and Computer Engineering

Department of Electrical and Computer Engineering

Stilwell Hall 332
(216) 687-2589
http://www.csuohio.edu/engineering/academics/gradprograms.html

Fuqin Xiong, Chair, Electrical and Computer Engineering
Yongjian Fu, Graduate Program Co-Director
Nigamanth Sridhar, Graduate Program Co-Director

Department of Computer and Information Science

Ahuja Hall 344
(216) 687-4760
http://cis.csuohio.edu

Santosh Misra, Chair, Computer and Information Sciences

Introduction

The Master of Science in Software Engineering (MSSE) program is the first of its kind in Ohio. It is a joint, interdisciplinary program between the College of Engineering's Department of Electrical and Computer Engineering (ECE) and the College of Business Administration's Department of Computer and Information Science (CIS). The program is the successor to the Graduate Certificate Program in Software Engineering and is intended for both practicing professionals, as well as full-time students in the areas of software engineering, computer engineering, electrical engineering, computer science, or information management.

The program introduces students to current and best practices in the engineering of software systems. A distinguishing feature is its emphasis on the architecture, design, quality, management, and economics aspects of software engineering. Students take a project from start to completion, learning the requirements of specific deliverables and the development life cycle. Critical management issues, such as risk assessment, project planning, and market analysis, are also covered. The program exposes students to new technological developments in an advancing field and how to apply their knowledge in the workplace. Graduates meet the demands of industry

and address the needs of information technology professionals, in general, and software engineers, in particular.

The Electrical and Computer Engineering Department recently commissioned a new state-of-the-art Software Engineering instructional laboratory, fully equipped with hardware and software required to meet the needs of all courses in the curriculum. The department also maintains the Software Engineering Research Laboratory to support research. The lab is equipped with desktop computers and servers connected via a LAN. Students have the opportunity to work on cutting-edge research in Software Engineering.

Two major computer facilities are used by the Department of Computer and Information Science to support teaching and research: a networked laboratory of basic and advanced personal computers; and clusters of UNIX workstations, including HP Itanium, Sun Sparc/Ultra, SGI Indy/O2, IBM RS/6000, and Dell Linux workstations. These machines are connected to Fast Ethernet, ATM, and/or FDDI LANs. All laboratories are available to students for both course work and research. The networks are connected to the University fiber backbone which, in turn, is linked to national networks.

Faculty Research

The members of the Software Engineering faculty are engaged in research in several areas suitable for student theses and dissertations. These include software design, component-based software engineering, middleware systems, embedded software, data mining, mobile computing, fault-tolerant computing, computer and network security, peer-to-peer and grid computing, distributed computing, operating systems, languages, algorithm design and analysis, computer graphics and computational geometry, performance evaluation, object-oriented programming, software metrics, program analysis, multimedia computing, and bioinformatics. Results of research in these areas are published regularly in referred journals, such as transactions of IEEE, and are presented at scholarly conferences and symposia.

Faculty members from the Department of Electrical and Computer Engineering and the Department of Computer and Information Science participate in the program. Current faculty information can be located on the Cleveland State University Faculty Profile page:

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Financial Assistance

The Department of Electrical and Computer Engineering offers a number of research and teaching assistantships and graduate tuition grants. In addition, internships in local industry are available.

Admission Information

Admission to the program requires a minimum undergraduate cumulative grade-point average of 3.0. The Graduate Record Examination (GRE) and the Test of English as a Foreign Language (TOEFL) are required for all international students.

The GRE is also required if one or more of the following conditions is true:

- The undergraduate degree was awarded by a college or university outside of the United States or Canada, or by a Canadian institution not accredited by the Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers.
- An unaccredited college or university awarded the undergraduate degree.
- The undergraduate degree was in a discipline unrelated to software engineering, electrical engineering, computer engineering, computer science, or information management.
- The student's undergraduate cumulative grade-point average is below 3.0.
- The year of the baccalaureate degree precedes the date of application to the College of Graduate Studies by more than six years.

Applicants with a bachelor's degree in computer science and computer engineering are encouraged to apply. All applicants must demonstrate prerequisite knowledge in the following areas:

- Data structures and algorithms
- Programming languages
- Databases
- Discrete mathematics
- Probability and statistics
- Computer organization
- Computer networks
- Operating systems

Applicants in related fields will also be considered for admission, but they may be required to take additional prerequisite courses. Credits earned for prerequisite courses cannot be used to meet the MSSE requirements.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

Students in the MSSE program may elect a thesis option or a non-thesis option. All students, and particularly those intending to pursue a doctoral degree, are encouraged to select the thesis option.

1. All students
The MSSE program is planned around a core of required topics and a number of technical electives. All students must complete the core courses listed below.

2. Thesis option students

Students are required to take 28 credit hours of course work and 6 hours of thesis, for a total of 34 credit hours.

3. Non-thesis option students

Students are required to take 32 credit hours of course work and 4 credit hours of Software Engineering Project (EEC 626), for a total of 36 credit hours.

Core Courses

EEC 521 Software Engineering (4 credits)
EEC 623 Software Quality Assurance (4 credits)
CIS 634 Object-Oriented Software Engineering (4 credits)
CIS 635 Software Engineering Metrics, Economics, and Management (4 credits)

Elective Courses

CIS 650 Compiler Design (3 credits)
CIS 675 Information Security (3 credits)
EEC 517 Embedded Systems (4 credits)
EEC 522 Modeling and Analysis in Software Systems (4 credits)
EEC 525 Data Mining (4 credits)
EEC 530 Digital Signal Processing (4 credits)
EEC 581 Computer Architecture (4 credits)
EEC 623 Software Quality Assurance (4 credits)
EEC 624 Software Testing (4 credits)
EEC 625 Software Design and Architecture (4 credits)
EEC 626 Software Engineering Project (4 credits)
EEC 681 Distributed Computing Systems (4 credits)
EEC 684 Parallel Processing Systems (4 credits)
EEC 687 Mobile Networks (4 credits)
EEC 692 Special Topics in Software Engineering (4 credits)
EEC 695 Individual Problems In Software Engineering (1-4 credits)
EEC 699 Master's Thesis (1-9 credits)

Only one of the following courses is permitted to count towards degree requirements for the MSSE program:

- CIS 620 Comparative Operating Systems Interfaces (4 credits)
- CIS 630 Enterprise Application Development (4 credits)

Exit Requirements

For thesis option students, acceptance of the thesis by the thesis committee and passing an oral defense of the thesis are required. Students must follow the Thesis and Dissertation Format

Guidelines, available from the College of Graduate Studies.

For non-thesis option students, successful completion of EEC 626 Software Engineering Project is required.

For further information about the MS in Software Engineering program, please contact the Department of Electrical and Computer Engineering at (216) 687-2589.

Master of Arts in

Spanish

Department of Modern Languages

Rhodes Tower 1619
(216) 687-4645
http://www.csuohio.edu/class/modernlanguages/Grad/gradprog.html
Tama Engelking, Department of Modern Languages Chair
Antonio Medina Rivera, Graduate Program Director

Introduction

The Master of Arts in Spanish program provides advanced study in Hispanic language, literature, culture, and linguistics to individuals preparing for, or involved in, a career in teaching, or in other professional programs, such as law and international business. The program meets the needs of students seeking a terminal master's degree and those who are preparing to enter a Ph.D. program, as well as individuals studying for personal enrichment or professional advancement.

The Master of Arts in Spanish degree program is housed in the Department of Modern Languages. The department also offers courses in support of the Master of Education degree with a specialization in Curriculum and Instruction in French, German, and Spanish. Thus, students have the opportunity to be part of a larger group of graduate students and to take related courses, when appropriate, in other language or focus areas.

The program is organized to support both full-time and part-time students, and particularly those holding teaching positions. Courses are offered throughout the academic year and during the summer. Study abroad programs in the summer allow full-time immersion in a Hispanic culture and intensive language study.

The Master of Arts in Spanish program has the following unique features:
  1.   A personalized program plan allows students to specialize in an area of interest and makes them consciously aware of their course work as a coherent whole.
  2.   The study abroad requirement obliges students to relate to native speakers in their own environment and to apply learning in a practical manner.
  3.   The option to include four hours outside of the Spanish area allows students to view their specialized training in a broader humanistic context. This reflects both national trends and the needs of students, especially those who are teachers and will continue in that career.
  4.   The inclusion of oral proficiency standards relates to rising enrollments in foreign language study at all levels. In addition, reassessment by the American Council on the Teaching of Foreign Languages (ACTFL) and professional associations devoted to specific languages, as well as recent trends in the general field of foreign language education, have made this inclusion timely.

Faculty Research and Publications

All members of the graduate faculty are active scholars who participate in regional, national, and international associations. In recent years, members of the faculty have made significant contributions by authoring books, book chapters, and articles in a wide variety of scholarly fields.

The members of the graduate faculty publish extensively in the areas of sociolinguistics, applied linguistics, Arabic influence and presence in the Hispanic World, gender studies, Latin-American and Caribbean literature with special emphasis on women writers, Mexican and contemporary Peninsular poetry and prose. Faculty members also have published on foreign-language education, especially the teaching of foreign literatures and language acquisition.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Financial Assistance

A limited number of graduate assistantships and graduate tuition waivers are provided each year to qualified students. These students may assist in course instruction or other activities as assigned. Students interested in applying for an assistantship or graduate-tuition grant should write to the MA in Spanish Graduate Director, when applying to the program. Reference should be made to prior teaching experience and to the anticipated effect of an assistantship or graduate-tuition grant on the student's plan of graduate study. An undergraduate grade-point average of at least 3.0 is required. Students who are selected as teaching assistants must take the graduate teaching methods course (SPN 631) as early as possible in their program as part of their supervised experience.

Career Information

Graduates of the Master of Arts in Spanish program typically continue to be teachers in local secondary schools, teach at the community-college level, or enter Ph.D. programs in Spanish. Other careers are diverse, including government service, international business, librarian-ship, media, and management fields.

Admission Information

In addition to College of Graduate Studies requirements for admission, applicants must meet the following criteria:

1. An undergraduate major in Spanish, or the equivalent, as determined by the Graduate Studies Committee of the Department of Modern Languages. Students without an undergraduate major in Spanish may be admitted under special status and are required to take prescribed courses at either the undergraduate or the graduate level to ensure adequate preparation. Undergraduate courses taken to remediate deficiencies do not count toward graduate degree

requirements. Graduate work may begin for any area as soon as appropriate course work or experience qualifies the student.

   2.   A speaking ability in Spanish equivalent to "intermediate high" level guidelines established by the ACTFL. Contact the Department of Modern Languages to arrange for an oral proficiency interview.

   3.   Applicants must submit a personal essay in Spanish. The essay must outline the applicant's professional goals and how they relate to the program. The essay is considered both an example of the applicant's writing ability and an expression of the applicant's professional goals.

   4.   Each applicant must submit a sample of work in Spanish. It may be a test, a significant homework assignment, or a term paper.

After admission to the program, students may request transfer of a maximum of eight hours of graduate work completed in appropriate courses at other institutions. Transfer credit usually is not granted for courses taken more than four years prior to admittance to the program. Transfer credit is subject to approval by the Graduate Program Director and the Chair of the Department of Modern Languages. Transfer credit generally will not count toward meeting the core requirements of the program.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

In addition to the graduation requirements of the College of Graduate Studies, a candidate for the Master of Arts degree in Spanish must complete a program of study for a total of thirty-two credit hours at the 500-level or above with a grade-point average of at least 3.0. The student works with an advisor to develop an appropriate plan of study that must be reviewed and approved by the Graduate Program Director and the Chair of the Department of Modern Languages. The program plan should be submitted for approval as early as feasible after the student has completed eight hours of acceptable graduate work. Upon approval of the Plan of Study, the student becomes a candidate for the MA degree. The program must include the following components:

   1.   The core requirement composed of a course in research methods and one course each in literature, language, and culture (the three traditional divisions within the field of Hispanic studies).

   2.   A field of concentration of at least twelve credit hours constituting a coherent and focused program of study developed by the student in consultation with an advisor. Distribution courses may be applied to the field of concentration as appropriate.

   3.   A maximum of four hours of graduate-level course work outside of the Spanish area may be applied toward the MA degree with the approval of the Graduate Studies Committee in the Department of Modern Languages. This is not an option when a student has chosen to transfer credit from another institution or when the student has chosen to write a thesis.

   4.   Students are required to participate in one of the Department's Summer Study Abroad Programs, which are offered annually in Mexico, and bi-annually in Spain or Costa Rica.. Cleveland State has formal programs for this purpose that provide University oversight, faculty, and courses in combination with the work completed in these programs abroad. Student aid and both internal and external scholarship funding may be available. The credit earned in these

programs applies directly toward the degree. Study abroad undertaken on an independent basis applies under the transfer credit provision. Students with appropriate foreign experience and achievement at the "advanced" level on the ACTFL oral proficiency test may petition to be exempted from this requirement. Students for whom the study abroad experience would create a hardship may petition to develop an alternative experience in consultation with their advisors. Students can participate in no more than two Summer Study Abroad Programs for credit toward the degree. A minimum of three courses/ twelve credits (including SPN 501) need to be taken in a regular CSU semester in which the students will have the opportunity to write three research papers for our regular Cleveland State faculty.

   5.   Demonstrated speaking ability in Spanish equivalent to ACTFL "advanced" proficiency is an exit requirement.

   6.   The MA program in Spanish does not accept more than one B- in the student program of study. Students obtaining more than one B- will need to take additional courses to cover for the deficiency, until completing thirty-two credits with no more than one B-.

Program and Course Approval

The MLA Spanish faculty closely monitor the academic quality of the programs in which students enroll. Students are required to meet with both the program's director and their graduate advisor to discuss the courses they wish to take to ensure that they will receive credit on their return. The Spanish faculty may impose additional requirements for credit to be granted and will evaluate credits upon return from study abroad.

Exit Requirements

Each student must pass a final oral examination. In addition, each student must pass a written examination, covering three fields of the program reading list or must take two additional courses, which provide additional depth and breadth to the student's area(s) of concentration.

For the written examinations, students are responsible for readings in three fields to be chosen from the fifteen that comprise the areas of Peninsular Civilization and Culture, Latin-American Civilization, Language and Linguistic Studies, Peninsular Literature, and Latin-American Literature.

With the approval of the departmental Graduate Committee, students may elect to write a thesis instead of taking eight hours of course work.

Master of Arts in

Speech Pathology and Audiology

Department of Health Sciences Speech and Hearing Program

Main Classroom 430
(216) 687-3807
http://www.csuohio.edu/sciences/dept/healthsciences/graduate/index.html

John Bazyk, Chair, Department of Health Sciences
Monica Gordon Pershey, Speech Pathology and Audiology Graduate Program Director

Introduction

The Master of Arts degree program in Speech Pathology and Audiology provides students with the necessary clinical and academic expertise to obtain employment in clinical and research positions. The program maintains an active, nationally accredited speech-language and hearing clinic and has student externship liaisons with many hospitals, clinics, and schools in the Greater Cleveland area. The graduate academic program holds accreditation from the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA).

Faculty Research and Publications

Faculty members are active in a wide variety of research areas and their research is published in international and national scholarly journals. The program features state-of-the-art facilities for research, instruction, and service delivery. Graduate students are encouraged to pursue independent research by completing a master's thesis.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Financial Assistance

The program offers graduate research and teaching assistantships funded by University and grant support. Any student interested in applying for a graduate assistantship should complete the appropriate portion of the Application for Graduate Admission. Please refer to the section on Expenses and Financial Aid: Graduate Assistantships in this Catalog.

Career Information

Graduates of the program meet the requirements for ASHA certification, state of Ohio licensure,

and, if opted for, the Ohio Department of Education teaching license. Graduates hold positions in public schools, hospitals, community clinics, and long-term care facilities. Increasingly, experienced speech-language pathologists are establishing themselves as private practitioners. Program graduates also may elect to pursue a doctorate at another university to seek employment at a university or research facility.

Admission Information

Admittance into the program is limited by the capacity of the program to provide supervised clinical experience in multiple settings. Because admission is selective, not all applicants who meet the minimum requirements for College of Graduate Studies admission can be accepted.

Applicants for admission are required to submit the results of the Graduate Record Examination (GRE) or Miller Analogies Test (MAT) and two letters of recommendation from individuals who are familiar with their undergraduate academic and/or clinical performance. A personal statement of interest that describes the applicant's capabilities and career goals must be included.

Although an undergraduate major in communication disorders is not required for admission to the program, students whose major is not communication disorders must complete the following six undergraduate courses or their equivalents before admission is possible. These courses are SPH 228— Phonetics, SPH 349 – Speech and Language Development for Majors, SPH 231— Introduction to Communication Disorders, SPH 232—Introduction to Audiology, SPH 353— Clinical Methods in Communication Disorders, and SPH 351—Anatomy and Physiology of the Speech and Hearing Mechanism. Two additional undergraduate courses or their equivalents are required for ASHA certification and must be completed by master's candidates who have not previously taken these courses. These are SPH 485—Speech and Hearing Science and SPH 481 —Aural Rehabilitation.

The application deadline is February 1. Submit the Application for Graduate Admission, the $30 application fee, and all admission materials (official transcripts, official test scores, letters of recommendation, and personal statement) to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

1. Students must earn a 3.0 grade-point average or higher in all required graduate courses, including any required graduate course(s) taken as a non-degree student.
2. Students must fulfill the course of study approved by their advisor
3. Students must complete a minimum 375 of supervised clinical hours of direct client/patient contact plus 25 hours of clinic observation.
4. Students must successfully complete the following courses:
   SPH 510 Fundamentals of Research and Design (3 credits)

SPH 522 Diagnostic Methods (3 credits)
SPH 524 Motor Speech Disorders/Dysphagia (3 credits)
SPH 525 Augmentative Communication (2 credits) or SPH 526 Medical Speech-Language Pathology (2 credits)
SPH 532 Voice and Resonance Disorders (4 credits)
SPH 533 Neurogenic Communication Disorders (4 credits)
SPH 537 Fluency Disorders (3 credits)
SPH 539 Advanced Practicum in Speech-Language Pathology (1-6 credits)
SPH 561 Phonological and Articulatory Disorders (3 credits)
SPH 562 Advanced Language Disorders (4 credits)
SPH 564 Behavioral Neurology for Communication Disorders (3 credits)
SPH 586 Practicum in Audiology (1 credit) or SPH 589 Practicum in Aural Rehabilitation (1 credit)
SPH 591 Comprehensive Examination (3 credits), or SPH 599 Thesis (1-3 credits)

5. Students must successfully complete either a comprehensive examination or a master's thesis. A maximum of four credits may be counted toward the master's thesis. (See Exit Requirements)

6. Students seeking Ohio teaching license as a public school speech-and-language pathologist must enroll in student teaching during their graduate study program. Approval for the Ohio teaching license will be withheld until the successful completion of the master's program. (See EST 575 Practicum in Speech and Hearing Therapy, which is offered by the College of Education.) Two courses SPH 435/535 - Organization and Administration of a Public School Speech and Hearing Program, and SPH 438/594—Dialect Difference in the Schools) must also be completed.

Exit Requirements

The program offers both a thesis and a comprehensive examination option. Students interested in pursuing a thesis must first complete SPH 596 Directed Study with a graduate faculty member who is interested in directing the thesis. The thesis can begin upon completion of at least eight credit hours of graduate study plus the directed study preparatory to the thesis. The student must have a minimum 3.3 grade-point average in order to obtain approval for the thesis proposal. The student selects a committee that is composed of at least three graduate faculty members, including the thesis director and at least two other members. After approval of the student's thesis proposal, he or she carries out the study with the support of the thesis committee. Upon acceptance of the completed thesis by the committee, the student is awarded the Master of Arts degree, provided all other academic and clinical requirements have been met.

Students electing to write a comprehensive examination in place of a thesis must have successfully completed at least 24 credit hours of graduate study with a minimum 3.0 grade-point average. The comprehensive examination consists of essay questions. Students must register for SPH 591 Comprehensive Examination with the permission of their advisor.

Curriculum Structure

In planning a curriculum leading to a Master of Arts degree in Speech Pathology and Audiology, a student must satisfy the specific requirements established by the American Speech-Language-Hearing Association (ASHA). These requirements partially fulfill the criteria leading toward the Certificate of Clinical Competence (CCC) in speech-language pathology. In addition, a student must satisfy the specific requirements established by the State of Ohio Board of Speech Pathology and Audiology for State of Ohio Licensing in Speech-Language Pathology. Students must meet with their assigned advisors to ensure that all clinical and academic requirements for national certification and state licensure are fulfilled by the time they plan to complete their program of study.

Specific ASHA Guidelines

1. Students must earn at least 75 credit hours that reflect a well-integrated program of study regarding:
   a. biological/physical sciences and mathematics (6 credits);
   b behavioral and/or social sciences, including human behavior and communication (6 credits); and
   c. the nature, prevention, evaluation, and treatment of speech, language, hearing, and related disorders (15 credits related to:
      1) the anatomic and physiologic bases;
      2) the physical and psychophysical bases; and
      3) the linguistic and psycholoinguistic aspects)
   All areas of academic course work must address issues pertaining to human development and behavior across the life span and for culturally diverse populations. These 75 credit hours reflect the 41 credits required for the Master of Arts in Speech Pathology and Audiology plus relevant coursework taken at the bachelor and post-baccalaureate levels.
2. The student must earn at least 41 credit hours in courses that concern the nature, prevention, evaluation, and treatment of speech, language, and hearing disorders. In accordance with the Council on Academic Accreditation Standards, students must demonstrate all clinical competencies as defined by the program.
3. Students must complete at least 25 clinical clock hours of supervised observation prior to beginning the initial clinical practicum. All supervision must be provided by an individual who holds a Certificate of Clinical Competence in the appropriate area of practice.
4. The student must submit evidence of the completion of a minimum of 400 supervised clinical clock hours of which at least 375 hours must be in direct client/patient contact. The program requires that students whose major is speech-language pathology must have completed the following supervised clinical hours at a minimum of three practicum sites:
   a. 20 clinical hours each in the evaluation of speech disorders in children and speech disorders in adults;
   b. 20 clinical hours each in the evaluation of language disorders in children and language disorders in adults;
   c. 20 clinical hours each in the treatment of speech disorders in children and speech disorders in adults;
   d. 20 clinical hours each in the treatment of language disorders in children and language disorders in adults;

e.   20 clinical hours in audiology with experience in both screening and aural rehabilitation.
5. Students must successfully complete either a comprehensive examination or a master's thesis. A maximum of four credits may be counted toward the master's thesis. (See Exit Requirements)

Students must demonstrate clinical competencies across the life span as indicated by ASHA in the following "big nine" areas: Articulation, Fluency, Voice and Resonance, Receptive and Expressive Language, Hearing, Swallowing, Cognitive Aspects of Communication, Social Aspects of Communication, and Communication Modalities/Augmentative/Alternative Communication Systems.

Master of

Urban Planning, Design, and Development

Maxine Goodman Levin College of Urban Affairs

Urban Affairs 205
(216) 687-2136
Additional information can be found at:
http://urban.csuohio.edu/academics/graduate/mupdd/

Dr. W. Dennis Keating, Graduate Program Director

Areas of Study

Economic Development *
Environmental Sustainability
Geographic Information Systems (GIS) *
Historic Preservation
Housing and Neighborhood Development
Real Estate Development and Finance *

*Students who wish to receive the corresponding Certificate in a specialization area should refer to the individual Certificate Program listings in this catalog for certificate requirements.

Accreditation

The Masters of Urban Planning, Design, and Development program is accredited by the Planning Accredition Board

Introduction

The Master of Urban Planning, Design, and Development (MUPDD) program integrates planning, design, and development into one course of study. Urban planning, urban design, and urban real estate development are featured components of the planning core curriculum. The course of study focuses on the theory, skills, and practical experience needed for the transformation and revitalization of cities and the regions in which they are located, particularly industrialized and post-industrial areas.
The Master of Urban Planning, Design, and Development program is committed to:
   • Educate students to become thoughtful urban planning generalists with distinctive technical competence in an area of practice, who can positively affect the built urban environment and the

well-being of individuals in restructuring urban regions, leading to sustainable, livable communities.

- Offer a broad educational experience to meet the needs of students and the planning profession.
- Provide students with an opportunity to develop knowledge in a substantive planning field.
- Make the MUPDD program accessible, through its curriculum delivery methods, to students in Northeast Ohio and beyond.
- Provide a high-quality faculty with adequate expertise, resources and numbers to meet teaching and advising needs of the program.
- Support a faculty engaged in empirical, applied, and reflective scholarship that addresses key issues and challenges in the planning profession.
- Maintain, enhance, and support a faculty engaged in quality teaching and public service.
- Achieve a diverse faculty reflective of the citizenry of Northeast Ohio, including its urban core areas, and the student body in the program.
- Recruit, retain, and place a high-caliber and diverse student body prepared for professional practice in planning.
- Provide quality student support services to facilitate student achievement and efficient administration of the program.
- Seek student participation in fair, inclusive, and autonomous program administration and assessment.
- Improve community knowledge of the value of planning as a profession and of the MUPDD program and its' resources.
- Facilitate and support a strong relationship and interaction with the professional planning community in the state and region.
- Train new planners in the latest techniques and theories and to upgrade the skills of practicing planners. The program is structured to accommodate both full-time and part-time students. Most required courses are offered in the evenings, with some courses offered during summer sessions and weekends.

Career Opportunities

The MUPDD program provides advanced training for recent college graduates and incumbent professionals. This graduate-level training in urban planning offers students the opportunity to pursue and advance careers in city or regional planning, housing and neighborhood development, real estate finance and development, economic development, environmental sustainability, and geographic information systems (GIS). Employment opportunities for planners exist in the public, private, and nonprofit sectors.

The Levin College, through the Department of Urban Studies, the Office of Student Services, and faculty provides a variety of services related to career planning to help students and graduates find employment related to their program of study. Current job postings are maintained in the Office of Student Services and on the College Web site.

Cleveland State's Career Services Center assists students with resume writing, interview preparation, co-op/internships, networking and other job search areas. Twice a year, CSU hosts

the largest Career Fair in Northern Ohio. In addition, for those interested in government and the public sector, Career Services hosts a Government Career Fair every spring creating an ideal opportunity for students to connect with potential government employers. (See the section on Campus Services and Programs: Career Services of this catalog).

Admission Information

Applicants to the Master of Urban Planning, Design, and Development Program must meet the minimum requirements established by the College of Graduate Studies and the MUPDD program faculty:

1. A minimum undergraduate grade-point average of 3.0, on a degree posted transcript.
2. Graduate Record Examination (GRE) scores, with an average Verbal and Quantitative score at the 50th percentile, and an Analytical Writing score of at least 4.0. Students with a graduate degree from an accredited college or university are exempted from this requirement. Other standardized admission examinations may be substituted at the discretion of the Program Director.
3.   Two letters of recommendation, using the Recommendation Form for Graduate Admission (available online at http://www.csuohio.edu/gradcollege/admissions/pdf/recommend.pdf).
4. Non-native English speakers who do not have an earned bachelor's degree or higher from an accredited U.S. institution must demonstrate proof of English-language proficiency as indicated in under "Admission Requirements for International Students and Permanent Residents" in this catalog.

You can apply for admission now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Types of Admission

The academic status of a graduate degree-seeking applicant is determined after a review of admission credentials. Graduate Program Committees, in concurrence with the Office of Graduate Admissions, may recommend admission of applicants as regular or conditional graduate students. Please refer to the Admission to the College of Graduate Studies section of this catalog for information on admission categories.

Transfer Credit

Upon satisfactory completion of 12 or more credit hours of graduate coursework at Cleveland State University, degree-seeking students may transfer up to 10 credit hours from an accredited college or university. Transfer credit is subject to Program Director approval, and must meet all University requirements for transfer credit (please refer to Academic Regulations).

All credits requested for transfer must carry a letter grade of A, A-, B+, or B in graduate courses.

No S/F graded courses may be transferred. Students must follow all other graduate college regulations.

The JD/MUPDD Program

The combined curriculum leading to the degrees of Juris Doctor and Master of Urban Planning, Design, and Development is designed to permit the student to complete both degrees over four years instead of the five years that would normally be required to complete the two degrees separately.

Entry into the Dual Degree Program can occur in one of two ways. Applicants who are not currently enrolled in either the JD or the MUPDD degree program must apply for admission to both the College of Graduate Studies and the College of Law concurrently and follow the normal procedures of the respective colleges. Application for admission must be specifically for the Dual Degree Program. Students who enroll in this manner spend their first year taking courses exclusively in the JD program and their second year taking courses exclusively in the MUPDD program. In the third and fourth years, students take courses in both degree programs. Applicants who are currently enrolled in either the JD or the MUPDD program must apply for admission to the other degree program, prior to the completion of sixty credit hours in the JD program or twenty-eight credit hours in the MUPDD program. Students who enroll in this manner are advised as to how to schedule the remainder of their courses in the Dual Degree Program. Under no circumstances will a student be allowed to take more than eight years to complete the combined program.

The Dual Degree Program requires four academic years. The Juris Doctor requirements are fulfilled by completion of eighty credit hours of work in the College of Law, including all required courses, and the transfer of ten credit hours from courses taken in the MUPDD program. The Master of Urban Planning, Design, and Development requirements are fulfilled by completion of forty credit hours of courses in the College of Urban Affairs, including all required courses, and the transfer of the equivalent of eight credit hours from courses taken in the College of Law. In order to ensure that the degree requirements of both programs are fully maintained, while at the same time permitting the saving of a full academic year, students who pursue the joint degree are not permitted to take courses outside either the College of Law or the Master of Urban Planning, Design, and Development program for credit toward either degree.

When a student graduates from both degrees together they are allowed to transfer ten credit hours toward their law degree. If they elect to receive the law degree first, only eight credits can be dual counted.

Submit College of Graduate Studies application materials to the Graduate Admissions Office. Contact the College of Law regarding law admission procedures.

Financial Assistance

The Levin College provides graduate assistantships, tuition grants, and scholarships on a competitive basis. Although the deadline for receipt of graduate assistantship applications is

March 1, fullest consideration is given to applicants who have submitted all application materials for their degree program by February 1. Additional information is available at: http://urban.csuohio.edu/students/financing.html

Degree Requirements

The Master of Urban Planning, Design, and Development program requires a minimum of forty-eight credit hours for degree completion. Students must meet all MUPDD curriculum requirements and must have a 3.0 or better grade-point average in order to graduate.

The planning core consists of eight courses (thirty-two credits); leaving four courses (sixteen credits). These four courses can be used as general electives or can be applied to an area of specialization. Six specialization fields are offered, each of which requires three or more courses to complete. An exit project or thesis is not a requirement, but may be chosen as an elective.

Core Courses

The required core courses (32 credit hours) for the MUPDD degree consists of the following:

PDD 601 Applied Quantitative Reasoning I* (4 credits)
PDD 603 Public Finance and Economics (4 credits)
PDD 605 Urban Spatial Structures (4 credits)
PDD 607 Introduction to Urban Planning (4 credits)
PDD 608 Urban Design Seminar (4 credits)
PDD 609 Planning Law (4 credits)
PDD 610 Urban Development Process/Market Analysis (4 credits)
PDD 611 Planning Studio (4 credits)

*Prerequisite is PDD 504 Fundamentals of Applied Reasoning or testing out of PDD 504

Specializations and Electives

Students may complete an area of specialization (16 credit hours) to be chosen in consultation with their advisor. Areas of specialization are: Economic Development, Environmental Sustainability, Historic Preservation, Housing and Neighborhood Development, Real Estate Development and Finance, and Geographic Information Systems (GIS). Specializations consist of required courses and electives. Students should see their advisor for specific curriculum plans. Or, students may also choose the generalist track, selecting 16 credit hours from concentrations or electives.

Electives are designed to enhance current skills or fill gaps in substantive areas. Students are encouraged to take advantage of special topics courses taught by Levin College faculty.

Bolded type indicates required courses in a specialization area.

ECONOMIC DEVELOPMENT

Specialization*:

PDD 622 **Economic Development Policy (4 credits)**
PDD 626 **Workforce Development (4 credits)**
PDD 615 Economic Development and Budgetary Policy (4 credits)
PDD 620 Economic Development: Plans and Strategies (4 credits)
PDD 621 Local Labor Market Analysis (4 credits)
PDD 623 Urban Development Finance and Applied Project (4 credits)
*Students who wish to receive the corresponding Certificate in this specialization area should refer to the individual Certificate Program listings in this catalog for certificate requirements.

ENVIRONMENTAL SUSTAINABILITY

Specialization:

PDD 553 **Environmental Planning I (4 credits) - or**
PDD 653 **Environmental Planning II (4 credits)**
PDD 550 Environment and Human Affairs (4 credits)
PDD 551 Environmental Finance and Capital Budgeting (4 credits)
PDD 652 Environmental Policy and Administration (4 credits)

GEOGRAPHIC INFORMATION SYSTEMS

(GIS) Specialization*:

PDD 642 Introduction to Geographic Information Systems (GIS)** (4 credits)
PDD 643 Advanced Geographic Information Systems (GIS)*** (4 credits)
PDD 644 GIS Capstone Seminar (4 credits)

*Students who wish to receive the corresponding Certificate in this specialization area should refer to the individual Certificate Program listings in this catalog for certificate requirements.
**Prerequisite is PDD 504 Fundamentals of Applied Reasoning
***Prerequisite is PDD 642 Introduction to Geographic Information Systems (GIS)

HISTORIC PRESERVATION Specialization:

PDD 576 **Historic Preservation (4 credits)**
HIS 504 U. S. Urban History (4 credits)
PDD 510 Proposal Writing and Program Development (4 credits)
PDD 578 Sacred Landmarks (4 credits)
PDD 623 Urban Development Finance and Applied Project (4 credits)
PDD 660 Neighborhood Planning and Development (4 credits)
PDD 693 Special Topics in Urban Planning, Design, and Development (4 credits)

PDD 698 Exit Project (4 credits)

HOUSING AND NEIGHBORHOOD
DEVELOPMENT Specialization:

PDD 563 Housing Analysis (4 credits)
PDD 623 Urban Development Finance (4 credits)*
PDD 660 Neighborhood Planning and Development (4 credits)
PDD 661 Legal Developments in Housing (4 credits)
PDD 662 Urban Housing Policy (4 credits)
PDD 664 Neighborhood Development (4 credits)

*Prerequisite is PDD 603 Public Finance and Economics and PDD 610 Development Process/
Market Analysis

REAL ESTATE DEVELOPMENT AND
FINANCE Specialization*:

FIN 610 **Real Estate Finance (4 credits)**
FIN 612 **Real Estate Investment (4 credits)**
PDD 623 **Urban Development Finance and Applied Project (4 credits)**

*Students who wish to receive the corresponding Certificate in this specialization area should refer
to the individual Certificate Program listings in this catalog for certificate requirements.

ADDITIONAL ELECTIVES:

PDD 504 Fundamentals of Applied Reasoning (4 credits)
PDD 510 Proposal Writing and Program Development (4 credits)
PDD 572 Negotiation and Conflict Management (4 credits)
PDD 574 Washington Seminar (4 credits)
PDD 576 Historic Preservation (4 credits)
PDD 577 Regional Issues (4 credits)
PDD 578 Sacred Landmarks (4 credits)
PDD 602 Applied Quantitative Reasoning II (4 credits)
PDD 606 Evolution of Human Settlements (4 credits)
PDD 616 Systems and Processes of Policy Development (4 credits)
PDD 690 Urban Internship (1 - 8 credits)
PDD 693 Special Topics in Urban Planning, Design, and Development (1 - 4 credits)
PDD 696 Individual Research (1 - 8 credits)
PDD 697 Readings in Urban Problems (1 - 8 credits)
PDD 698 Exit Project (4 credits)
PDD 699 Master's Thesis (4 credits)

Internships

An internship is not required. However, students without planning or related work experience are encouraged to seek an internship placement. Paid and unpaid internships are arranged through the Levin College's Office of Student Services. Interested students may receive elective credit for internship work.

Exit Project or Thesis

Neither an exit project nor a thesis is required. However, MUPDD students may choose to complete either as an elective 4 credit hour option. For an exit project, the student selects a faculty advisor from the MUPDD faculty. Students must complete the Exit Project Approval Form and obtain all signatures before registering for Exit Project credit (PDD 698). For the thesis option, students select a thesis advisor from the MUPDD faculty. In conjunction with their advisor, the student selects a thesis committee, which consists of at least three individuals, all of whom must be members of the Graduate Faculty. The committee's function is to advise and assist the student in writing and research, and to formally approve the thesis once it has been successfully defended. (See the section on Thesis/Dissertation in this Catalog.)

Faculty Research and Publications

Members of the Urban Planning, Design, and Development faculty have wide-ranging research interests, including community development, conflict resolution, economic development, historic preservation, housing, land use, neighborhood development, environmental systems, and real estate. They have published in the leading journals in these fields.

MUPDD faculty are active members of professional organizations such as the American Planning Association, the American Institute of Certified Planners, the American Institute of Architects, the Urban Land Institute, and the Ohio Planning Conference.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Research, Public Service, and Training

The Levin College provides applied research and outreach services to the community through a number of integrated centers and initiatives. The collective mission of these research centers is to serve as a source for the investigation of issues and challenges facing urban communities and to apply college resources to solutions. Students have opportunities to work with faculty and staff in the research and public service centers, programs, and related initiatives of the Levin College. These include major programs in economic and neighborhood development, public finance, land use and community planning, environmental policy and finance, community health policy, nonprofit administration and policy, public management, and capacity-building training. These activities support the academic programs of the Department of Urban Studies by providing

opportunities for graduate and undergraduate students to participate in ongoing research, training, technical assistance, and database development projects. See the [Educational Resources](#) section of this Catalog for information on the Levin College facilities.

College Computing and Technology

Two general purpose computer labs are located in UR 39 and UR 40. Software available in the labs include applications for word processing, spreadsheet analysis, database, computer aided presentation, statistical analysis, Geographic Information Systems, ArcInfo, and Internet access. The labs provide access to laser printers for high-quality black-and-white output, a color laser printer for GIS maps, and a color scanner to capture graphics. Each lab is equipped with a permanently mounted LCD projector for instructional purposes. Levin College students are provided with disk space on the networked server for conveniently storing class work and for creating personal web pages. The Interactive Media Lab (IML) is available by appointment for production of DVDs, CD-ROMs, video/audio streams, and advanced graphics.

Master of Science in

Urban Studies

Maxine Goodman Levin College of Urban Affairs

Urban Affairs 231
(216) 687-2136
http://urban.csuohio.edu/academics/graduate/msus/

Wendy Kellogg, Graduate Program Director

Areas of Study

Economic Development
Public Finance
Urban Policy Analysis
Urban Real Estate Development
Community and Neighborhood Development
Law and Public Policy

Introduction

The program offers advanced training in urban studies to recent undergraduate-degree recipients, practitioners already working in the field, and returning students who wish to pursue careers in public, not-for-profit, or private service. No single discipline adequately covers the broad spectrum of knowledge that the modern urban problem solver needs. Thus, the program draws on many disciplines to broaden and extend the student's knowledge and expertise through a combination of specially developed urban core courses, research seminars, and electives. It is an interdisciplinary program drawing on resources and faculty from a variety of disciplines, colleges, and departments. Classroom knowledge can be augmented by internships and other experiential training that add scope to the program.

The objective of the program is to educate students to the major theoretical perspectives and applied research methods useful for effective problem definition and problem solving. These skills enhance organizational capacity in attempting to define, analyze, and solve urban problems. Special emphasis is placed on economic development, public finance, law and public policy, community and neighborhood development, and urban policy analysis.

For updated information about the MS in Urban Studies program, visit http://urban.csuohio.edu/academics/graduate/msus/

Faculty Research and Publications

Urban Studies faculty members conduct research in the areas of housing, economic development, environmental policy and planning, historic preservation, neighborhood and community development, social policy, conflict resolution, public finance, and urban management.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Research Units

Students may have opportunities to work with the faculty and staff in the research, public service, and training centers in the Levin College. See the Educational Resources section of this Catalog for information on the Levin College facilities.

College Computing and Technology

Two general purpose computer labs are located in UR 39 and UR 40. Software available in the labs include applications for word processing, spreadsheet analysis, database, computer aided presentation, Geographic Information Systems, ArcInfo, Internet access, and statistical analysis. The labs provide access to laser printers for high-quality black-and-white output, a color laser printer for GIS maps, and a color scanner for capture of graphics. Each lab is equipped with a permanently mounted LCD projector for teaching computer-based classes. Levin College students are provided with disk space on the networked server for conveniently storing class work and for creating personal web pages. The Interactive Media Lab (IML) is available for production of DVDs, CD-ROMs, video/audio streams, and advanced graphics. Digital video/audio capture equipment is available. The IML is equipped with Apple Macintosh computers and a Quicktime streaming server. Additional computing information may be found at the College Web site at http://urban.csuohio.edu/

Financial Assistance

The Levin College provides graduate assistantships on a competitive basis to full-time students. Although the deadline for receipt of graduate assistantship applications is March 1, fullest consideration is given to those who have submitted all application materials for the MS program by February 1.

The College also offers paid internships and tuition grants to eligible degree-seeking students. Application forms are available from the Levin College Office of Student Services. See also the section on Expenses and Financial Aid: Graduate Assistantships in this Catalog.

Career Information

The Levin College, through the Department of Urban Studies, the Office of Student Services, and the faculty, provides a variety of services related to career planning to help students and graduates find employment related to their program of study. Current job postings are maintained in the Office of Student Services and on the College Web site. Cleveland State's Career Services Center also provides graduate students and alumni with career advice and career development assistance, including resume review. (See the section on Campus Services and Programs: Career Services of this Catalog).

Careers in Urban Affairs

Graduates of the MS program in Urban Studies hold a variety of positions in the public, private, and nonprofit sectors. The alumni roster includes elected officials, directors of local development corporations and other nonprofit organizations, real estate redevelopment entrepreneurs and program planners and managers working in a broad spectrum of urban organizations

Admission Information

Applicants to the Master of Science in Urban Studies Program must meet the minimum requirements established by the College of Graduate Studies and the MS program faculty:

1. A minimum undergraduate grade-point average of 3.0.
2. Graduate Record Examination (GRE) scores, with an average Verbal and Quantitative score at the 40th percentile, and an Analytical Writing score of at least 4.0. Students with a graduate degree from an accredited college or university are exempted from this requirement. Other standardized admission examinations may be substituted at the discretion of the Program Director.
3. Two letters of recommendation, using the Recommendation Form for Graduate Admission (available online at http://www.csuohio.edu/gradcollege/admissions/pdf/recommend.pdf).
4. Non-native English speakers must demonstrate English-language proficiency as indicated in this bulletin under "Admission Requirements for International Students and Permanent Residents".

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Types of Admission

The academic status of a graduate degree-seeking applicant is determined after a review of admission credentials. Graduate Program Committees, in concurrence with the Office of Graduate Admissions, may recommend admission of applicants as regular or conditional graduate students. Please refer to the Admission to the College of Graduate Studies section of this catalog for information on admission categories.

Degree Requirements

A minimum of forty credit hours is needed to complete degree requirements. Students must meet all University requirements and must attain a 3.0 or better grade-point average.

Students are required to complete a common core curriculum and an area of specialization with the advice and consent of their faculty advisor.

Core Courses

The core of the MS in Urban Studies curriculum (16 credit hours) is required of all students and consists of the following:

UST 601 Applied Quantitative Reasoning I (4 credits)
UST 603 Public Finance and Economics (4 credits)
UST 605 Urban Spatial Structures (4 credits)
UST 606 Technology and the Evolution of Human Settlements (4 credits)

Areas of Specialization

Students complete an area of specialization (24 credit hours) to be chosen in consultation with an advisor. Specializations consist of required courses, elective(s), and a capstone course, exit project, or thesis. The areas of specialization are given below. Please see the Graduate Advisor for specific curriculum plans.

Economic Development
Public Finance
Urban Policy Analysis
Urban Real Estate Development
Community and Neighborhood Development
Law and Public Policy

Law and Public Policy Program

The Levin College and the Cleveland-Marshall College of Law jointly sponsor the Law and Public Policy program. The program and its curriculum are recommended for law students and graduate students in urban affairs who are interested in public-service careers and who wish to expand their understanding of legislative and administrative procedures, governmental decision-making, and public-policy development.

Required courses include:

  LAW 557 Legislation (3 credits)* or PSC 605 Public Administration and the Political Process (4 credits)
  LAW 623 Administrative Law (3 credits)* or PAD 631 Law and Public Administration (3 credits)

See the College of Law Catalog for course descriptions.

Three experiential opportunities are offered. The Law and Public Policy Clinic introduces students to the legal and analytic tools needed in addressing public policy issues. The Washington and Columbus seminars allow students to observe public policy as it develops through the legislature and executive agencies.

  UST 573 Columbus Seminar (4 credits)
  UST 574 Washington Seminar (4 credits)
  UST 670 Introduction to Law and Public Policy (4 credits)
  UST 683 Law and Public Policy Clinic (4 credits) (Prerequisite: UST 670)

Students may select courses in the areas of economic development, environment, law and public policy, organizational leadership, urban policy analysis, and urban services administration.

Those students whose needs are not met with one of the six areas of specialization listed above may design individual programs of study in consultation with their advisors and with the approval of the Program Director. Examples of individually designed programs of study include Housing and Comparative Urban Studies.

Internship

An internship is not required; however, students without related work experience are encouraged to seek an internship placement. Paid and unpaid internships are arranged through the Department of Urban Studies. Interested students may receive elective credit for internship work.

Exit Requirements

All candidates for the Master of Science in Urban Studies degree must complete a thesis, capstone, or an alternative exit project. Generally, students may not register for thesis/capstone/exit-project credit until they have completed the core courses and the required courses in their area of specialization.

Thesis

Before registering for thesis credit, a student must select a thesis advisor from the Urban Studies faculty. In conjunction with the advisor, the student then selects a thesis committee. The committee consists of at least three members, all of whom must be members of the Graduate Faculty. The committee's function is to advise and assist the student in writing and research and to formally approve the thesis once it has been successfully completed.

Students selecting the thesis option should familiarize themselves with the regulations and procedures of the College of Graduate Studies. (See the section on Thesis/Dissertation in this Catalog.)

Capstone

The capstone seminar provides a final experience for MS in Urban Studies students. Students are expected to prepare and defend a capstone paper reflecting their understanding of a specialization field. The Capstone is a required course for the following specializations: Economic Development, Public Finance, and Urban Real Estate Development.

Exit Project

Before registering for exit-project credit, a student must select an advisor, who will approve the student's proposed project and read the completed report. Students must complete the Exit Project Approval Form and obtain the required signature prior to registering for the project.

Students selecting the exit-project option must successfully complete an applied research report, an original project design, a policy analysis and evaluation paper, or a similar project as approved by the advisor. The exit project must place the work in an academic context, including a comprehensive literature review and appropriate consideration of the theoretical roots of the particular professional application.

Dual Degree Program

In 1998, a cooperative agreement was reached between the Levin College of Urban Affairs at Cleveland State University and the Department of Regional Development of Chung-Ang University in Seoul, Korea, to offer a dual Master of Science degree in Urban Studies/Urban and Regional Planning.

Course of Study

Students who wish to spend the second year of the MS program in residence in Seoul, Korea, must apply to the MS Program Director for admission well in advance of the semester(s) of intended residence.

- Levin College students take Chung-Ang classes (three credit hours), which are accepted by Cleveland State toward the MS degree. They include the following courses:
- Applied Statistics
- Survey Research Methods
- Public Economics
- Regional Economics Elective courses include:
- Urban and Regional Planning
- Urban and Regional Policy
- Urban Planning Methods
- Community Development Methodology
- Introduction to GIS
- Urban History

Most Classes are taught in Korean; however, English textbooks are available and Chung-Ang faculty advise and tutor students in English.

Students receive the MS in Urban Studies degree from Cleveland State University and the Urban and Regional Planning degree from Chung-Ang University.

Educational Specialist Degree

Department of Counseling, Administration, Supervision, and Adult Learning

Rhodes Tower 1419
(216) 687-4613
http://www.csuohio.edu/cehs/departments/

Programs of Study

Counseling
School Administration

Introduction

The Educational Specialist (EdS) degree represents a year of planned advanced graduate study beyond the master's degree. The programs build on the foundation of a master's degree or its equivalent in the same area of specialization. The focus of the programs is the enhancement of specialized professional competence for roles in counseling and administration. Created under the conceptual framework of the Administrator/Supervisor as a Visionary Practitioner, the educational administration and supervision program enables graduates to achieve outcomes reflecting the five knowledge bases that compose this model: organizational change, relational, developmental, contextual, and ethical. These knowledge bases are applied to the programs within the environments of urban and suburban schools, which are culturally diverse and include students with disabilities.

Organizational Change refers to knowledge of the organizational framework and processes necessary to accomplish the work of the organization, as a continuous change process. Developmental refers to knowledge that transforms the organization's basic inputs (e.g., materials, personnel) into desired goals, that use technology to access information and to record organizational progress, and that articulates underlying beliefs that link inputs, activity, and outcome.

Relational refers to partnerships, collaborations, and leadership styles that enable stakeholders to have a shared vision.

Contextual refers to understanding the present organization in relation to its past, in terms of cultural, economic, political, legal, and regulatory influences.

Ethical refers to knowledge about justice, righteousness, and meaning that assures diversity will

be respected, and educational resources will be distributed in a manner that offers equal access to all participants.

Faculty Research and Publications

The faculty members of the Educational Specialist programs are experienced scholars/ practitioners. Their published works include textbooks, articles, curriculum packages, and technical reports based on their professional experience, as well as planned research programs. Administration faculty members have explored legal issues in education, management styles, the supervisory process, personnel management, administrator assessment, career patterns of administrators, and adult learning. Counseling faculty members have studied counseling processes, counseling special audiences, legal and ethical issues in counseling, stress management, human development, and crisis intervention.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Financial Assistance

A limited number of full-time graduate assistantships are available in the Department of Counseling, Administration, Supervision, and Adult Learning (CASAL). Graduate assistants help with the teaching program, aid faculty in conducting research, coordinate the services of the counseling lab, and assist in department administration. Graduate assistantships provide tuition support and a stipend to qualified students. Applications for assistantships can be made through the CASAL office, Rhodes Tower, Room 1419.

Career Information

Students completing the EdS in Administration qualify for a number of administrative positions including, but not limited to, school principal, supervisor, central office, and superintendent. Students completing the EdS in Counseling qualify for positions such as school counselor or director of guidance. Due to early retirement programs recently initiated by many school districts, the employment outlook for individuals completing the EdS program is very good. The EdS program also can be used to qualify for administrative positions in non-school settings or to obtain a counseling license for non-school settings.

Counseling Program

The Educational Specialist in Counseling is a thirty-two credit-hour, post-master's, advanced-training program in counselor education. Its purpose is to help counselors in school and agency settings improve and update their professional expertise, or take course work that will qualify them to sit for the Professional Counselor Licensure Examination (PCLE) in the State of Ohio. It should be noted that students only needing a few courses to sit for the PCLE do not need to apply for the EdS degree but may apply as "Graduate Licensure only." Requirements of the program can be met by full-time or part-time study or a combination thereof. The requirements for program admission are sufficiently flexible to encompass the needs of each applicant defined above.

Admission Information

The following requirements must be met by each candidate applying to the program:

1.   Hold a master's degree with a concentration in counseling with at least one course in each of the following areas:
     a.   Counseling Practicum/Internship, Educational Research, Group Process, Counseling Theory, Human Development or Career Development, and Testing
2.   Fulfill College of Graduate Studies requirements for admission as described in this Catalog.
3.   Make application to the Office of Graduate Admissions for the Educational Specialist degree in Counseling.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Those candidates needing six semester hours or more to complete their concentration requirements must complete the necessary prerequisites prior to admission. If the deficiency is five semester hours or fewer, the candidate may be admitted to the specialist degree program, but will be required to meet the concentration deficiencies during the first eight hours of study. Courses taken to complete concentration deficiencies do not count toward degree requirements.

4.   Admission to the program is based on the candidate's graduate grade-point average, score on the Miller Analogies Test (MAT) or the Graduate Record Examination (GRE), and letters of recommendation. For further information on admission, call the CASAL Department at (216) 687-4613 or visit the Web site at http://www.csuohio.edu/cehs/departments/

Time Limit

All requirements for the Educational Specialist degree in Counseling must be completed within six years of starting course work at Cleveland State University or elsewhere. This requirement pertains to graduate work taken after receipt of a master's degree.

Degree Requirements

1. With the help of the advisor, students establish goals for their personal and professional growth and select a series of courses to meet these goals.
2. Students must complete goal-directed courses in Clinical Counseling to gain licensure.

Clinical Counseling Courses
  CNS 701 Assessment for Counselors (3 credits)
  CNS 702 Individual Intelligence Testing (3 credits)
  CNS 703 Personality Assessment for Counselors (3 credits)
  CNS 706 Psychopathology and Diagnosis for Counselors (3 credits)
  CNS 709 Psychopharmacology for Counselors (3 credits)
  CNS 712 Theories of Personality and Counseling (4 credits)
  CNS 738 Family Counseling (3 credits)
  CNS 781 Internship in Counseling (3 credits)
  CNS 782 Internship in Diagnosis and Testing (3 credits)

3. Interdisciplinary Electives — With the approval of the advisor, the candidate selects a minimum of four credit hours and a maximum of eight credit hours of course work from any graduate program in the University.

Exit Requirements

The granting of the degree is based on the following criteria:

1. Satisfactory completion of course work with a minimum grade-point average of 3.0.
2. Satisfactory completion and evaluation of the Internship in Diagnosis and Testing experience, as determined by a committee composed of two full-time counselor educators, one full-time faculty member who is not a counselor educator, and, if the student chooses, a practicing counselor or a graduate student.

School Administration Program

The Educational Specialist in School Administration program is a thirty-two semester-hour, post-master's program designed to integrate theory and practice in meeting the goals of individuals currently employed in, as well as those aspiring to, positions in school administration. A participant in the Educational Specialist in School Administration program can meet the degree requirements of the College of Graduate Studies and the Department of CASAL through full-time or part-time study.

Admission Information

The following requirements must be met by each candidate applying to the program:

1. Hold a master's degree.
2. Fulfill College of Graduate Studies requirements for admission as described in this Catalog.
3. Make application to the Office of Graduate Admissions for the Educational Specialist program in School Administration.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Prerequisites

A master's degree is required. An individual assessment of graduate transcripts is performed for each student entering the EdS program. Course work to meet prerequisites varies depending on the student's prior graduate credits. Course work, in addition to the requirements for the EdS degree, may be necessary in order to meet state of Ohio licensure standards.

Time Limit

All Educational Specialist degree requirements must be completed within six years of starting course work at Cleveland State University or elsewhere. This requirement pertains to graduate work taken after receipt of a master's degree.

Exit Requirements

The granting of the degree is based on the following criteria:

1 Satisfactory completion of course work with a minimum grade-point average of 3.0.
2 Satisfactory evaluation of the internship experience. If the candidate receives a grade of C for the internship, the student may be required to repeat all or part of it.
3 Satisfactory evaluation of the candidate's growth, the appraisal of which is based on the student's initial program goals and objectives. This evaluation is usually a written examination.

However, an action-research project, an oral examination by selected faculty, a field demonstration, a culminating paper that shows evidence of attainment of program objectives, or a combination of the above may be substituted for the written examination, but only if arrangements are completed when the Program of Study form is filed.

Degree Requirements

Participants plan their programs of study with an advisor.

EdS in School Administration Course of Study

(32 credits)

Superintendency

Prerequisites

Master's degree,completion of coursework towards Principal License and three years of experience in School Administration.

Required Courses

  ADM 674 Special Education Law (4 credits) or ADM 677 Legal and Policy Issues in Education (4 credits)
  ADM 752 School Business Management and School Facilities (4 credits)
  ADM 811 The School Superintendency (4 credits)
  ADM 880 Internship (two semesters, 2 credits per semester)

Electives (16 credits)

Educational Staff Personnel
Administration

Prerequisites

Master's degree and completion of coursework toward Principal's License.

Required Courses

  ALD 645 Organizational Behavior and Change (4 credits) ,
  ADM 615 Instructional Leadership and Pupil Personnel Administration (4 credits)
  ADM 618 Staff Personnel Administration (2 credits)
  ADM 642 Collective Bargaining and Contract Management (2 credits)
  ADM 643 School Finance and Economics (4 credits)
  ADM 676 Clinical Supervision and Professional Development (4 credits)
  ADM 811 The School Superintendency (4 credits)
  ADM 880 Internship (two semesters, 2 credits per semester)

Electives (4 credits)

Curriculum, Instruction, and Professional
Development

Prerequisites
Master's degree and two years of teaching under a professional license.

Required Courses

EDB 612 Curriculum Theory and Instruction (3 credits)
ADM 613 School Law (4 credits)
ADM 615 Instructional Leadership and Pupil Personnel Administration (4 credits)
ADM 618 Staff Personnel Administration (2 credits)
ADM 676 Clinical Supervision and Professional Development (4 credits)
ADM 680 Supervision Practicum (two semesters, 2 credits per semester)
ADM 811 The School Superintendency (4 credits)

Electives (7 credits)

Principalship

Prerequisites
Master's degree and two years of teaching under professional license at the age levels for which the principal license is taught.

Required Courses

ADM 613 School Law (4 credits)
ADM 614 Administration Principles and Practices (4 credits)
ADM 615 Instructional Leadership and Pupil Personnel Administration (4 credits)
ADM 618 Staff Personnel and Administration (2 credits)
ADM 642 Collective Bargaining and Contract Management (2 credits)
ADM 643 School Finance and Economics (4 credits)
ADM 676 Clinical Supervision and Professional Development (4 credits)
ADM 677 Legal and Policy Issues in Education (4 credits) or ADM 674 Special Education Law (4 credits)
ADM 681 Elementary School Administration: Theory and Practicum II (2 credits) or ADM 683 Secondary School Administration: Theory and Practicum II (2 credits)
ADM 682 Middle School Administration: Theory and Practicum II (2 credits)

Pupil Services Administration

Prerequisites
A master's degree in the area of Special School Services, such as school audiologist, school counselor, school social worker, speech-language pathologist, or school psychologist.

Required Courses:

ADM 614 Administration Principles and Practice (4 credits)

ADM 618 Staff Personnel Administration (2 credits)

ADM 615 Instructional Leadership and Pupil Personnel Administration (4 credits)

ADM 643 School Finance and Economics (4 credits)

ADM 676 Clinical Supervision and Professional Development (4 credits)

ADM 677 Legal and Policy Issues in Education (4 credits) or ADM 674 Special Education Law (4 credits)

ADM 680 Supervision Practicum (two semesters, 2 credits per semester)

ADM 811 The School Superintendency (4 credits)

Electives (2 credits)

Licenses Apart from Degree Programs

Prerequisites
Master's degree and course requirements for principal's license and three years of experience in school administration.

The Superintendent License may be added to the valid Professional Teacher License for an individual who holds a Principal or Administrative Specialist License and may be valid for teaching in the areas designated in the license for supervising programs for ages three through twenty-one and pre-kindergarten through grade twelve or for administrative duties in a school system.

In addition to the prerequisites, the following requirements must be met prior to recommendation for the Superintendent License:

1. Three years of successful experience in a position requiring a Principal or Administrative Specialist License
2. Completion of a program that includes the following course of study:
    ADM 677 Legal and Policy Issues in Education (4 credits) or ADM 674 Special Education Law (4 credits)
    ADM 752 School Business Management and School Facilities (4 credits)
    ADM 811 The School Superintendency (4 credits)
    ADM 880 Internship (two semesters, 2 credits per semester)

Administrative Specialist License

The Administrative Specialist License may be added to a valid Professional Teacher License or Professional Pupil Services License and may be valid for working in a central office or supervisory capacity under the following conditions:

1   Completion of two years of successful teaching experience under a professional teacher license, with the exception of the Pupil Services Administration License, which requires two years of experience under a Professional Pupil Services License.

2   Successful completion of an approved program of preparation for the license, which includes a concentration in one of the following three areas:

Educational Staff Personnel Administration

Prerequisites

A master's degree, completion of course work toward Principal license, and two years teaching experience.

ADM 615 Instructional Leadership and Pupil Personnel Administration (4 credits)
ADM 618 Staff Personnel Administration (2 credits)
ADM 642 Collective Bargaining and Contract Management (2 credits)
ADM 643 School Finance and Economics (4 credits)
ALD 645 Organizational Behavior and Change (4 credits)
ADM 676 Clinical Supervision and Professional Development (4 credits)
ADM 811 The School Superintendency (4 credits)
ADM 880 Internship (two semesters, 2 credits per semester)

Curriculum Instruction, and Professional Development

Prerequisites
Master's degree and two years of successful teaching under a professional license.

EDB 612 Curriculum Theory and Instruction (3 credits)
ADM 613 School Law (4 credits)
ADM 615 Instructional Leadership and Pupil Personnel Administration (4 credits)
ADM 618 Staff Personnel Administration (2 credits)
ADM 676 Clinical Supervision and Professional Development (4 credits)
ADM 680 Supervision Practicum (two semesters, 2 credits per semester)

Pupil Services Administration

Prerequisites
A master's degree in the area of Special School Services, such as school audiologist, school counselor, school social worker, speech-language pathologist, or school psychologist

ADM 614 Administration Principles and Practice (4 credits)
ADM 618 Staff Personnel Administration (2 credits)
ADM 615 Instructional Leadership and Pupil Personnel Administration (4 credits)
ADM 643 School Finance and Economics (4 credits)
ADM 676 Clinical Supervision and Professional Development (4 credits)
ADM 677 Legal and Policy Issues in Education (4 credits) or ADM 674 Special Education Law (4 credits)
ADM 680 Supervision Practicum (two semesters, 2 credits per semester)
ADM 811 The School Superintendency (4 credits)

Psychology Specialist

School Psychology Program

Department of Psychology

Chester Building 158
(216) 687-2544
http://www.csuohio.edu/sciences/dept/psychology/graduate/index.html

David Grilly, Chair
Kathleen McNamara, School Psychology Program Director

Introduction

The School Psychology program at Cleveland State University promotes the welfare of children and their families by preparing school psychologists who possess knowledge, skills, and values supporting their role as problem-solvers in schools and other educational settings. As an urban university, Cleveland State is committed to meeting the needs of an increasingly diverse population—both the students enrolled in University educational programs and the clients whose needs will be served by program graduates.

The program faculty views School Psychology as a discipline within the field of Psychology. This broadly based orientation facilitates teaching and learning about development, cognition, physiology, and social interaction (including dimensions of human diversity), as well as their applications in working with children, adolescents, and adults in educational settings. At the same time, learning experiences are designed to develop skills in assessing and intervening in children's academic and other school-performance problems. Faculty subscribe to an eco-behavioral model of service delivery, which is reflected in the program curriculum and in scholarly research activities. This model emphasizes the direct assessment of children's behavior, including environmental factors, for purposes of developing, implementing, and evaluating the impact of appropriate academic and behavioral interventions. The philosophy and structure of the Cleveland State School Psychology program are consistent with program standards promulgated by the National Association of School Psychologists, and it is a NASP-approved program.

The Psychology Specialist (PsyS) degree is awarded to students upon completion of three years of full-time preparation. Students are required to complete the two-year Master of Arts degree program in Psychology (School Psychology specialization) as a prerequisite for admission to the PsyS degree program, which comprises an additional year of study beyond the MA.

Student engagement in the profession of School Psychology is encouraged through membership

in the Graduate Association of School Psychology, a student organization sponsored by the CSU School Psychology program. GASP activities are intended to provide opportunities for networking among students, as well as familiarity with current issues and trends in School Psychology.

The Faculty

The School Psychology faculty is actively engaged in a variety of program-related activities, including research (see below), supervision, professional development and service to local schools and educational personnel, service to professional associations, and consultation regarding program development and evaluation. Faculty are committed to the development of strong relationships with students as an important basis for professional growth, providing mentoring, research supervision, ongoing evaluation, and opportunities to contribute to faculty research endeavors.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Faculty Research

The primary School Psychology program faculty conduct research in several areas:
Connie Hollinger
Development of gifted women and girls; effective school-based service-delivery models.
Colleen McMahon
Early intervention with at-risk children; developmental disabilities; school-based intervention practices.
Kathleen McNamara
Effective school-based interventions and service-delivery models; social competence promotion; professional issues in school psychology.

Financial Assistance

Approximately 80% of students enrolled in the School Psychology program receive financial assistance in the form of a full or partial tuition grant during their first year in the (MA phase) program. (Students provide service to the department as graduate assistants; hours of service are determined by the amount of the tuition grant.) Only those who have earned an undergraduate grade-point average of 3.0 and above are eligible for this assistance. While there is no program of aid available to students in their second year of study, occasional assistantship positions within the department, or in connection with faculty research grants, may be available. In addition, assistantships may be available through other units on campus.

The third-year, full-time internship has traditionally provided a stipend in an amount equivalent to the state minimum teacher's salary. Although funding for this purpose is not guaranteed, it is expected to continue in the foreseeable future.

The Carlos Cortez Fund, founded in memory of a Cleveland Municipal School District school

psychologist who was a leader in the Greater Cleveland professional community, provides financial support for students of Hispanic descent enrolled in the Cleveland State University School Psychology program.

Program Accreditation

The School Psychology program is approved by the National Association of School Psychologists (NASP) and accredited with the Cleveland State College of Education and Human Services programs by the National Council for Accreditation of Teacher Education (NCATE).

Career Information

Successful completion of the PsyS program in School Psychology confers immediate eligibility for School Psychologist credentials from the Ohio Department of Education (educator licensure), authorizing employment by schools throughout Ohio. Graduates are also eligible to receive the Nationally Certified School Psychologist designation. The Ohio State Board of Psychology School Psychologist license can be obtained upon completion of several additional post-degree requirements, including several years of professional practice and successful performance on a Board-administered examination. Recent graduates of the School Psychology program have been employed in public school districts, early childhood programs, day treatment centers for youth with serious emotional disturbances, and nonpublic schools.

Admission Information

Applicants first seek admission to the Master of Arts in Psychology degree program, representing the first, two-year phase of the School Psychology Program. Students are admitted for the fall semester through an application process conducted in late winter. Admission is based on several factors:

1. Satisfactory preparation in psychology, evidenced in an undergraduate psychology major, successful performance on the Graduate Record Examination (GRE) Psychology Subject area, or course work in key subjects in psychology, including Introduction to Psychology, Personality Theories, Learning Theories, Child Development; and Behavioral Science Statistics;
2. Satisfactory performance in undergraduate studies including an undergraduate cumulative grade-point average of at least 2.75 (3.0 and above preferred);
3. Satisfactory GRE Verbal, Quantitative, and Analytical scores (average at the 50th percentile or better);
4. Letters of recommendation provided by at least two individuals familiar with the candidate's academic performance and potential for career success;
5. A commitment to provide school psychological services in Ohio for at least one year following completion of the program;
6. A written, personal statement describing relevant experiences and professional goals; and
7. A satisfactory interview conducted by invitation of the School Psychology Program Committee.

Individuals applying to the School Psychology program must complete the following activities by February 10th of each year:

1. Submit to the Graduate Admissions Office an Application for Graduate Admission to the Master of Arts in Psychology program, along with the application fee. (The MA degree must be obtained before candidates can enroll in the PsyS degree program; a student must note on the application his or her interest in the Master of Arts degree, School Psychology specialization.) Online applications are preferred.

2. Arrange for the submission of scores on the Graduate Record Examination (GRE), an official copy of transcripts showing undergraduate course work and degree, and at least two letters of reference to the Cleveland State Graduate Admissions Office.

3. Complete the Personal Statement and Information form, and submit directly to the Department of Psychology. This form can be obtained from the Department of Psychology Office: (216) 687-2544, or online at
http://www.csuohio.edu/sciences/dept/psychology/graduate/index.html

Upon completion of the requirements for the Master of Arts degree, students' performance is reviewed for admission to the Psychology Specialist (PsyS) degree phase of the School Psychology program. Requirements for admission to the PsyS degree phase are as follows:

1. Successful completion of the MA degree phase, including satisfactory performance during the second-year field practicum, as judged by University faculty and practicum supervisors;

2. Recommendation by the faculty of the MA degree phase of the School Psychology Program; and

3. Substantial interest in and likelihood of success in the profession of School Psychology, as judged by the faculty on the basis of the student's performance in the Cleveland State graduate program.

All students are required to complete the entire course of study comprising the Cleveland State School Psychology Program (both MA and PsyS degree phases), although it is sometimes possible to transfer academic credit for equivalent courses (if credit has not been applied toward another degree), or to earn credit by examination, subject to the approval of the School Psychology Program Committee and course instructors. The School Psychology program does not offer an option for part-time study during either the Master of Arts or Specialist degree phases.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

Master of Arts Degree Phase:

First Year
  PSY 525 Social Psychology (4 credits)
  PSY 536 Behavioral Assessment (4 credits)
  PSY 537 Child and Adolescent Assessment and Treatment (4 credits)
  PSY 528 Intellectual Assessment and Practicum for School Psychology (4 credits)

PSY 550 Child and Adolescent Development and Disorders (4 credits)
PSY 564 Psychoeducational Intervention (4 credits)
PSY 670 Crisis Management (2 credits)
Second Year
PSY 511 Univariate Statistics and Experimental Methodology (4 credits)
PSY 513 Measurement and Program Evaluation (2 credits)
PSY 572 Group Interventions (2 credits)
PSY 651 Psychopharmacology (4 credits)
PSY 672 Multicultural Psychology and Diversity Practicum (4 credits)
ESE 504 Teaching Students of Varying Abilities (3 credits)

Psychology Specialist Degree Phase:

Third Year
PSY 694 Directed Observation in Schools (2 credits)
PSY 725 and PSY 726 Role and Function of the School Psychologist I and II (2 credits each)
PSY 767 Special Topics in School Psychology: Internship Orientation (2 credits)
PSY 730 Reading Assessment and Intervention (2 – 4 credits)
PSY 735 Consultation in School Psychology (2 – 4 credits)
PSY 767 Special Topics in School Psychology: Applications of the Law in School Psychology (2 credits)
PSY 790 and PSY 791 Supervised Experience in School Psychology (6 credits each)
PSY 795 and PSY 796 Seminar in School Psychology I and II (2 credits each)

Exit Requirements

Upon conclusion of the third-year internship, and before receiving the PsyS degree, each student must present a portfolio of work demonstrating attainment of the competencies required for the practice of School Psychology. The portfolio must include documentation of services to schoolchildren at the primary, secondary, and tertiary levels of prevention (also known as Tiers 1, 2, and 3 of the Response to Intervention service delivery model), as well as data describing service outcomes. Eligibility for licensure as a School Psychologist by the Ohio State Board of Education and the Ohio State Board of Psychology require a passing score on the Praxis II Exam, which must be completed before the end of the internship year.

Doctor of Philosophy in

Adult Development and Aging

New Program to be offered Fall 2009

A joint program with the University of Akron

Department of Psychology

Chester Building, Room 158
(216) 687-2544
Benjamin Wallace, Graduate Program Director

Introduction

The Ph.D. program in Adult Development and Aging is offered jointly by Cleveland State University and the University of Akron. The purpose of the program is to train researchers who (a) will become expert in the subject of cognitive and behavioral functioning in adulthood and aging, (b) will convey existing knowledge through teaching and generate new knowledge through empirical investigation and analysis, and (c) will become involved with their communities in addressing issues of pressing social importance. Upon completion of the program, students will be able to teach, carry out research, and serve as community consultants on the cognitive, motor, perceptual, and social functioning of adults throughout their life span. Graduates from the program will be competitive for faculty positions in teaching and research at 4-year and 2-year institutions of higher education and for research positions in applied health, rehabilitative, and aging facilities as well as in research institutes.

The program has outstanding faculty with whom students conduct their dissertation research. Students have the opportunity to do research with faculty at Cleveland State and the University of Akron.

Financial Assistance

Graduate assistantships are available on a competitive basis. They include tuition support and a stipend during the academic year. Students who are awarded teaching assistantships are required to teach classes.

Admission Information

Admission to the program will be determined by a joint committee consisting of program faculty from both Cleveland State University and the University of Akron. All applications to the Adult Development and Aging program will be evaluated on the following criteria:

1. Completion of a B.A. or B.S. degree in Psychology or a related discipline for admission to the M.A.-Ph.D. option. Completion of an M.A. (or similar Master's level) degree in Psychology or related discipline is required for admission to the Ph.D. option. Admitted students must provide the Department of Psychology at either institution with an official transcript, showing proof of degree conferral from the student's institution or an official letter of completion from their university Registrar's office. If an official transcript is not yet available, this will clear the student for one semester until an official transcript can be obtained. M.A.-Ph.D. students who do not provide proof of degree conferral before Fall semester begins are not eligible to hold an assistantship/ scholarship and will be unable to register for classes. Ph.D. students who do not provide proof of degree conferral before Fall semester begins are not eligible to hold an assistantship/scholarship at the Ph.D. level of funding.
The Psychology major as an undergraduate is strongly recommended. However, applicants may still be considered if they have sufficient background in psychology or a closely related field. (We prefer students to be admitted to this program to have completed 30 semester credits in undergraduate psychology classes including coursework in General/Introductory Psychology, Statistics/Quantitative Methods in Psychology, and Experimental Psychology).

2. For applicants to the M.A.-Ph.D. option, an overall undergraduate GPA of 3.25 or greater is strongly preferred. The same criterion applies to applicants who already possess an M.A. degree and apply to the program as a potential Ph.D. candidate. Such students must show evidence of strong academic performance in their previous graduate coursework and any related research requirements (e.g., thesis).

3. For the M.A.-Ph.D. and Ph.D. options, minimum scores of 550 for the Verbal and Quantitative subtests of the Graduate Record Exam (GRE) General Test, as well as the GRE Psychology Subject Test are preferred. Students whose first language is not English may substitute a TOEFL score for the verbal score. Applicants with GRE scores well above the minimum for one or more of the three tests, but one or more score below the minimum still may be considered, if there is strong compensating evidence. For example, applicants with a GRE Verbal score below the minimum may demonstrate verbal ability by presenting a high GRE Analytic Writing score (5.0 to 6.0) and at least one more indicator of strong verbal ability such as writing samples, letters of reference, and performance in courses with heavy writing components.

4. Three letters of recommendation from persons familiar with the applicant's academic work.

5. Overall fit with the Adult Development and Aging program. Decisions about fit are based on information gleaned from an applicant's personal statement (indicating educational and research interests, career goals, and reasons for interest in Cleveland State University or the University of Akron), from letters of reference describing specific applicant skills and experiences, and, if applicable, from any additional contacts (e.g., telephone, email, site visits) with the applicant during the admission process.

6.   Research and Practical Experience. Evidence of academic research and applied practical experience are important for addressing issues of long-term motivation to develop as a professional. Thus, applicants are encouraged to provide information describing any one or more of the following: (a) participation as an investigator on research projects, (b) conference presentations or published chapters or journal articles, (c) past experience in writing grant and fellowship applications, (d) experience in an applied setting involving adult development and aging-related tasks such as long-term care, occupational therapy, etc., and (e) other similar documentation of research and/or practical experience.

Ph.D. Degree Completion Requirements

Students will be required to take courses at both Cleveland State University and the University of Akron. Enrollment and successful completion of the following courses will be required:

Social Psychology
Health Psychology
Mental Health and Aging
Sensation and Motor Functions
Perception and Attention
Neuropsychology
Cognition
Learning, Motivation, and Emotion
Motor and Cognitive Disorders of Aging
Psychological Tests and Measurements
Psychological Research Using Quantitative and Computer Methods I and II
Psychology of Adulthood and Aging
Biopsychology
Industrial Gerontology
Research Methods in Psychology
Ethical and Legal Issues
Psychopharmacology in Later Adulthood
Behavioral Intervention
Sexuality and Aging
Graduate Seminars in Adult Development and Aging

Graduate students also are required to register for the Ph.D. Candidacy Examination during the appropriate semester(s), for Ph.D. Dissertation when conducting research and to successfully write and defend their dissertations. For the project to be successfully completed, the student must write a dissertation describing and interpreting the results from the research project (prepared in APA style and consistent with the format prescribed by the College of Graduate Students and acceptable to the student's dissertation committee) and publicly defend the research and the written dissertation. The time required for the completion of the research and the defense of the resulting dissertation cannot be predicted in any individual case. Ph.D. students must complete at least 94 credit hours of graduate study before becoming eligible for graduation.

Doctor of

Business Administration

College of Business Administration

Ahuja Hall 420
(216) 687-6952
http://www.csuohio.edu/business/academics/doctoral.html

Raj Javalgi, Graduate Program Director

Areas of Study

Finance
Global Business
Information Systems
Marketing
Operations Management

Introduction

The objective of the Doctor of Business Administration (DBA) program is to develop within each candidate an expertise in a functional area of business administration so that he or she may advance business theory and practice and enhance the contributions that business can make to the larger community.

The DBA degree prepares the student for a rewarding academic career in teaching and research at the college or university level. Alternatively, the program offers advanced training in a variety of business areas that significantly enhance the student's business career development. Regardless of the career path selected, the DBA program provides students with an intellectually challenging and rewarding experience.

The DBA program is designed to provide an academically rigorous experience to a diverse population of traditional and non-traditional students. The degree can be pursued while working full-time. To provide flexibility and to meet the needs of working students, course work is offered through evening and weekend classes. A limited number of research and teaching assistantships provide financial support for full-time graduate students. Students with assistantships take nine to twelve credit hours of course work each term, and are expected to devote twenty hours per week of assistance to the College of Business Administration.

Students must choose a major area of specialization and take additional course work in complementary fields. The DBA program is currently accepting students in the following majors:

- Finance
- Information Systems
- Marketing
- Operations Management

Faculty

The DBA program is taught by College of Business Administration graduate faculty, who are selected for expertise in their disciplines and for their related experience in business.

In addition, DBA faculty are actively involved in the community—as business consultants, members of professional organizations, and community leaders—bringing a richness of practical application to every course they teach.

Faculty participating in the DBA program are also heavily involved in research in their academic fields, in publishing in prestigious journals, and in presenting papers at national and international meetings.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Admission Requirements

In addition to meeting the College of Graduate Studies requirements for admission, an applicant to the DBA program must hold a master's degree in business administration (MBA or equivalent) from an accredited college or university and must meet the following minimum standards:

1. At least 1,260 points based on the following formula: 200 times the graduate grade-point average plus the total score for the Graduate Management Admission Test (GMAT). A minimum score at the 70th percentile on the GMAT is preferred. GMAT scores should be provided from a test taken within five years prior to application to the DBA program.

2. The formula outlined above serves as a general guideline for the Doctoral Program Faculty Committee, which makes admission recommendation to the Graduate College Admissions office. Applicants also must submit a current resume, a statement of goals and objectives, and three letters of recommendation. At least one letter should come from a college professor familiar with the applicant's graduate-level performance and academic ability.

Preparatory Program

The basic preparation for the DBA program is the Master of Business Administration (MBA) degree or its equivalent (e.g., Master of Accountancy) from a program accredited by the

Association to Advance Collegiate Schools of Business (AACSB). If the applicant's master's degree is not an MBA (or its equivalent) from an AACSB-accredited program, the student must present evidence of the completion of the 500- and 600-level core requirements (or their equivalents) from the College of Business Administration's MBA program.

An application, an official transcript from each college and university previously attended, and other application materials must be sent to the Office of Graduate Admissions, Cleveland State University, 2121 Euclid Avenue, Cleveland, Ohio 44115.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Requirements for the DBA Degree

1.   Completion of a minimum of sixty-eight semester credit hours (forty-four hours of courses, twenty-four hours of doctoral research) with a minimum grade-point average of 3.0.

Enrollment in DBA classes is limited to students admitted to the DBA program.

Each DBA student must complete the following program of study, including specific core, major, and support courses, seminars, electives, and doctoral dissertation research:

   a.   Foundational courses, including courses in a student's functional area, and a teaching seminar (minimum 9 credits)
   b.   Advanced Analytical and Operational Core (minimum 12 credits)
   c.   Major (minimum 18 credits)
   d.   Additional research seminars (6 to 8 credits)
   e.   Dissertation research (minimum 18 credits)

Students must register for twelve dissertation research credits during their first year of the dissertation with the dissertation project. After the first year, students must register for a minimum of one dissertation credit hour each semester until the dissertation is completed. Permission of the DBA Director must be obtained prior to registering for any courses numbered 891, 895, 896, or 899.

2.   Selection of a major advisor and an advisory committee.

As the student progresses toward the research phase of the program, he or she selects a major research advisor. In consultation with the major advisor, the student selects at least three additional Graduate Faculty members to comprise the advisory committee. Of these three members, one must be a member of the Graduate Faculty within the student's major area of specialization, and another must be a Graduate Faculty member from outside of the College of Business Administration. The major advisor and the composition of the advisory committee may change during a student's program of study, due to changes in faculty availability and/or changes in a student's needs or interests.

3.   Attendance at doctoral and college seminars.

Doctoral students at the pre-dissertation stage are encouraged to attend regular dissertation-research seminars to hear presentations from faculty members, outside speakers, and doctoral students. Attendance at the dissertation-research seminars is mandatory for students in the dissertation stage of their program.

4.   **Satisfactory performance in the comprehensive examinations.**

Upon completion of formal course work, the student must demonstrate competence in their major field by passing a required comprehensive examination. The written examination is prepared and graded by the Graduate Faculty on the Doctoral Committee from the major area of specialization. Examinations must be completed satisfactorily before beginning the dissertation project.

5.   Presentation and defense of the dissertation proposal.

Upon completion of the formal course work and passing the comprehensive examination, the student prepares a dissertation proposal in his or her major area of specialization. Upon approval by the major advisor, the student makes an oral presentation and defense of the proposal to the Dissertation Committee and other College of Business Administration Faculty.

6.   Presentation and defense of the dissertation.

Upon completion of the dissertation, the student makes an oral presentation and defense of the dissertation to his or her committee and the College of Business Administration Faculty.

Advanced Analytical and Operational Core and Teaching Seminar

DBA students begin their course work by completing the courses in the Advanced Analytical and Operational Core and the Teaching Seminar while limiting their course work in the major. This core is designed to help students develop technical and research skills, and the ability to solve administrative problems.

Preparatory Requirements

OMS 733 Multivariate Statistical Methods (3 credits)
DBA 802 Applied Multivariate Statistical Analysis (4 credits)
DBA 803 Business Research: Analysis and Applications (4 credits)
DBA 720 Seminar on Business Teaching Methods (2 credits)

A teaching-effectiveness course (DBA 720) is offered to ensure that the student develops the skills needed to become an effective instructor. It should be taken at the beginning of the student's doctoral course work.

Workshops

Several workshops assist the DBA student through various stages of the program. These include sessions on enhancing teaching and computer skills, research methodology, and planning and completing the dissertation. In addition, a special workshop is offered each year to help prepare students for their comprehensive examinations.

Requirements for the Major

Each DBA student chooses a major area of specialization within the College of Business Administration. The departments offering the major course work may prescribe additional preparatory requirements beyond the minimum preparation for admission to the DBA program. The student's academic advisor and the DBA Director work with the student to prepare a program of study, including any needed preparation. Depending upon the student's background and research interests, he or she may be required to complete more than the minimum number of courses required in the major. The following sections present the requirements for the area specializations offered within the College of Business Administration.

Doctor of Business Administration Specialization in

Finance (FIN) Major

http://www.csuohio.edu/business/academics/fin/dba_finance.html

Preparatory Requirements

An MBA degree (or the equivalent) is required, including a strong background in the theory of finance, financial management, and intermediate-level microeconomics. A candidate should have completed the following finance courses (or their equivalents):

FIN 501 Financial Management (3 credits)
FIN 601 Financial Policies (3 credits) Major Courses
FIN 801 Theory Seminar (3 credits)
FIN 802 Seminar in Corporate Finance (3 credits)
FIN 803 Seminar in Investment and Portfolio Models (3 credits)
FIN 804 Seminar in Financial Institutions and Markets (3 credits)
FIN 805 Seminar in International Financial Management (3 credits)
FIN 806 Seminar in Real Estate (3 credits)
FIN 807 Applied Research Methods and Design in Finance (3 credits)
FIN 891 Doctoral Research in Finance (1-12 credits)
FIN 895 Dissertation Research Seminar (3 credits)
FIN 896 Current Problems in Finance (1-4 credit)
FIN 899 Dissertation (1-12 credits)

Doctor of Business Administration Specialization in

Global Business(Marketing)

Applicants for the DBA degree with a Global Business Specialization must have an MBA degree or a master's degree in a closely related field. Students who lack sufficient background in international business should take the preparatory courses determined by the student advisor.

Prerequisites

MBA 702 International Business (3 credits)
MKT 702 Marketing Research (3 credits)

DBA Core Courses

OMS 733 Multivariate Statistical Methods (3 credits)
DBA 802 Applied Multivariate Statistical Analysis (4 credits)
DBA 803 Business Research: Analysis and Applications (4 credits)
DBA 720 Seminar on Business Teaching Methods (2 credits)

Global Business Marketing Core Courses

MKT 708 Global Marketing (4 credits)
MKT 800 Doctoral Seminar in Measurement and Scaling (3 credits)
MKT 802 Doctoral Seminar in Global Business Strategy (3 credits)
MKT 803 Doctoral Seminar in Marketing Strategy (3 credits)
MKT 895 Dissertation Research Seminar (3 credits)

Global Business Electives

MLR 721 Multinational Management (3 credits)
FIN 721 International Financial Management (4 credits)
OMS 724 Global Operations Management (3 credits)
IST 802 Doctoral Seminar in Current Topics (e.g., Global Knowledge Management) (4 credits)
MKT 804 Doctoral Seminar in Multivariate Techniques in Marketing (3 credits)
MKT 805 Doctoral Seminar in Consumer Behavior (3 credits)
MKT 896 Current Problems in Global Business (3 credits)

Dissertation Hours
(after completing comprehensive exam)

MKT 899 Dissertation Research (Minimum 18 credits)

Doctor of Business Administration Specialization in

Information Systems (IST) Major

http://cis.csuohio.edu/academics/dbais/

Preparatory Requirements

Applicants for the DBA degree with an Information Systems specialization must have either an MBA or a master's degree in Information Systems or a closely related field. Students who do not have an MBA and/or lack sufficient IS background should take the preparatory courses below. The exact sequence is determined by the student's advisor.

Business Preparatory Requirements

ACT 501 Financial Accounting (3 credits)
FIN 501 Financial Management (3 credits)
MKT 501 Marketing Theory and Practice (3 credits)
MLR 511 Organizational Behavior (3 credits)
OMS 503 Statistical Methods for Business Decisions (3 credits)

IST Preparatory Requirements

IST 602 Advanced Programming of Business Systems (4 credits)
IST 603 Systems Analysis and Methods (4 credits)
IST 604 Modern Database Design and Implementation (4 credits)
IST 606 Management of Business Networks (4 credits)

Preparatory courses may be waived based upon the background of the student.
Major Courses

IST 800 Research Design and Measurements (4 credits)
IST 801 Foundations of Information Systems (4 credits)
IST 802 Seminar in Information Systems Current Topics (4 credits)
IST 803 Knowledge Management (4 credits)
IST 891 Doctoral Research in Information Systems (1-5 credits)
IST 895 Dissertation Research Seminar (3 credits)
IST 896 Current Problems in Information Systems (1-5 credits)
IST 899 Dissertation (1-5 credits)

Doctor of Business Administration Specialization in

Marketing (MKT) Major

http://www.csuohio.edu/business/academics/mkt/dba_marketing.html

Preparatory Requirements

An MBA degree (or the equivalent) is required, including a strong background in marketing theory, marketing practices, and marketing research. A candidate should have completed the following courses (or their equivalents):

  MKT 501 Marketing Theory and Practice (3 credits)
  MKT 601 Marketing Management (3 credits)
  MKT 602/702 Marketing Research (4 credits)

At least two graduate-level electives (or their equivalents) from the following list are required:

  MKT 603/703 Buyer Behavior (4 credits)
  MKT 604/704 Strategic and Tactical Marketing (4 credits)
  MKT 605/705 Services Marketing (4 credits)
  MKT 607/707 Product Management (4 credits)
  MKT 608/708 Global Marketing (4 credits)
  MBA 602/702 International Business (3 credits)

Major Courses

  MKT 800 Doctoral Seminar in Measurement and Scaling (3 credits)
  MKT 801 Doctoral Seminar in Marketing Theory (3 credits)
  MKT 802 Doctoral Seminar in Global Business Strategy (3 credits)
  MKT 803 Doctoral Seminar in Marketing Strategy (3 credits)
  MKT 804 Doctoral Seminar in Multivariate Techniques in Marketing (3 credits)
  MKT 805 Doctoral Seminar in Consumer Buyer Behavior (3 credits)
  MKT 891 Doctoral Research in Marketing (variable credit)
  MKT 895 Dissertation Research Seminar (3 credits)
  MKT 896 Current Problems in Marketing (1-4 credits)
  MKT 899 Dissertation (1-12 credits)

Doctor of Business Administration Specialization in

Operations Management (OMS)

http://www.csuohio.edu/business/academics/oms/dba_opsmgmt.html

Preparatory Requirements

An MBA degree (or the equivalent) is required, including a strong background in quantitative methods, applied probability, statistics, and mathematics. A candidate should have completed the following courses (or their equivalents):

  OMS 503 Statistical Methods for Business Decisions (3 credits)
  OMS 511 Operations Management (3 credits)
  OMS 601/701 Business Decision Methods (3 credits)
  OMS 633/733 Multivariate Statistical Methods (3 credits)

At least one elective (or its equivalent) from the following list is required:

  OMS 611/711 Forecasting (3 credits)
  OMS 622/722 Project Management (3 credits)
  OMS 623/723 Materials and Supply Chain Management (4 credits)

Major Courses

  OMS 801 Theory of Optimization in Production and Operations (3 credits)
  OMS 802 Current Topic Professional Seminar (3 credits)
  OMS 804 Supply Chain Models (3 credits)
  OMS 805 Quality Control (3 credits)
  OMS 806 Strategic Supply Chain Management
  OMS 814 Flexible Manufacturing Systems (3 credits)
  OMS 819 Operations Strategy (3 credits)
  OMS 822 Project Management and Scheduling (3 credits)
  OMS 891 Doctoral Research in Production/Operations Management (1-12 credits)
  OMS 895 Dissertation Research Seminar (3 credits)
  OMS 896 Current Problems in Production/Operations Management (1-4 credits)
  OMS 899 Dissertation (1-12 credits)

Doctor of Philosophy in

Clinical-Bioanalytical Chemistry

A joint program with the Cleveland Clinic

Department of Chemistry

Science and Research 397
(216) 687-2451
http://sciences.csuohio.edu/departments/chemistry/graduate/

Michael Gates, Interim Chair
Yan Xu, Graduate Program Director

Programs of Study

Clinical Chemistry Specialization
Cellular and Molecular Medicine Specialization

Introduction

The Ph.D. program in Clinical/Bioanalytical Chemistry is offered jointly by Cleveland State University and the Lerner Research Institute of The Cleveland Clinic. The program is also affiliated with the Rammelkamp Center for Education and Research of the MetroHealth Medical Center of Cleveland. This unique program attracts students from all over the world. Clinical/ Bioanalytical Chemistry applies the knowledge of chemistry and, in particular, chemical analysis to the study of the origins and diagnoses of diseases. Graduates of this Ph.D. program are employed in many clinical-bioanalytical settings. They become directors of clinical laboratories and research scientists in biomedical and biotechnology fields, in in vitro diagnostics, in reference and analytical laboratories, in academic institutions, and in many other settings. Because of the concentration of chemical, medical, and related industries and institutions in the Cleveland area, many graduates of this program have found fulfilling positions locally. Others have selected employment outside of the Cleveland area, including employment outside of the United States. Chemists with advanced degrees generally have a variety of career opportunities, and Cleveland State graduates are no exception. The program has outstanding faculty with whom students conduct their dissertation research. Students have the opportunity to do research with faculty and research scientists at Cleveland State, The Cleveland Clinic Foundation, and other medical centers. The program has more than fifty faculty members who have a broad range of research interests in disease mechanism and diagnosis, bioanalytical chemistry, biomedicine, and molecular biology. State-of-the-art facilities and advanced bioanalytical technologies are

available to students in the program, including (but not limited to) mass spectrometry (including MALDI-TOF and LC-ESI-triple quadruple MS, LC-ESI-ion- trap MS), HPLC, conventional and capillary electrophoresis, immunoassays, ultracentrifugation, NMR, EPR, FTIR, absorption spectroscopy, spectrofluorometry, X-ray crystallography, molecular biology techniques, and computational chemistry and chemical imaging techniques.

Research Facilities

The Chemistry Department is housed in the Basic Science Building and the Science and Research Center. In addition to well-equipped research laboratories, there are special function rooms, such as a cold room, glass and electronic shops, a computer room, and a darkroom. Generally, graduate students occupy research space near their research advisors, which leads to frequent interaction.

Major instrumentation available in the program includes superconducting multinuclear NMR, automated X-ray diffractometer, GC-ion-trap MS, MALDITOF and LC-ESI-triple quadruple and LC-ESI-ion-trap mass spectrometers, capillary electrophoresis, HPLC, GCFTIR, FTIR spectrometers, UV-visible spectrophotometers, liquid scintillation counter, immunoassay instrumentation, fluorescence spectrometer, atomic absorption spectrometers, EPR, and extensive computer capabilities. Students also have ready access to the facilities and the state-of-the-art instrumentation available at the Cleveland Clinic Foundation. The Cleveland State Mass Spectrometry Facility is located in the department and serves the research and service needs of Cleveland State faculty and students. Opportunities for graduate training in mass spectrometry are afforded through the facility.

Clinical Chemistry Specialization:

The doctoral degree with a Clinical Chemistry Specialization is an internationally recognized program that examines the origins, mechanisms, and diagnosis of disease. Students who complete the program may obtain certification from the American Board of Clinical Chemistry after appropriate work experience and upon successful completion of the certification examination. This program is the only doctoral program in the United State accredited by the Commission on Accreditation in Clinical Chemistry. The Clinical Chemistry Ph.D. specialization is also an option within the Cellular and Molecular Medicine Ph.D. specialization for students interested in both programs. It is the responsibility of the Director of the Clinical Chemistry program to certify that doctoral students in the clinical chemistry specialization have completed the necessary course and research requirements for professional certification. All recipients of the Ph.D. degree with clinical chemistry specialization are strongly urged to take, following graduation, the examination offered for certification by the American Board of Clinical Chemistry.

Cleveland State/Cleveland Clinic Cellular and Molecular Medicine Specialization (CMMS)

Depending on their research interests, applicants to the Ph.D. program may wish to consider participation in the Cellular and Molecular Medicine Specialization, an interdisciplinary initiative linking the resources of the three Cleveland State/ Cleveland Clinic joint Ph.D. programs: Regulatory Biology, Clinical-Bioanalytical Chemistry, and Applied Biomedical Engineering. Together, these units provide unparalleled opportunities for faculty, students, and staff. The Cellular and Molecular Medicine Specialization is not an independent academic program and does not replace existing doctoral programs. Students must fulfill the requirements for their Ph.D. program.

The Cellular and Molecular Medicine Specialization forms a logical interface to coordinate collective efforts of existing programs in four ways:

1) by creating a significant presence in the challenging and exciting new area of Cellular and Molecular Medicine;

2) by establishing a critical mass of researchers around a topic of national scientific and applied medical interest;

3) by realizing the commitment of Cleveland State and CCF in their long-standing collaboration to become major contributors in biomedical engineering and biomedical technology; and

4) by expanding the existing doctoral programs beyond their present state of development

As part of its contribution to these efforts, the Cellular and Molecular Medicine Specialization makes available several graduate assistantships to allow outstanding candidates to concentrate on their research for two years.

Student and Faculty Research Examples

Ph.D. dissertation title examples:
- High-Performance Ion-Exchange Chromatography of Fibrinogen and Fibrinogen Degradation Products: Domain Binding Model;
- Development of Ionic Focusing HPLC: Improved Gradient Techniques
- Synthetic and Structural Studies of Selected Gallium, Indium, Vanadium, and Hafnium Coordination Compounds
- Analysis of DNA Using MALDI-TOF Mass Spectrometry
- Fluorometric Detection of Biological S-Nitrosothiols
- Molecular Modeling Studies of Peptide and Protein Systems
- Development of Capillary Electrophoretic Enzyme Immunoassay and Enzyme Microassay
- Development of LC/MS Methods for the PK & PD Studies of Drugs
- Mass Spectrometric Studies of the Inhibition of SHV-1 Beta-Lactamases
- Structural Studies of Integrin Mediated Signaling by NMR

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Career Information

Graduates of the Ph.D. program go on to a variety of professional positions in the clinical-bioanalytical field, some pursuing postdoctoral studies before obtaining their first professional position. Examples of positions held by Ph.D. graduates include:

- Director, SmithKline Beecham Reference Laboratory
- Vice President, Operations/Quality Assurance, Laboratory Corporation of America
- Research Scientist, Boehringer Mannheim
- Director, St. Thomas Hospital Laboratory
- Postdoctoral Fellow, Lerner Research Institute, The Cleveland Clinic
- Postdoctoral Fellow, National Institutes of Health
- Postdoctoral Fellow in Clinical Chemistry, Mayo Clinic Foundation
- Director, Lipid/Lipoprotein Laboratory, Mayo Clinic
- Group Leader, Lederle Pharmaceutical
- Associate Professor, Old Dominion University
- Associate Professor, Harvard Medical School
- Research Scientist, Amgen
- Associate Professor, Medical Technology, University of Wisconsin
- President, Medical Specialties, Inc.
- Associate Professor, Center for Macromolecular Crystallography, University of Alabama
- Postdoctoral Fellow, Genentech, Inc.
- President, Alpha Omega Chemical Co.
- Associate Director, Bioanalytical R&D, Wyeth Research
- Vice President, Quality and Business Effectiveness, Quest Diagnostics
- Contract Projects Officer, U.S. Department of Agriculture

Financial Assistance

Graduate assistantships are available on a competitive basis. They include tuition support and a stipend during the academic year. Students who are awarded teaching assistantships are required to teach classes. After two consecutive semesters of teaching, students holding teaching assistantships may be eligible for a summer term of financial support. Non-native English-speaking students who are awarded teaching assistantships may not be assigned direct instructional activities until they have been assessed and certified as proficient in spoken English.

Research assistantships also are available, depending on external funding.

Admission Information

Students who wish to enter the Clinical/ Bioanalytical Ph.D. program must meet the requirements of the College of Graduate Studies and Department of Chemistry for admission to the chemistry

graduate program as detailed below.

In addition to meeting the College of Graduate Studies requirements for admission, applicants for graduate study (Master's and Ph.D.) in chemistry must have had one year of general, organic, analytical, and physical chemistry; a year of physics; and mathematics through partial derivatives and multiple integrals. Applicants lacking any of these requirements may be admitted, but any deficiency must be made up as soon as possible. Credits earned in remedial courses do not count toward degree requirements.

Typically, chemistry applicants are required to submit an official report of their performance on both the aptitude and chemistry subject area tests from the Graduate Record Examination (GRE) to the University by the Educational Testing Service (ETS). However, applicants with outstanding records (grade-point average above 3.0 in addition to other evidence of solid preparation) may request that this requirement be waived by the Graduate Committee of the Chemistry Department. The GRE requirement cannot be waived for international students. International students who do not have a degree from an institution in the United States must also arrange to have the results of their performance on the TOEFL sent to the University by ETS.

For applicants requesting financial support, the application deadline each year is January 15. Submit all materials to the Graduate Admissions Office, Parker Hannifin Hall, Room 227. (International applicants submit materials to the Center for International Services and Programs, Parker Hannifin Hall, 3rd floor).

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Ph.D. Candidacy

Graduate students are required to register for the Ph.D. Candidacy Examination at the beginning of their third year of graduate studies. The examination consists of the preparation of an acceptable, written, fully referenced proposal, describing the student's research plans and an oral presentation and committee examination. Successful performance in the candidacy examination qualifies the student to be a Ph.D. candidate in Clinical/Bioanalytical Chemistry.Students who do not pass the Ph.D. Candidacy Examination can not advance to doctoral studies, but may pursue a Thesis-based M.S. degree if approved by research advisor and the director of the graduate program.

Ph.D. Degree Completion Requirements

Clinical/Bioanalytical Chemistry Ph.D. students are required to complete at least twenty-eight credit hours of graduate courses (separate from Ph.D. Dissertation credits) with at least one course from each of three broadly defined areas of chemistry and at least two credit hours in a Chemistry Seminar. The student's advisor may require other courses and/or more than twenty-eight credit hours of course work.

Graduate students also are required to register for the Ph.D. Dissertation course when conducting research and to successfully write and defend a dissertation. The primary objective of Ph.D. candidacy is the completion of a major research project under the direction of the student's doctoral advisor(s). Once the project is completed, the student must write a dissertation describing the project (prepared in the format prescribed by the College of Graduate Studies and acceptable to the student's dissertation committee) and publicly defend the research and the written dissertation. The time required for the completion of the research and the defense of the resulting dissertation cannot be predicted in any individual case. Ph.D. students must complete at least ninety credit hours of graduate study before becoming eligible for graduation.

Exit Requirements

Ph.D. students must complete at least ninety credit hours of approved course work (including CHM 899 Ph.D. Dissertation) and successfully defend a doctoral dissertation.

Doctor of

Engineering

Fenn College of Engineering

Stilwell Hall 104
(216) 687-2555
http://www.csuohio.edu/engineering/chemical/academic/
Dr. Orhan Talu, Doctoral Program Director
Dr. George Chatzimavroudis, Applied Biomedical Engineering & Cellular & Molecular Medicine Director

Areas of Study

Applied Biomedical Engineering
Cellular and Molecular Medicine
Chemical Engineering
Civil Engineering
Electrical Engineering
Industrial Engineering
Mechanical Engineering

Introduction

The Doctor of Engineering degree is granted in recognition of high achievement in scholarship and an ability to apply engineering fundamentals to the solution of complex technical problems. Students are expected to pursue a broad program of study, pass all prescribed examinations, and submit an innovative, high-quality applied-engineering dissertation as described in the section on Degree Requirements.

Faculty Research and Publications

Faculty members of the Fenn College of Engineering are very active in research sponsored by government agencies and industry. Involvement in research activities provides an excellent educational opportunity for students to advance their technical knowledge and professionalism while accomplishing dissertation work. The majority of doctoral students are involved with faculty in sponsored research. All students are expected to be involved in some form of faculty/student research as part of the dissertation work. High-quality research should lead to publication of the project's contribution to the body of knowledge.

There are more than seventy active research projects in the College. The sampling of the topics

listed below reflects the broad interests and capabilities of the faculty and students:

Thermodynamics and Phase Equilibria
Bioreactors and Bioseparations
Computational Fluid Dynamics
Fuel cells and hydrogen storage
Multiphase Flow and Heat Transfer
Phase Change Heat Transfer
Stirling Power and Refrigeration Technology
Environmental Engineering
Tribology
Reactor Design
Adsorption and Diffusion
Sensor Technology
Modulation Techniques
Error Control Coding
Spread Spectrum Systems
Robust Communications
System and Control Theory
Power Electronics and Motor Drives
Intelligent System Monitoring
Intelligent Control
Computer Communication Networks
Modeling of Metabolic Systems
Power System Operation and Control
Neural Networks and Fuzzy Logic
Microwave Devices
Structural Analysis
Vibrations
Finite Element Methods
Material Synthesis and Processing
Ceramics and Composite Materials
Gear Dynamics
Turbomachinery
Rotor Dynamics
Robotics and Machine Vision
Dynamics and Control
Manufacturing Systems
Real World Scheduling
Quality Control
Productivity Enhancement
Data Mining
Non-Destructive Testing of Civil Infrastructure
Failure Analysis and Performance of Construction Materials
Innovative Concrete Paving Materials

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Financial Assistance

All students interested in [assistantships](#) must meet and maintain the requirements specified by the College of Graduate Studies, as described in the front section of this Catalog under Expenses and Financial Aid: Graduate Assistantships.

Research assistantships are provided through sponsored research activities; the number available at a given time is dependent on the research activity within the College. Interested students are encouraged to discuss the availability of assistantships and potential research projects with the program director, department chairs, and faculty as soon as possible.

Teaching assistantships are provided by individual departments to provide assistance with classroom and laboratory courses. Responsibilities can include conducting classroom recitation sessions, setting up laboratory experiments, tutoring students in class work, grading, monitoring tests, and related activities. For further information, students should contact the respective department chairs.

All graduate teaching assistants who are international students are required to pass an English Language Proficiency Examination, which is administered by the University Testing Center. Students are expected to work a maximum of twenty hours per week on their assistantship assignments unless fewer hours are specified under the terms of their contracts. A limited number of graduate tuition grants also are available for which students are expected to work ten hours per week.

Career Information

The major objective of advanced graduate study in engineering is to enhance the student's preparation for a career as a professional in education or research. The doctoral program is designed to strengthen the individual's ability to apply creative leadership in the solution of important and complex technological problems. Graduates of the doctoral program have assumed positions in industry, government agencies, and educational institutions.

Cleveland State-Youngstown State University (YSU) Cooperative Agreement

Through a cooperative agreement between Cleveland State University and YSU, students who live in close proximity to YSU may pursue the Doctor of Engineering Degree offered by Cleveland State by completing some degree requirements at YSU, after admission and consultation with Cleveland State and YSU advisors. Youngstown-area students who choose a YSU faculty member as co-advisor with the Cleveland State dissertation advisor may complete a maximum of twelve credits of doctoral dissertation requirements at YSU. Students interested in this program should consult the Doctor of Engineering Director at Cleveland State or the YSU advisor.

Admission Information

The applicant must hold a master's degree in engineering or in a related science discipline, such as chemistry, physics, or mathematics, or an MD. At least one degree (baccalaureate or master's) must be in engineering. In exceptional cases, applicants to the Applied Biomedical Engineering specialization (see below for program description) may be considered without an engineering degree if they have a strong foundation in calculus, physics, and chemistry or biology, before entering the program. A minimum master's grade-point average of 3.25 is required

The GRE General section is required if one or more of the following conditions pertains:

- The student's most recent engineering degree was awarded by a college or university outside of the United States, or by a Canadian institution not accredited by the Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers.
- The student's graduate cumulative grade-point average is below 3.25.
- The year of the student's master's degree precedes the date of application to the College of Graduate Studies by more than six years.

If the GRE is required, a minimum score at the 80th percentile on the Quantitative section is usually required.

International students should refer to the section earlier in this Catalog for information on testing requirements to demonstrate English-language proficiency.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

The doctoral degree includes the following specific requirements:

1. A minimum of sixty (60) credits beyond the master's degree. These credits must include:

  a. A minimum of thirty (30) credits of course work, which should include;

   i. A minimum of six (6) credits of doctoral core courses (select two of the following)
   ESC 702 Applied Engineering Analysis I (4 credits)
   ESC 704 Applied Engineering Analysis II (4 credits)
   ESC 706 Applied Engineering Analysis III (4 credits)
Or, subject to prior approval by the Program (Graduate Affairs Committee) ESC 794 Selective Topics in Engineering Science (1 to 4 credits)
   ii. A minimum of eight (8) credits of graduate non-engineering courses related to the student's area of study and approved by the advisory committee and Engineering College Graduate Affairs Committee (GAC)

    iii.   A minimum of twelve (12) credits of 700-level engineering electives.

    iv.   Remaining four (4) credits can be any graduate level course.

  b.   A minimum of thirty (30) dissertation credits.

2. Satisfactory completion of the Qualifying Examination.

3. GAC approval of the Dissertation Proposal Approval Form and satisfactory completion of the doctoral Candidacy Examination.

4. Completion of a doctoral Dissertation and successful final oral Defense examination.

5. Compliance with all requirements of the College of Graduate Studies for regular graduate student status and graduation.

Advising

When a student is admitted, the Graduate Director of the program assigns an interim advisor who assists the student in completing a preliminary study plan. The interim advisor is usually the person in charge of the specific area of study listed above. Before sixteen credits of course work have been completed, the student must propose a dissertation advisor and begin plans for the dissertation. At the same time, an advisory committee is appointed, with the dissertation advisor serving as chair. The student's dissertation advisor, in consultation with the student, recommends five members of the graduate faculty for the advisory committee. One member must be external to the College of Engineering. Usually, an additional member is added when an off-campus, industrial advisor is involved in the dissertation work. This off-campus project advisor may be a member of the advisory committee but does not have voting rights, unless he or she holds graduate faculty status. Students in the ABE specialization (see below) may include faculty from The Cleveland Clinic Foundation on their advisory committees. The Graduate Affairs Committee (GAC) of the College reviews the composition of the advisory committee and recommends approval or changes to attain a membership balance that is knowledgeable in all facets of the dissertation topic. Finally, an additional member may be selected by the Dean of the College of Graduate Studies.

The functions of the student's advisory committee are to approve a study plan and a dissertation topic and proposal, each of which in turn must be approved by the College GAC. The student's advisory committee monitors the progress of the dissertation, approves the dissertation, and administers the oral defense.

Examination

Individuals admitted to the program become candidates for the Doctor of Engineering degree after:

1. Completing all prescribed course work;
2. Passing the qualifying examination; and
3. Passing the candidacy examination.

The purpose of the doctoral qualifying examination is to evaluate a prospective student's mastery of the subject matters that are fundamental to the chosen engineering discipline/concentration beyond what is demonstrated by the grades obtained prior to entering the doctoral program. The student must demonstrate broad understanding of engineering science and mathematics and special knowledge and readiness to pursue further study in a specific discipline/concentration. The examination should be taken as early as possible after admission to the doctoral program usually within a year. Successful completion of this examination must be attained before the student exceeds twenty credit hours beyond the master's degree.

The student's performance on the qualifying examination determines the future course of study. Students who pass continue the program of study. Those who pass conditionally are subject to additional course work and/or re-examination (only one re-examination is permitted). Students who fail are advised to leave the program. The qualifying examination is administered by the Graduate Committee of the student's respective department. The minimum College standards require the examination to be written, open-book, with at least two testing periods of three hours each. The examination is offered in fall and spring semesters. Students should determine from their department office the exact nature of their examination and the dates on which it is offered. All students intending to take the examination are required to notify their respective department office at least four weeks before the scheduled examination date.

The purpose of the doctoral candidacy examination is to assess a doctoral student's maturity and preparation to continue independent research in a specific research topic. The examination should be taken in a period of time not to exceed two years after successful completion of the qualifying examination but students are advised to complete candidacy as soon as possible. The students are not permitted to register for Dissertation credits before successful completion of the Candidacy Exam. For the candidacy examination, the student must prepare a written dissertation proposal based on a scholarly review of literature in the dissertation area. Prior GAC approval of the student's advisory committee (on the Dissertation Proposal Approval Form) is necessary to conduct the candidacy exam. The student's advisory committee administers the doctoral candidacy examination and determines the nature and duration of the exam. The exam usually involves a public seminar followed by oral examination by the advisory committee which is closed to the public. Based on the examination results, the student either passes and has the proposal accepted with a general understanding that the successful completion of the work presented result in the award of the Doctor of Engineering degree, or fails and has the proposal rejected. A student may repeat the candidacy examination a maximum of three times.

Dissertation

The dissertation, a concentrated, in-depth, independent study of an appropriate engineering problem, is the most distinguishing feature of doctoral study. At least thirty credits of dissertation work are required, which correspond to at least one year of full-time study. Students cannot take

Dissertation credits before successful completion of the Candidacy Exam. The dissertation advisor and advisory committee, after approving a dissertation topic, monitor the student's progress and approve the final written dissertation after a successful oral defense. A maximum of ten hours of Doctoral Research may be counted as Doctoral Dissertation.

Once a student begins the dissertation study, he or she must register for a minimum of three credit hours per semester until the minimum of thirty credits is completed. After that, the student shall maintain a minimum registration of one credit hour per semester until the dissertation is completed.

The dissertation is not limited to the physical aspects of the engineering problem, but should include, where pertinent, economic considerations, environmental impact, social implications, and other interdisciplinary factors relevant to the specific topic.

In many cases, the dissertation study is conducted off-campus in an industrial or governmental setting. This type of off-campus study is defined as an internship; it gives the student an intimate and practical exposure to real problems of engineering. The student's industrial internship dissertation project must be cleared for publication by the industrial or governmental organization in which the work is done. This written clearance must be included in the dissertation proposal.

The student intern may have an off-campus advisor who may become a member of the student's advisory committee. This off-campus advisor is expected to work closely with the student and with the faculty dissertation advisor. However, the faculty dissertation advisor remains the chair of the advisory committee, ensuring that ultimate control of the dissertation resides with the University.

Applied Biomedical Engineering (ABE) Specialization

The ABE specialization of the Doctor of Engineering program, initiated in the 1998 Fall Semester, is a unique partnership between the Fenn College of Engineering at Cleveland State and The Cleveland Clinic Foundation. The Department of Chemical and Biomedical Engineering at Cleveland State administers the ABE specialization. Faculty members from both the College and the Clinic provide academic instruction and research advising in ABE specialization areas.

The ABE specialization is specifically designed for engineers who wish to pursue careers in biomedical research and development, primarily in industry. Students are expected to have a strong foundation in an engineering or closely related discipline before entering the ABE program. The high-level course work and research empower the students to become productive employees immediately after graduation. ABE graduates are expected to:

- Understand disease mechanisms;
- Improve the quality of life for patients by utilizing technology;
- Educate the next generation of biomedical engineers;
- Contribute to the reduction of health care costs by diagnosing diseases more quickly and accurately and by introducing innovative technological solutions to health care costs; and
- Address major societal health care issues by forming multidisciplinary teams of experts to formulate innovative approaches to health care.

Two unique educational features distinguishing ABE are:

1. Strong biological fundamentals, including cell and molecular biology, and
2. Inclusion of tools for success in real-world research and development.

These two features, along with highly specialized courses in specific areas of biomedical engineering, enable ABE graduates to fill the gap between engineering and medicine. Together, the Department of Chemical and Biomedical Engineering at Cleveland State University and the Department of Biomedical Engineering at the Cleveland Clinic, offer a rich spectrum of teaching and research resources designed to:

- Provide quality education and training to students in Applied Biomedical Engineering;
- Undertake state-of-the-art applied research as complementary partners;
- Enhance the capacity for biomedical engineering teaching and research at regional, state, and national levels;
- Support personnel and technical needs of biomedical companies;
- Assist biomedical companies in moving from design to successful marketing of medical devices; and
- Enhance the biomedical infrastructure in the Northeast Ohio region.

ABE Requirements

As a specialization within the Doctor of Engineering program, studies in the ABE program are governed by the regulations of the Doctor of Engineering program as stated above.

In addition to Doctor of Engineering requirements, students in the ABE specialization must:

1. Possess a working knowledge of college-level physiology and college-level cell and tissue biology. If taken at the graduate level, these may count towards the required non-engineering courses.

2. Complete six credits of core ABE electives:

Medical Devices (2 credits)
Biomedical Signal Processing (3 credits)
ABE Seminar (1 credits)

3. Complete nine credits hours of ABE electives, including at least one of the following core courses:

Biomaterials(3 credits) or
Biomechanical Engineering(3 credits)
or
Medical Imaging (3 credits)

4. Complete the graduate-level non-engineering courses required for the Doctor of Engineering degree through courses in areas such as biochemistry, cell biology, or other biomedical topics.

Cleveland State/Cleveland Clinic Cellular and Molecular Medicine Specialization (CMMS)

Depending on their research interests, applicants to the Ph.D. program may wish to consider participation in the Cellular and Molecular Medicine Specialization, an interdisciplinary initiative linking the resources of the three Cleveland State/ Cleveland Clinic joint Ph.D. programs: Regulatory Biology, Clinical-Bioanalytical Chemistry, and Applied Biomedical Engineering. Together, these units provide unparalleled opportunities for faculty, students, and staff. The Cellular and Molecular Medicine Specialization is not an independent academic program and does not replace existing doctoral programs. Students must fulfill the requirementsfor their Ph.D program.

The Cellular and Molecular Medicine Specialization forms a logical interface to coordinate collective efforts of existing programs in four ways:

1)   by creating a significant presence in the challenging and exciting new area of Cellular and Molecular Medicine;
2)   by establishing a critical mass of researchers around a topic of national scientific and applied medical interest;
3)   by realizing the commitment of Cleveland State and CCF in their long-standing collaboration to become major contributors in biomedical engineering and biomedical technology; and
4)   by expanding the existing doctoral programs beyond their present state of development.

As part of its contribution to these efforts, the Cellular and Molecular Medicine Specialization makes available several graduate assistantships to allow outstanding candidates to concentrate on their research for two years.

Doctor of

Physical Therapy

Department of Health Sciences

Health Sciences 101
(216) 687-3567
John Bazyk, Chair
Ann Reinthal, DPT Program Director
http://www.csuohio.edu/sciences/dept/healthsciences/graduate/PT/

Introduction

The emphasis of the Doctor of Physical Therapy (DPT) is to prepare competent entry-level practitioners who are well prepared to meet the demands of the current health care arena. The DPT degree replaces the current Master of Physical Therapy (MPT) degree and will expand the breadth and depth of the MPT program by emphasizing advanced skills in medical screening, differential diagnosis, critical thinking and clinical reasoning, and will arm students with an evidence base that validates clinical decisions to support the level of independent practice expected in a direct access environment. The DPT, a clinical doctorate, is differentiated from a Ph.D. by its emphasis on clinical skills and practice issues, not research. However, it is expected that the DPT graduate will be prepared to be a critical consumer of the scientific literature, support clinical research and use research data to design and manage the processes of care. The DPT program is fully accredited by the Commission on Accreditation in Physical Therapy Education.

Faculty Research

Cleveland State University faculty have research specialization in biomechanics, culture and health, epidemiology, exercise physiology, motor learning and control, neurologic disorders, and orthopedics. A state-of-the-art Motion Analysis Laboratory is available for research. Students in the program have an opportunity to work on research with faculty mentors.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Admission Information

Admission to the program is selective and limited. Admissions are conducted yearly with complete application files being due by April 1 for early admission and by July 1 for regular admission (earlier dates required for international students). In addition to meeting College of Graduate Studies requirements for admission, applicants to the program must:

- Submit a complete Application for Graduate Admissions with the Doctor of Physical Therapy Program supplemental application, OR, if an international student, submit a graduate application to the Center for International Services and Programs with the Doctor of Physical Therapy Program supplemental application, including official transcripts.
- Take the Graduate Record Exam (GRE) and have scores submitted to the Graduate College, with scores of at least 400 verbal and 500 quantitative.
- Demonstrate language proficiency for non-native English speaking applicants. The TOEFL or Michigan test is required. Applicants must have a TOEFL score of 550 or a Michigan test score of 85 to be eligible.
- Attain the minimum of a baccalaureate degree from an accredited college or university in any subject area.
- Attain a minimum grade point average overall of 3.00
- Complete all prerequisite coursework listed below. Attain a minimum prerequisite course grade point average of 3.00. All prerequisite courses must be completed with a letter grade of 'C' or better. Contact PTAdvising@csuohio.edu if you have questions about whether a specific course meets the prerequisite requirement.

    a. Physics: two course sequence with laboratories (PHY 221 + 222 or PHY 241 + 242)
    b. Chemistry: two-course sequence with laboratories (CHM 251/256 + 252/257)
    c. Cell or general Biology with laboratory (BIO 200/201); must include cell/molecular biology component
    d. Vertebrate, Human or Mammalian Physiology [junior or senior level] (BIO 422/423 or HSC 422)
    e. Psychology: one course
    f. Social/behavioral sciences: 2 courses
    g. Statistics/research design: one upper level course [junior or senior level] (PSY 311)
    h. Medical Terminology [not calculated in prerequisite grade point average] (HSC 203)
    i. Human Gross Anatomy with cadaver laboratory (HSC 457/475)
    j. Neuroscience with laboratory (HSC 476/478)
    k. General Pathology (HSC 381)

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Program of Study

The curriculum for the Doctor of Physical Therapy consists of 112 semester credits over three years and nine semesters, including:

1. Eighty academic credits in core areas
2. Twenty-six credits of clinical experience
3. Six credits of elective course work

Program Requirements

Students in the DPT program must be enrolled full-time and complete 9 semesters, including all courses listed in the following sequence. The program begins each year in January.

DPT Curriculum

Spring Year I
  DPT 630 Foundational Theory and Evidence Based Practice (2 credits)
  DPT 650 Physical Therapy Theory & Practice I (3 credits)
  DPT 642 Functional Anatomy for Physical Therapists (3 credits)
  DPT 662 Physical Therapy Interactions I (3 credits)
  DPT 681 Physical Therapy Professional Issues in Clinical Education I (2 credits)
  DPT 692 Physical Therapy Scientific Inquiry (3 credits)
Summer Year I
  DPT 664 Physical Therapy Interactions II (2 credits)
  DPT 620 Medical Screening and Imaging (3 credits)
  DPT 638 Life-span Development (4 credits)
  DPT 652 Physical Therapy Theory & Practice II (3 credits) *Fall Year I*
  DPT 607 Basic Pharmacotherapeutics (2 credits)
  DPT 654 Physical Therapy Theory & Practice III (3 credits)
  DPT 666 Physical Therapy Interactions III (2 credits)
  DPT 672 Physical Therapy Management of Complex Conditions I (3 credits)
  DPT 674 Physical Therapy Management of Complex Conditions II (3 credits)
Spring Year II
  HSC 560 Interdisciplinary Team Development (3 credits)
  DPT 756 Physical Therapy Theory & Practice IV (2 credits)
  DPT 772 Physical Therapy Management of Complex Conditions III (3 credits)
  DPT 774 Physical Therapy Management of Complex Conditions IV (3 credits)
  DPT 683 Physical Therapy Professional Issues in Clinical Education II (2 credits)
  DPT 790 Physical Therapy Administration and Management I (2 credits)
Summer Year II
  DPT 686 Applied Physical Therapy I (6 credits) *Fall Year II*
  DPT 758 Physical Therapy Theory & Practice V (3 credits)
  DPT 768 Physical Therapy Interactions IV (2 credits)
  DPT 776 Physical Therapy Management of Complex Conditions V (3 credits)
  DPT 778 Physical Therapy Management of Complex Conditions VI (3 credits)
  DPT 785 Physical Therapy Professional Issues in Clinical Education III (2 credits)
  DPT 793 Physical Therapy Administration and Management II (2 credits)
Spring Year III
  DPT 786 Applied Physical Therapy II (5 credits)
  DPT 788 Applied Physical Therapy III (5 credits)
Summer Year III
  DPT 844 Health Behavior and Social Responsibility (3 credits)
  DPT 872 PT Management of Complex Conditions VII (2 credits)
  DPT 887 PT Professional Issues in Clinical Education IV (2 credits)
  DPT 895 Administration and Management III (2 credits)

Fall Year III

DPT 886 Applied Physical Therapy IV (5 credits)
DPT 888 Applied Physical Therapy V (5 credits)

Note: Students must also complete a minimum of 6 credit hours of elective course work during the DPT Program.

Doctor of Philosophy in

Regulatory Biology

A joint program with the Cleveland Clinic

Department of Biological, Geological, and Environmental Sciences

Science Building Room 219
(216) 687-2440
http://web.bges.csuohio.edu/

Anton A. Komar, Ph.D. and Crystal M. Weyman, Ph.D.: Chair and Graduate Program Directors

Graduate Programs

The Department of Biological, Geological, and Environmental Sciences (BGES) offers programs of course work and research leading to the Master of Science degree in Biology, the Master of Science degree in Environmental Science, and the Doctor of Philosophy in Regulatory Biology. The Doctor of Philosophy may include an optional Cellular and Molecular Medicine Specialization. These programs are open to full-time and part-time students.

Department faculty and staff members of The Lerner Research Institute (LRI) of the Cleveland Clinic (CC) work in cooperation to offer graduate training in a broad range of biological sciences. For example, molecular and cell biologists at both Cleveland State and the LRI study regulation of signal transduction and gene transcription in cell division, programmed cell death, and cell differentiation in the context of normal development and disease states that include cancer, cardiovascular disease, and autoimmune and neurological disorders. Other Cleveland State faculty members participate in several programs focusing on local ecological and environmental issues that provide opportunities for graduate research. These include the Cuyahoga River Watershed Project and the OhioView consortium on remote sensing.

As a joint venture with the Cleveland Clinic's Lerner Research Institute, the doctoral program provides a unique opportunity for students to conduct research at one of the nation's top medical-research institutes. The LRI is directly connected to the medical facilities of the CC, enabling basic-research scientists to address clinically relevant research questions, collaborate with medical practitioners, and utilize clinical material for research. The optional Cellular and Molecular Medicine Specialization is designed to capitalize on this resource.

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Facilities

Departmental facilities include a large animal-care facility, cold rooms, darkrooms, fluorescent and light microscopes, environmental chambers, a greenhouse, and an assortment of computers with Internet access. The department also utilizes space in field stations in the Cuyahoga Valley National Park and in Belize. Most CC faculty are located in the new Research and Education Building of the Lerner Research Institute, with its state-of-the-art facilities, including a vivarium and core facilities for biotechnology, transgenic mice, flow cytometry, microscopy, protein sequencing, and hybridoma work.

Career Information

Graduates are employed in research, teaching, and administrative positions in private industry, hospitals, governmental agencies, environmental action groups, and colleges and universities in the Cleveland area, throughout the United States and abroad. The graduate program also attracts established teachers, research scientists, and management and staff in diverse businesses with a biological, environmental, or biomedical focus. The graduate program is open to full-time and part-time students as well as to non-degree students who are preparing themselves for entry into degree programs or are seeking to keep abreast of new developments in their fields of interest.

Admission Requirements

Applicants must meet College of Graduate Studies admission requirements regarding grade-point average, Graduate Record Examination (GRE) scores, and TOEFL results. Applicants must have submitted official transcripts for all undergraduate and any previous graduate study, the GRE General Test scores, at least two letters of recommendation, and a statement of personal career goals and research interests. Applicants whose native language is not English must demonstrate English-language proficiency by submitting official scores for the TOEFL, the Michigan Test, or an equivalent examination, unless they hold a degree from a U.S. institution. (See the section on International Students in this Catalog.)

Applicants must have completed a minimum of one semester of statistics or calculus, one semester of organic chemistry, one semester of physics, and have a strong background in biology that is essentially equivalent to the Cleveland State undergraduate biology core curriculum. Questions should be directed to the BGES Graduate Program Director.

Submit application materials to the Graduate Admissions Office (U.S. citizens and permanent residents) or the Center for International Services and Programs (international applicants and current visa holders).

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Graduate Assistantships/ Fellowships

Full-time graduate students pursuing thesis or dissertation research may be supported through teaching assistantships or fellowships by the department for a period that, as a rule, should not exceed three years for the M.S. or five years for the Ph.D. This support includes tuition and a stipend. Full-time teaching assistants are expected to work twenty hours per week and must enroll as full- time students (currently nine credit hours, including research credits). Research assistantships may be available through the research grants of individual faculty. A limited number of graduate tuition waivers, which carry a service requirement of ten hours of work per week, may be awarded to students with superior credentials, as funds are available. Requests for assistantships should be indicated on the Application for Graduate Admission or by letter to the BGES Graduate Program Director. Awards are competitive, based on all application materials. Initial decisions usually are made based on completed applications on hand in March for fall semester and, if assistantships are available, in November for spring semester. Required minimums for grade-point average, GRE scores, and TOEFL score are higher than those for admission to the program. In order to hold a teaching assistantship, applicants whose native language is not English must be assessed and certified as proficient in spoken English.

Cleveland State/Cleveland Clinic Cellular and Molecular Medicine Specialization

Depending on their research interests, applicants to the Ph.D. program may wish to consider participation in the Cellular and Molecular Medicine Specialization, an interdisciplinary initiative linking the resources of the three Cleveland State/ Cleveland Clinic joint Ph.D. programs: Regulatory Biology, Clinical-Bioanalytical Chemistry, and Applied Biomedical Engineering. Together, these units provide unparalleled opportunities for faculty, students, and staff.

The Cellular and Molecular Medicine Specialization is not an independent academic program and does not replace existing doctoral programs. BGES students must fulfill the requirements for the Ph.D. in Regulatory Biology. The Cellular and Molecular Medicine Specialization forms a logical interface to coordinate collective efforts of existing programs in four ways: 1) by creating a significant presence in the challenging and exciting new area of Cellular and Molecular Medicine; 2) by establishing a critical mass of researchers around a topic of national scientific and applied medical interest; 3) by realizing the commitment of Cleveland State and Cleveland Clinic in their long-standing collaboration to become major contributors in biomedical engineering and biomedical technology; and 4) by expanding the existing doctoral programs beyond their present state of development. As part of its contribution to these efforts, the Cellular and Molecular Medicine Specialization makes available several graduate assistantships to allow outstanding candidates to concentrate on their research for two years. Additional details can be obtained from the BGES Graduate Program Director or from the Director of the Cellular and Molecular Medicine Specialization.

Common Degree Requirements

Before registering for courses, all newly admitted students must meet with the BGES Graduate Program Director. All students are required to enroll in the BGES Graduate Orientation course (BIO 500) and to attend departmental seminars. Students also must comply with all College of Graduate Studies requirements and procedures. Minimum grade-point averages exist for particular degree options, as described below. A student who receives two grades of B– or one grade of C or below is subject to review by the BGES Graduate Committee; dismissal from the Biology graduate program may be recommended. Complete, current program requirements and any changes are described in the BGES Graduate Program Handbook, available from the BGES Graduate Program Office.

Doctor of Philosophy Degree in Regulatory Biology

The Ph.D. program provides a comprehensive background in biological science with a focus on regulation in biological systems ranging from the molecular to the ecosystem level. Cleveland State University and the Cleveland Clinic offer the program jointly. Besides course work, a comprehensive exam, and teaching experience, the degree requires a written dissertation, based on original scientific research of sufficient quality for publication in a peer-reviewed scientific journal.

Requirements

1. Selection of a Major Advisor and an Advisory Committee. The Major Advisor typically is the primary supervisor and source of support for the student's dissertation research. Together, the Major Advisor and Advisory Committee supervise the student's plan of study and research proposal, monitor the student's progress, certify that requirements have been met in a timely fashion, and process all petitions, progress reports, and other communications with the BGES Graduate Committee.

2. Completion of a minimum of 90 credit hours with a minimum grade-point average of 3.0 distributed as follows:

  a. **Total course work and research***
     Courses (minimum) 32 credits
     Research (minimum) 40 credits
     Additional courses or research 18 credits
     Total beyond the Bachelors (minimum) 90 credits*
     * For students with a Masters essentially equivalent to the CSU M.S. in Biology, the minimum number of credits would be 60 credits past the Masters, including at least 20 credits of CSU graduate course work, including Orientation I, Departmental Seminar (2x) and Graduate Seminars (4x).

  b. **Required courses:** Each Ph.D. student must complete BIO 700 and BIO 702 (Graduate Orientation), BIO 704 (Biological Chemistry), BIO 740 (Biostatistics) or an equivalent graduate statistics course, and BIO 784 (Writing and Editing Grant Proposals) or an equivalent.

  c. **Seminars:** Each Ph.D. student must complete at least four seminar courses (BIO 888) and complete two credits of BIO 884 (Research Seminar).

  d. **Remaining courses:** Each Ph.D. student formulates an individual plan of study in consultation with the Major Advisor and the Advisory Committee. This includes areas of course-work concentration as well as any additional elective courses needed to fulfill degree requirements described above.

e. **Research: T**he student's individual research project should be of sufficient quality to be published in a refereed scientific journal.

3. Satisfactory fulfillment of a teaching requirement consisting of the following:

   a. Two one-hour lectures under the supervision of a professor in (preferably) one introductory and one advanced course.
   b. Service as a teaching assistant is not required, but such service in one lower- division and one upper-division laboratory is strongly recommended for students pursuing an academic career.

4. Admission to candidacy. Satisfactory completion of the Doctoral Candidacy Examination admits the student to candidacy for the Ph.D. This oral examination takes as its point of departure an original research grant proposal written by the student in the general area of the student's research. The intent of the examination is to provide a fair appraisal of the student's general knowledge and understanding of biology and in-depth knowledge of the areas relevant to the doctoral research and cognate areas indicated by the student's course work and plan of study. Additional study or course work may be required as a result of this examination. Two unsuccessful attempts to pass this examination shall result in a recommendation for dismissal from the program.

5. Completion of at least one year (i.e., three consecutive terms) in residence as a full-time student (as defined by the University) after admission to candidacy. Degree candidates must be continuously enrolled for a minimum of one credit hour from admission to candidacy until graduation.

6. **Exit requirements:**

   a. Presentation of the dissertation research at a departmental seminar.
   b. Defense of the dissertation before a faculty committee. Two unsuccessful attempts to defend the dissertation shall result in a recommendation for dismissal from the program.
   c. Submission of the approved dissertation together with an article or manuscript based on the dissertation, in a format suitable for submission to a refereed scientific journal.

Doctor of Philosophy in

Urban Education

College of Education and Human Services

Rhodes Tower 945
(216) 687-4697
http://www.csuohio.edu/coehs/departments/phd/

Joshua Gisemba Bagaka's, Doctoral Program Director

Programs of Study

Urban Education: Administration
Urban Education: Counseling
Urban Education: Counseling Psychology
Urban Education: Leadership and Life-Long Learning
Urban Education: Learning and Development
Urban Education: Policy Studies

Introduction

The Ph.D. in Urban Education program develops the leadership skills of advanced graduate students to prepare them to affect change in urban educational settings. It is one of the few education doctoral programs in the nation in which a special focus on urban education is infused across different specializations. The conceptual framework and primary focus of the program is preparing the urban educational leader to affect change in the educational environment. The five primary knowledge bases of the Ph.D. program are research skills, an urban perspective, the social context of urban education, the urban learner, and organizational change and development. Concepts from education, urban policy planning, law, economics, psychology, public administration, sociology, political science, and organizational development constitute the core content in the urban educational context that underpins study in the specialty areas. Graduates of the program conduct research and play leadership roles in the areas of instruction, counseling, administration, and policy making in:

- Schools
- Community colleges
- Colleges and universities
- Business and industry
- Allied health organizations
- Social and community agencies

- Government

Doctoral students acquire academic knowledge, research, and technical skills through their close relationship with the faculty and with their doctoral student support group. Special features of the Urban Education doctoral program include:

- Cohort of candidates
- Urban laboratory
- Research emphasis
- Interdisciplinary core
- Emphasis on organizational change
- Advanced study in an area of specialized educational practice

The program consists of:

- Core seminars (22 credits)
- Research methodology seminars (minimum of 10 credits)
- Specialized area of study (minimum of 20 post-master's credits)
- Dissertation in the area of specialization (minimum of 15 credits)

In the core seminars, a group of students remain intact as a continuously enrolled unit for two years of intensive study and discussion. The continuing intellectual association and support of this group meets the residency requirement of the doctoral program. The research methodology seminars provide quantitative and qualitative research skills essential to the creation of new knowledge and the solution of practical education problems. Courses in the specialized areas provide opportunities for advanced study of administration, counseling, teaching, and policy development in the urban context. The dissertation component follows a traditional model, adhering to the scholarship requirements of research for the Doctor of Philosophy degree.

Faculty Research and Publications

The faculty in the College of Education and Human Services has pursued a wide variety of research, in seven major areas:

1. Equity issues, including race and ethnicity, gender, and socioeconomic differences.
2. Educational/developmental consequences for special needs/at risk children and youth populations frequently associated with urban environments and the development of educational programs that address these needs.
3. Learning needs and programming for adults in contemporary, post-industrial urban life.
4. The management, organizational development, and reform of educational institutions, especially urban public schools.
5. Counseling and mental health issues of urban populations in the face of changing health care policy.
6. The process of policy development, school reform, and implementation.
7. School effectiveness research, including school, teacher, and community practices that

impact students' educational outcomes.

The faculty has been recognized for scholarly publications in more than eighty journals in the core and specialization areas. The National Council for Accreditation of Teacher Education (NCATE) accredits the College of Education and Human Services, and its programs meet the requirements of the Ohio Department of Education.

[Current faculty information can be located on the Cleveland State University Faculty Profile page.](#)

Financial Assistance

A limited number of graduate assistantships are available for students who wish to pursue full-time study. Research and teaching assistantships require twenty hours of service per week (see the section on Graduate Assistantships in this Catalog). All graduate assistants must enroll for at least nine graduate credits per semester. Tuition Grant awards are also available for those students who desire to work no more than ten hours a week. Applications for assistantships and tuition grants must be made directly to the Office of Doctoral Studies, College of Education and Human Services, Rhodes Tower, Room 945.

Admission Information for

Counseling Psychology Specialization

Application Deadline January 15th

The Doctoral Program in Urban Education seeks applications for the specialization in Counseling Psychology from individuals who have a master's degree in counseling or a closely related field, research experience, experience in an applied setting, a strong academic record, above average GRE scores, good communication skills, and strong letters of recommendation (including letters from graduate faculty). An undergraduate GPA of 2.85, a graduate GPA of 3.5, and combined GRE scores of 1000 are preferred.

Admission decisions also are influenced by space limitations, students' evidence of commitment and interest in urban multicultural issues, and a match between student interests and faculty expertise. Approximately six Counseling Psychology doctoral students will be admitted each year.

Application Materials

- Graduate Application
- Resume
- Personal Statement
- Official copies of all academic transcripts

- Official GRE score reports (Scores must be within the past 5 years. Only the general test is required. The Psychology Subject Area Test is not required.)
- 3 Letters of recommendation (at least one must be from a faculty member from previous graduate work)

Personal Statement

A personal statement regarding your professional interests and goals should be included with your application. This statement should not exceed 3 pages single spaced. We are interested in knowing what attracted you to the field of counseling psychology and to doctoral program at Cleveland State University. Describe your experiences in applied settings (e.g., hotline experience, residential treatment staff, field placements) and your research experiences (e.g., assisting with a faculty member's research, professional presentations, publications, or master's thesis). Please describe your goals for graduate study, as well as your goals for your professional career. Be specific in describing your interests in research and practice (e.g., specific settings and/or populations).

Prerequisites for Admission

Applicants to the counseling psychology specialization must have a master's degree in counseling or a closely related field. IN addition, the following master's level prerequisite courses or their equivalents are required and completed be taken either prior to beginning doctoral study or concurrently with doctoral studies. Please refer to the section on course descriptions in this catalog.

CNS 604 Social and Cultural Foundations
CNS 611 Appraisal in Counseling
CNS 617 Ethical and Legal Issues in Counseling
CNS 620 Laboratory in Counseling Techniques
CNS 622 Theories of Counseling
CNS 623 Group Counseling
CNS 624 Career Development
CNS 685 Internship in School Counseling (2 semesters) or CNS 686 Practicum/Internship in Community Agency Counseling and CNS 687 Advanced Internship in Community Agency Counseling
CNS 706 Psychopathology and Diagnosis for Counselors
EDB 601 Educational Research
ALD 603 Lifespan Development

Review of Applications

Applications will be reviewed by the Counseling Psychology Core Faculty who will select the top candidates to invite to campus for an interview. Invitations for interviews will be made by February 1st of each year. Interviews will be conducted by 4-5 counseling psychology core

faculty members who will then make recommendations for admission, and then submit to the doctoral studies committee of the College of Education and Human Services for final approval.

Offers of Admission will be made by March 15th of each year.

Students must accept or decline offers in writing by April 15th of each year.

Admission Information for

Ph.D. in Urban Education other specializations

The Doctoral Program admits a class of twenty students each year that proceeds as a cohort. Applicants must submit:

1. A completed admission application form
2. A check for the $30 application fee
3. Official transcripts from all colleges and universities previously attended
4. Official GRE test scores
5. A current curriculum vita
6. A statement of goals and objectives
7. Two letters of recommendation. At least one should be from a college professor familiar with the applicant's graduate-level academic ability.

Based on completed applications, a pool of candidates is invited to participate in further screening through an interview process with three members of the graduate faculty. To be invited for an interview, the applicant must have a minimum master's grade-point average of 3.25 and meet three of the following five criteria:

1. A minimum combined score of 1,000 on the quantitative and verbal sections of the GRE;
2. A minimum rating of 4.0 in the analytical writing section of the GRE;
3. Demonstrated research experience through a thesis or research project at the master's level or an authored publication in a refereed research journal;
4. Successful completion of at least two graduate research courses with a grade of B or better, prior to admission to the doctoral program
5. Sustained professional experience (a minimum of three years) and success with urban economic, social, political, and/or educational issues as evidenced by the candidate's portfolio and/ or references. This can include evidence of extensive and successful leadership, policy or pedagogy innovations, teaching, or therapeutic performance. Applicants may submit additional supporting materials to document urban experience.

If a candidate who meets three of the above five criteria has a combined score below 950 on the verbal and quantitative sections of the GRE, the committee may recommend, upon acceptance, additional course work prior to beginning the doctoral program.

The application deadline is the first Monday in February. Students are admitted fall semester only. Submit application materials to the Graduate Admissions Office, Rhodes Tower West, Room 204, telephone (216) 687-5599. The Graduate Admissions Office processes materials and forwards them for review to the Education Doctoral Studies Program Director.

The Doctoral Studies Committee makes an admission recommendation to the Graduate Admissions Director based on the applicant's ability to meet the screening criteria stated above and the results of the interview. The Graduate Admissions Director transmits the admission action and supporting materials to the applicant.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

Each student prepares a program of study with a faculty advisor. Components are as follows:

Required Pre-requisite (if not taken previously):

ALD 607 Adult Education in a Changing Society
(Should be taken during the first year or summer before second year)

Core Seminars/Courses Required

(22 credits)
EDU 803 The Life Cycle: Development and Learning (4 credits)
EDU 805 Cultural Foundations of Education I: Social Perspectives (4 credits)
EDU 806 Cultural Foundations of Education II: Race and Ethnicity (2 credits)
EDU 809 Urban Education: Organizational Change and Development (4 credits)
UST 716 Systems and Processes of Policy Development (4 credits)
UST 800 Urban Theory I (4 credits)

Research Core Required

(14 credits)
EDU 800 Advanced Research Design and Measurement (3 credits)
EDU 801 Inferential Statistics and Hypothesis Testing (3 credits)
EDU 807 Introduction to Qualitative Research in Education (4 credits)
EDU 808 Advanced Qualitative Research (4 credits)
or
EDU 802 Qualitative Research

Specializations

(20 credits minimum)
Requirements for specializations are listed under their heading below.

Total Credit Hours

(67 credits minimum)

Foreign Language/Computer Use Requirement

Each student is required to demonstrate proficiency in a foreign language or a computer language. Information regarding procedures for demonstrating proficiency may be obtained from the Office of Doctoral Studies. Procedures are detailed in the Urban Education Ph.D. Student Handbook.

Advancement to Candidacy

Eligibility for candidacy is determined on the basis of successful performance on written comprehensive examinations. The examinations are to be taken following the completion of the core and research seminars/courses, and after the completion of at least twelve credit hours in the area of specialization.

Students who fail to attain the required level of competence on the comprehensive examinations may retake them, but only after completing additional preparatory course work and/or study. The core and research examinations are administered every semester. Specialization examinations are administered in Fall and Spring semesters.

Exit Requirements

All candidates must complete a dissertation (15 credits minimum) that adds to the research knowledge about urban education. The student begins prospectus development in the second year of the program in concert with the Dissertation Advisor. A committee comprised of the advisor and four additional faculty members is named when the student is advanced to candidacy. The process includes the following steps:

  1.   Prospectus/Specialization Hearing. When the candidate completes a dissertation prospectus to the advisor's satisfaction, the Dissertation Committee conducts an oral examination on the prospectus and the area of specialization.

  2.   When the candidate has completed the dissertation, a final oral examination is held before the Dissertation Committee. Acceptance of the dissertation and recommendation for conferring the Ph.D. degree is contingent upon majority Committee approval. If the candidate is not initially successful, the oral examination may be repeated once after appropriate revision of the dissertation.

     EDU 895 Dissertation Research (before approved prospectus)

EDU 899 Ph.D. Dissertation (after approved prospectus)

School Administration

The School Administration specialization requires as a prerequisite a master's degree in administration and leads to a state license for various administrative positions.

Required (8 credits)

ADM 831 Implementing Public Policy in Schools and Universities (4 credits)
ADM 889 Advanced Seminar in Administration (4 credits)
At least 12 additional credit hours selected from courses such as:
ALD 606 Modern Higher Education in a Changing Society (4 credits)
ALD 645 Organizational Behavior and Change (4 credits)
ADM 618 Staff Personnel Administration (2 credits)
ADM 642 Collective Bargaining and Contract Management (2 credits)
ADM 643 School Finance and Economics (4 credits)
ADM 652 School Business Management and School Facilities (4 credits)
ADM 674 Special Education Law (4 credits)
ADM 676 Clinical Supervision and Professional Development (4 credits)
ADM 677 Legal and Policy Issues in Education (4 credits)
ADM 811 The School Superintendency (4 credits)
ADM 830 Evaluating Educational Policy Making at the Federal and State Levels (4 credits)
ADM 833 Seminar in Urban Education (4 credits)

Counseling

The Counseling specialization requires as a prerequisite a master's degree in counseling or a closely related field. It prepares individuals for leadership positions in community agencies, school or college counseling, and student personnel settings and provides the course work for Clinical Counselor licensure, if the student is a Licensed Professional Counselor.

Required (11 credits)

CNS 712 Theories of Personality and Counseling (4 credits)
CNS 781 Internship in Counseling (3 credits)
CNS 888 Research and Evaluation in Counseling (4 credits)
Complete nine additional credit hours from the following:

Clinical Counseling Track

CNS 633 Women and Mental Health (3 credits)
CNS 670 Counseling Children and Adolescents (3 credits)
CNS 702 Individual Intelligence Testing* (3 credits)
CNS 703 Personality Assessment for Counselors* (3 credits)
CNS 706 Psychopathology and Diagnosis for Counselors* (4 credits)
CNS 709 Psychopharmacology for Counselors* (3 credits)
CNS 738 Family Counseling* (3 credits)
CNS 771 Using the Current Diagnostic and Statistical Manual of Mental Disorders (2 credits)
CNS 783 Internship in Counseling (3 credits)
*These or equivalent courses may be required for the Professional Clinical Counselor License.
or

Pupil Personnel Administration Track

ADM 613 School Law (4 credits)
ADM 614 Administration Principles and Practice (4 credits)
ADM 615 Instructional Leadership and Pupil Personnel Administration (4 credits)
ADM 618 Staff Personnel Administration (2 credits)
ADM 643 School Finance and Economics (4 credits)
ADM 676 Clinical Supervision and Professional Development (4 credits)

Prerequisites:

The counseling specialty is built on a master's degree in counseling. Students entering the program with degrees completed some time ago may need additional prerequisites if they plan to seek the PCC license upon degree completion. Students with master's degrees not in counseling

also must meet master's- level course work requirements for the PCC as a part of their Ph.D. program.

Counseling Psychology

Counseling Psychology requires prior Master's study in counseling, psychology, or a closely related field. This specialization trains counseling psychologists who have the requisite knowledge base and therapeutic skills for entry into the practice of professional psychology and competent practice within a multicultural diverse urban society, and will contribute to and/or apply the scientific knowledge base of psychology using skills in research methods. This curriculum meets academic prerequisites for eligibility for licensing as a psychologist in the Sate of Ohio.

Required (52 credits)

General Psychology Core

(15 Credits)

CPY 663 Bio Bases of Psychology (3 credits)
CPY 667 History of Psychology (3 credits)
CPY 668 Social Psychology (3 credits)
CNS 712 Theories of Personality and Counseling (3 credits)
EDU 811 Seminar in Cognitive and Intellectual Development (3 credits)

Professional Core in Counseling Psychology

(37 Credits)

CNS 665 Professional Issues (3 credits)
CNS 702 Individual Intelligence Testing (3 credits)
CNS 703 Personality Assessment (3 credits)
CNS 738 Family Counseling (3 credits)
CNS 825 Advanced Career Development: Theory and Practice (3 credits)
CNS 826 Fundamentals of Supervision and Consultation (4 credits)
CNS 888 Research & Evaluation in Counseling (4 credits)
CNS 780 Doctoral Practicum in Counseling Psychology I (6 credits)
CNS 781 Doctoral Practicum in Counseling Psychology II (6 credits)
CNS 782 Predoctoral Internship in Counseling Psychology (2 credits)

Leadership and Life- Long Learning

The Leadership and Life-Long Learning specialization accepts applicants from a broader range of master's study and prepares them for administrative roles in higher education and adult education, including human resource development and community agencies.

Required (20 credits)

ALD 800 Leading Continuing Education for Professionals (4 credits)
ALD 801 Adult Learning Theory and Research (4 credits)
ALD 700 Multicultural Foundations of Urban Adult Education (4 credits)
ALD 802 Advanced Seminar in Adult Learning & Development (4 credits)
ALD 889 ALD Research Seminar and Proposal Writing (4 credits)

Electives (at least 4 credits)

Students choose, in consultation with advisors, at least four additional credit hours in the areas of adult learning and development, human resource development, planning/budgeting, leadership, and professional ethics.

Learning and Development

The Learning and Development specialization accepts applicants interested in the improvement of instruction through understanding individual differences in learners and learning environments with an emerging emphasis on technology. Graduates pursue teaching and instructional leadership roles in K-12, teacher, higher education, and adult education settings.

Required (12 credits)

EDU 811 Intellectual Variability: Seminar in Learning and Development (3 credits)
EDU 812 Personal and Social Factors: Seminar in Learning and Development (3 credits)
EDU 813 Differentiating Intervention: Learning and Development Settings (2 credits)
EDB 711 Educational Evaluation and Innovation (4 credits)

Electives

At least eight additional credit hours approved by the advisor.
Students in the Learning and Development track may also specialize in a specific curricular area.

Policy Studies

Policy Studies accepts applicants with a broader range of master's-level study and prepares them for policy-leadership and school-reform roles in a variety of educational settings.

Required (at least 10 credits)

EDU 814 Urban Educational Policy (4 credits)

And two of the following courses:

EDB 604 Social Issues and Education (3 credits)
EDB 606 Philosophy of Education (3 credits)
EDB 608 School and Society in the American Past (3 credits)
EDB 609 Comparative and International Education (3 credits)
EDB 612 Curriculum Theory and Instruction (3 credits)
EDB 671 History of Minority Education (3 credits)
EDB 693 Special Topics in Curriculum and Foundations (1 to 4 credits)
EDB 711 Educational Evaluation and Innovation *(4 credits)
ADM 643 School Finance and Economics (4 credits)
ADM 677 Legal and Policy Issues in Education (4 credits)
*recommended for all who plan to lead or evaluate programs

At least 10 additional hours selected from policy foundations, urban affairs, history, economics, and/or law.

Doctor of Philosophy in

Urban Studies and Public Affairs

Maxine Goodman Levin College of Urban Affairs

Urban Affairs 231
(216) 687-2136
http://urban.csuohio.edu/academics/graduate/phd/

William M. Bowen, Ph.D., Program Director

Areas of Study

Communication
Environmental Policy and Administration
Housing and Neighborhood Development
Public Administration
Urban Economic Development
Urban Human Services Administration

Introduction

The Ph.D. program in Urban Studies and Public Affairs integrates urban-related knowledge from a number of academic disciplines. Through disciplinary integration, doctoral students analyze, design, test, and evaluate strategies for urban policy-making and management within the public and private sectors. The program is offered jointly by Cleveland State University and the University of Akron. Students may matriculate at either campus and schedule course work at both institutions to take advantage of the diversity of faculty backgrounds and approaches.

Ph.D. Mission and Goals

The mission is to prepare scholars for research, teaching, and reflective practice in positions related to urban studies and public affairs in universities or public-policy organizations. The goals of the program are:

- To graduate scholars who possess a strong methodological foundation within the field of urban studies and public affairs together with an in-depth knowledge that enables them to recognize, identify, and articulate the frontiers of scholarship in a specialization.
- To graduate scholars able to construct, execute, and present scholastically sound, independent research of either a theoretical or applied nature that expands the frontiers of knowledge within the field of urban studies and public affairs.

For updated Ph.D. program information, visit http://urban.csuohio.edu/academics/graduate/phd/.

Faculty

Current faculty information can be located on the Cleveland State University Faculty Profile page.

Financial Assistance

The Ph.D. program awards graduate assistantships on a competitive basis to students with superior academic records. Graduate assistantships are designed both to serve the needs of the Levin College and to assist in the professional development of the student. Assistantships are regarded as apprenticeships, during which students interact with academics and practitioners through classroom and applied instruction, research, and administrative experiences to become more effective members of their fields. Graduate assistants are required to spend twenty hours per week in their apprenticeships.

Admission Information

Students are admitted to the Ph.D. program in Urban Studies in the fall semester only. Students entering the program with a master's degree are expected to have a grade-point average of 3.5 or better. Both undergraduate and graduate grade-point averages are considered in determining eligibility for admission. Cleveland State also permits students with bachelor's degrees to enter the program. Bachelor entry-level students must have achieved at least a 3.5 grade-point average in their undergraduate work.

Applicants are expected to have earned a minimum combined score of 1,050 on the quantitative and verbal sections of the Graduate Record Examination (GRE), plus at least a 4.0 on the analytical writing section. In addition to the application requirements of the College of Graduate Studies, an applicant must submit two letters of recommendation, a writing sample, preferably a recently graded research paper, and a statement of purpose for seeking a Ph.D. in Urban Studies and Public Affairs. The application deadline is January 15. Submit all materials to the Graduate Admissions Office.

Non-native English speakers who do not have an earned bachelor's degree or higher from an accredited U.S. institution must demonstrate proof of English-language proficiency as indicated in this bulletin under "Admission Requirements for International Students and Permanent Residents".

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Degree Requirements

Courses

Depending on previous graduate course work, Ph.D. students must complete some or all of the following master's level prerequisite courses before enrolling in core or specialization courses. Those entering with a bachelor's degree must complete all prerequisites. Students must earn a grade- point average of 3.0 or better in the following prerequisite courses:

  PAD 600 Introduction to Public Administration or PAD 617/PSC 605 Public Administration and the Political Process or COM 630 Mass Communication Theory (Communication track students)
  UST 601 Applied Quantitative Reasoning I
  UST 602 Applied Quantitative Reasoning II or COM 512 Communication Research Methods (Communication track students)
  UST 603 Public Finance and Economics
  UST 605 Urban Spatial Structures
  UST 616 Systems and Processes of Policy Development or PSC 636 Policy Development and Evaluation

Following completion or waiver of prerequisites, each student is required to:

  1.   Complete a common core of four courses with a grade of B or better in each course. The core courses are:

  UST 800 Urban Theory I
  UST 802 Frameworks of Inquiry
  UST 803 Quantitative Research Methods I
  UST 806 Urban Research Methods

  2.   Complete a concentration of twenty hours plus two electives. Available concentrations or areas of specialization include:

  a.   Communication
  b.   Environmental Policy and Administration
  c.   Housing and Neighborhood Development
  d.   Public Administration
  e.   Urban Economic Development
  f.   Urban Human Services Administration

 For more information and specific curriculum plans, please refer to the PhD program handbook, online at http://urban.csuohio.edu/academics/graduate/handbooks/phd_handbook.pdf.

Comprehensive Examination

Upon completion of all course work, students must take a comprehensive examination in the major area of specialization. Upon successful completion of the examination, a student is eligible to begin dissertation research.

Dissertation

The dissertation demonstrates the student's ability to plan and carry through to successful completion a comprehensive research project. The dissertation should contribute to society's knowledge about the area of specialization chosen.

Juris Doctor/Business Administration, Master of

[Program details can be found in Master of Business Administration program description.](#)

Juris Doctor/Environmental Science, Master of Science in

[Program details can be found in Master of Science in Environmental Science program description.](#)

Juris Doctor/Environmental Studies, Master of Arts in

For program details can be found at the program's web site http://urban.csuohio.edu/academics/graduate/jdma/jdmaes.html

Juris Doctor/Public Administration, Master of

Program details can be found at the program's web site http://urban.csuohio.edu/academics/graduate/jdma/jdmpa.html

Juris Doctor/Urban Planning Design and Development, Master of

Program details can be found at the program's web page http://urban.csuohio.edu/academics/graduate/jdma/jdmupdd.html

Nursing, Master of Science in and Master of Business Administration, Master of

[Program details can be found in Master of Science in Nursing program description.](#)

[Program details can be found in Master of Business Administration program description.](#)

Graduate Certificate in

Adult Learning and Development

Elice E. Rogers, Certificate Program Coordinator

The program draws on the expertise and knowledge of adult educators and professionals in agencies and businesses throughout the community, as well as other faculty and staff members from Cleveland State University.

Introduction

The Adult Learning and Development (ALD) certificate program is designed to provide present and future adult educators with theories, competencies, and knowledge that will help them plan, teach, and administer programs for a diverse population of adult learners in a variety of settings, including, but not limited to, technical/vocational colleges; proprietary schools; four-year colleges; literacy, ABE, and GED programs; and training programs within health care, business, and industrial settings.

The ALD certificate program provides an avenue for meeting the continuing professional education requirements often required of professional adult educators. Additionally, the certificate program presents a challenging course of study for adult educators who seek further education but not necessarily a graduate degree.

Today's adult educator must possess vision, theory, and practical skills to promote active learning and reflection among a diverse population of adult learners. The ALD certificate program provides present and future adult educators with an awareness of the issues facing them in a variety of learning environments. Theories, practical applications, instructional design, philosophy, and program planning and administration are emphasized through the courses in the program.

Faculty Research

Faculty research interests reflect the interdisciplinary nature of the field. Recent work includes a number of books and book chapters, articles in professional journals, and presentations at professional meetings. Faculty members belong to associated professional organizations, such as the American Association for Adult and Continuing Education, the Ohio Association for Adult and Continuing Education, the Commission of Professors of Adult Education, the American Educational Research Association, the American Association for Higher Education, and the American Society for Training and Development.

Career Information

Learning is a lifelong process. Today's rapidly changing world requires adults to learn new ways of doing their jobs and prepare for career changes. This has resulted in a demand for qualified adult educators to assist adult learners as they cope with the effects of ever-changing technologies, organizational development, and new career requirements. Adult educators work in a variety of settings, such as Adult Basic Education (ABE) or General Educational Development (GED) programs; two-and four-year colleges, universities, and technical institutions; ESL and literacy programs; continuing education, training, and development programs in human resource development departments in business and industry; cooperative extension services; health care organizations; social service agencies; continuing professional development; and community development. This list reflects the growth of the adult education field. The need for well-prepared professional adult educators to help adults learn is crucial to businesses, agencies, and institutions.

Admission Information

Prospective students should apply for graduate admission as a "certificate" student to register for classes. They must meet the graduate certificate admission requirements detailed in the Admissions section of this catalog. With program permission, non-degree graduate students may also enroll in the courses noted below, but non-degree graduate students cannot earn a University graduate certificate. Degree-seeking graduate students who hold regular admission status may be admitted to this certificate program. Credits earned for the certificate may be applied toward a graduate degree as approved by the student's graduate program director and in keeping with the policies of the College of Graduate Studies.

Application materials should be submitted to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

(18 credit hours)
The certificate program requires a total of eighteen credit hours: a fifteen-credit core of required courses and three credits of elective course work chosen by the student with approval from program faculty.

Core Courses

ALD 605 Psychology of the Adult Learner (3 credits)
ALD 607 Adult Education in a Changing Society (4 credits)
ALD 645 Organizational Behavior and Change (4 credits)
ALD 663 Planning and Implementing Programs for Adult Learners (4 credits)

Elective

Course work chosen by the student with faculty approval (3 to 4 credits).

For further information, contact:
Education Student Services Center
Cleveland State University
2121 Euclid Avenue
Rhodes Tower 1401
Cleveland, OH 44115
Phone: (216) 687-4625 Fax: (216) 687-9284

Graduate Certificate in

Advanced Study in Bioethics

Allyson Robichaud, Certificate Program Coordinator

Introduction

The Philosophy Department offers a course of study leading to a Graduate Certificate in Advanced Study in Bioethics. The certificate program is designed primarily for individuals involved in health care practice, research, or administration, for whom questions of ethics arise on a daily basis. The curriculum provides grounding in the essentials of bioethical reasoning and practice for nurses, physicians, social workers, researchers, hospital administrators and other health care professionals.

Faculty Research

Professor Sonya Charles joined the faculty in 2007. She specializes in women's reproductive health issues and has published articles on assisted reproductive technology and illegal drug use during pregnancy. Professor Emeritus, Joseph DeMarco, is the author of *Moral Theory* and numerous articles on ethics. He developed the web-based courses that are part of the certificate program. Professor Martin Harvey completed a bioethics fellowship at the Mt. Sinai School of Medicine. He has published articles on the philosophy of law and social philosophy. Professor Samuel Richmond is the author of articles on ethics, theories of justice, philosophy of law, and social work practice. Professor Allyson Robichaud also completed a bioethics fellowship at Mt. Sinai School of Medicine in New York City. She has published on the role of emotion in the clinical setting and on issues concerning care of the aged.

Admission Information

Degree-seeking graduate students who hold Regular admission status may be admitted to the certificate program. Those wishing only to earn the certificate may do so and can indicate this on their application form. Alternatively, the applicant must meet the graduate certificate admission requirements detailed in the Admissions section of this Catalog. Credits earned for the Graduate Certificate in Advanced Study in Bioethics may apply toward a graduate degree as approved by the student's graduate program director and in keeping with the policies of the College of Graduate Studies. With program permission, non-degree graduate students may enroll in the courses noted below, but non-degree graduate students cannot earn a University graduate certificate.

Submit application materials to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

Individuals who successfully complete twelve credits in bioethics at the graduate level, including PHL 540, Moral Reasoning in Bioethics, with a grade of B or better, are eligible to receive the Graduate Certificate in Advanced Study in Bioethics. The certificate testifies that its holder has completed an intensive course of graduate study in moral theory, decision-making procedures in bioethics, the current literature of bioethics, and the practical application of moral principles and rules to cases in clinical practice, decision-making, and law. Bioethics courses are numbered PHL 540 to PHL 544. All of the courses are offered in a Web-based format.

Courses

PHL 540 Moral Reasoning and Bioethics (4 credits)
PHL 541 Clinical Issues in Bioethics (4 credits)
PHL 542 Policy Issues in Bioethics (4 credits)
PHL 543 Bioethics and the Law (4 credits)
PHL 544 Bioethics and Biotechnology (4 credits)

For further information, contact:
The Department of Philosophy
Cleveland State University
2121 Euclid Avenue Rhodes Tower 1932
Cleveland, OH 44115
Phone: (216) 687-3900 Fax: (216) 523-7422
a.robichaud@csuohio.edu

Graduate Certificate in

Chemical Dependency Counseling

Elliott Ingersoll, Certificate Program Coordinator

Joint Certificate Program with the Department of Counseling, Administration, Supervision, & Adult Learning and the School of Social Work.

Introduction

One of the fastest growing job markets in the mental health disciplines is chemical dependency counseling. The state of Ohio now has its own board to license chemical dependency counselors (The Ohio Chemical Dependency Professionals Board – OCDPB). This program provides all the academic training for all levels of chemical dependency counseling licensure.

Faculty Research

Both the counseling and social work faculty have ongoing research projects related to the training of chemical dependency professionals and treatment outcomes in the field.

Career Information

According to an Ohio Department of Labor Task Force there will be a large number of retirements of chemical dependency professionals in Northeast Ohio between 2007 and 2017. This means that there will be a large demand for incoming graduates to fill the vacant positions.

Admission Information

Admission to the certificate program is open to current students in counseling, social work, clinical or school psychology, OR those holding master's degrees in accredited counseling or social work programs from other institutions.
Application materials should be submitted to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

(12 credit hours)
The certificate program requires a total of twelve credit hours plus completion of the master's in social work or counseling (school or agency). One hundred hours of the total 274 clock hours are infused in the master's programs in social work and counseling.

Core Courses

CNS 501 Chemical Dependency: Assessment, Prevention, Treatment (4 credits)
SWK 692 Group Work Practice (3 credits)
CNS 502 Pharmacology of Addiction (1 credit)
SWK 694 Theories and Procedures in Addictions Studies (3 credits)
CNS 503 Legal/Ethical Issues in Substance Dependence (1 credit)

For further information, contact:
Education Student Services Center
Cleveland State University
2121 Euclid Avenue
Rhodes Tower 1401
Cleveland, OH 44115
Phone: (216) 687-4625 Fax: (216) 687-9284

Graduate Certificate in

Culture, Communication, and Health Care

Susan Bazyk, Certificate Program Director

Introduction

Health care providers are deeply concerned about the quality of interaction between care providers and clients of diverse cultural backgrounds. This graduate certificate program is designed to provide practitioners with the tools they need to be effective in this environment. Based on ethnographic methods used by social scientists, the certificate provides training in both theory and practice to enhance the quality of intercultural communications and health care delivery.

Admission Information

Degree-seeking graduate students who hold Regular admission status may be admitted to the certificate program. Credits earned for the certificate may be applied toward a graduate degree as approved by the student's graduate program director and in keeping with the policies of the College of Graduate Studies. Alternatively, the applicant must meet the graduate certificate admission requirements detailed in the Admissions section of this Catalog. With program permission, non-degree graduate students may enroll in the courses noted below, but non-degree graduate students cannot earn a University graduate certificate.

Applicants must hold an undergraduate or graduate degree in health care or a related profession.

Submit application materials to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

Students must take one course from each of the four clusters listed below:

Cognitive Framework (choose one)

COM 549 Health Communication (4 credits)
HSC 505 Culture and Health Care (3 credits)
SOC 580 Racial and Ethnic Inequality (4 credits)
SOC 680 Race and Ethnicity in American Society (4 credits)

Methods (choose one)

COM 534 Ethnographic/Qualitative Research Methods (4 credits)
COM 535 Participant Observation/Interviewing Methods (4 credits)
PSY 512 Field Research Methodology (4 credits)
SOC 555 Ethnographic Research Methods (4 credits)

Application

PSY 535 Clinical Interviewing Practicum (2 credits) and
PSY 536 Behavioral Assessment (4 credits) or PSY 672 Multicultural Psychology and Diversity Practicum (4 credits)

Elective (choose one or more)

ANT 560 Special Topics: Anthropology (4 credits) COM 549 Health Communication (4 credits)
HSC 570 Special Topics in Health Sciences: Health Care in Guatemala (3 credits)
HSC 570 Special Topics in Health Sciences: Health Care in Belize (4 credits)
SOC 543 Medical Sociology (4 credits)
SWK 695 Health Care: Planning and Policy Issues (3 credits)

For further information, contact:
The Department of Health Sciences
Cleveland State University
2121 Euclid Avenue Health Sciences 101
Cleveland, OH 44115
Phone: (216) 687-3567 Fax: (216) 687-9316

Graduate Certificate in

Early Childhood Mental Health Counseling

Elliott Ingersoll, Certificate Program Coordinator

Department of Counseling, Administration, Supervision, & Adult Learning.

Introduction

Early Childhood Mental Health counseling is a growing specialization in working with children ages 0-6, their families, and the providers employed in settings dealing with this age group. This certificate has two tracks, one for those delivering the actual interventions (counseling) and those in similar settings who are not directly delivering interventions but supervising those who do (consultation). Early Child Mental Health Services are supportive interventions designed to strengthen the optimal development of a young child within the context of the family and community. Young children and families served include premature, underweight, medically fragile or chronically ill babies; young children with identified disabilities or developmental delays; adolescent parents; depressed parents; parents who are unprepared or overwhelmed by the care of a baby/child; and parents at social or emotional risk in the care-giving role. This program is designed to be delivered in an online and weekend intensive format to draw students from across the state of Ohio.

Faculty Research

The counseling and counseling psychology specialization faculty are involved in conceptual and applied research related to the neuroscientific and epigenetic correlates of childhood mental health problems as well as working with families in counseling and victim assistance following traumas. Research also includes the role of culture in mental health, understanding developmental lines, and coaching caregivers in their work with children.

Career Information

Early Childhood Mental Health is a specialization with a growing need for professionals in Ohio. Based on Governor Ted Strickland's Early Childhood Health Initiative, the specialization will play a growing role across the state.

Admission Information

Admission to the certificate program counseling track is open to current students in counseling, social work, and counseling or school psychology, OR those a license for mental health practice in the state of Ohio. Admission to the certificate program consultation track is open to current students in education, public health or behavioral science programs as well as those holding degrees in these areas. Application materials should be submitted to the Graduate Admissions

Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

(16 credit hours)

Core Courses

CNS 510: Early Childhood Development & Mental Health (3 credit hours)
CNS 511: Families and Early Childhood (3 credits hours)
CNS 512: Early Childhood Assessment (3 credit hours)
CNS 513: Techniques and Interventions for Early Childhood Mental Health Professionals (3 credit hours)
CNS 514: Internship in Early Childhood Mental Health and Behavioral Consultation (4 credit hours)

For further information, contact:
Education Student Services Center
Cleveland State University
2121 Euclid Avenue
Rhodes Tower 1401
Cleveland, OH 44115
Phone: (216) 687-4625 Fax: (216) 687-9284

Graduate Certificate in

Gerontological Studies

Mary Milidonis, Certificate Program Director

The program draws on the strengths of an array of outstanding gerontological professionals on campus and in the community, including those at Benjamin Rose, the Myers Research Institute, the Cleveland Clinic, and the Fairhill Center on Aging.

Introduction

The Graduate Certificate in Gerontological Studies is designed to assist students in developing careers in fields that provide services for the growing population of older people. Courses are offered in three specializations, including clinical/interventive roles, gerontological policy/program development, and academic/applied research. These specializations are designed to afford opportunities for students to enhance their skills and knowledge in critical areas that relate to the needs of elders. The clinical/interventive specialization is designed primarily for students in health fields such as nursing, occupational therapy, physical therapy, and other professional fields such as clinical psychology, speech and hearing, and social work. The gerontological policy/ program specialization is intended to assist students with administrative and program development interests. The academic/ applied research specialization is designed for students planning to seek advanced degrees or to do applied research in community agencies serving older adults.

Faculty Research

Faculty research interests reflect the interdisciplinary nature of the field. Recent work includes a number of books, articles in professional journals, and presentations at professional meetings, along with sustained contributions to professional associations, such as the Gerontological Society of America, the Association for Gerontology in Higher Education, and the American Society on Aging.

Career Information

Few areas offer more career opportunities than the field of aging. Opportunities range from careers in health and human service organizations to business, financial, legal, administrative, religious, and professional careers in almost all fields. With the growth of the aging population and the anticipated effects of the "baby boom generation" on the structure and functioning of society, careers in gerontology are among the most promising in American society. Also, with the aging of populations on a worldwide basis, the need for well-prepared professionals is becoming even more evident.

Admission Information

Degree-seeking graduate students who hold Regular admission status may be admitted to the certificate program. Alternatively, applicants must meet the graduate certificate admission requirements detailed in the Admissions section of this Catalog. With program permission, non-degree graduate students may enroll in the courses noted below, but non-degree graduate students cannot earn a University graduate certificate. Credits earned for the certificate may apply toward a graduate degree, as approved by the student's graduate program director and in keeping with policies of the College of Graduate Studies. Submit application materials to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

Students wishing to earn a certificate in Gerontological Studies must complete the overview course and a minimum of two specified courses plus an internship research project for a total of **13 to 15 credits**.

Overview Course (choose one)

HCA 650 Long-term Care (3 credits)
SWK 680 Aging and Social Work Practice (3 credits)
SOC 516 Sociology of Aging (4 credits)

Elective Courses (choose two)

HCA 650 Long-term Care (3 credits)
SWK 680 Aging and Social Work Practice (3 credits)
PED 572 Physiology of Aging (3 credits)
SOC 516 Sociology of Aging (4 credits)
HSC 526 Functional Performance of Older Adults (3 credits)
COM 549 Health Communication (4 credits)
SOC 661 Aging and the Life Course (4 credits)

Capstone (4 to 5 credits)

Students must complete an internship or research project. This requirement is independent of any fieldwork requirement of a particular Masters program.

Graduate Certificate in

Global Business

Thomas W. Whipple, Certificate Program Coordinator

Introduction

There is a growing demand for professionals who can deal with complex problems in international trade and management. The Graduate Certificate in Global Business provides the opportunity for current graduate business students and those who hold graduate business degrees to enhance their skills in international business practices and management strategies. Credits earned as part of the certificate program may apply toward a graduate degree.

Students who complete the certificate program will be able to:

o   Enhance and complement the skills of business professionals who deal with complex problems in international trade, finance, marketing, operations, and strategic management;

o   Bring professional knowledge and skills about international business to Northeast Ohio companies that operate in global markets.

Career Information

The Graduate Certificate in Global Business is designed to prepare business professionals to manage and conduct business in a complex and fast-changing global environment. The Certificate targets current graduate business students and those already holding graduate business degrees by providing them the opportunity to earn formal credentials in the field.

Faculty Research

More than two dozen faculty members are engaged in international business research projects in various business disciplines. Recent publications include articles in scholarly and professional journals, presentations at national and international professional meetings, and sustained contributions to professional associations.

Admission Information

Students who are admitted to the certificate program should have completed MBA 602 or an equivalent graduate-level international business course. The certificate program consists of four graduate courses (three required and one elective) for a minimum of 14 credit hours. A minimum of B grade in each course is required to complete the certificate program.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

    MKT 608 Global Marketing (4 credits)
    FIN 621 International Financial Management (4 credits)
    OMS 525 International Operations Management & Supply Chain (3 credits)

One elective course—select from the
following list:

    IST 601 IT for Competitive Advantage (3 credits)
    MKT 640 Field Experience Abroad (4 credits)
    MLR 587 International Management (3 credits)
    OMS 624 Global Operations Management (3 credits)
    ACT 560 International Accounting (3 credits)
    INB 690 Professional Internship International Business (2-4 credits)
    INB 696 Special Topics in International Business (including study abroad courses) (1-4 credits)
    INB 698 Independent Study (1-4 credits)

For Further Information, Contact:
Department of Marketing,
Nance College of Business Administration:
2121 Euclid Avenue, BU 460
Cleveland, Ohio 44115-2214
Phone: (216) 687-4771
FAX: (216) 687-5135
E-mail: marketing@csuohio.edu

Graduate Certificate in

Healthcare Informatics

Santosh Misra, Program Coordinator

Introduction

Healthcare informatics is defined as the understanding and promoting the effective organization, analysis, management and use of information in healthcare. According to the American Medical Informatics Association, this field uses technology as an integral tool to help organize and manage healthcare information. Tools and techniques from a number of disciplines are brought together to help in this management process. Disciplines contributing to healthcare informatics include such disciplines as computer and information science, statistics, health sciences, health management, and engineering.

Historically, healthcare informatics has been identified with the computerization efforts in healthcare delivery. Examples of information management in heathcare include Electronic Medical Record (EMR), the measurement of quality of care and the study of patient-perceived health outcomes. While it is difficult to enumerate all of the possible uses of informatics in healthcare, they include the use of computers in many decision making situations including those required during clinical trials for new drugs, the design of an experimental research, or the evaluation of a healthcare program.

A student of this certificate program will develop expertise to integrate computing and information science with biomedical information and knowledge, thereby addressing the interface between healthcare information and computing. They can identify/design research designs for healthcare outcomes, apply various statistical methods and describe strengths and weaknesses of various quantitative and qualitative methods.

Admission Information

This certificate program complements the knowledge-base of a degree seeking graduate student already enrolled in a program such as Computer Science, Health Science, Healthcare Management, and Social Science, including Psychology and other related areas. Alternatively, the applicant must meet the graduate certificate admission requirements as detailed in the Graduate Certificate and Licensure Admissions section of the graduate catalog.

Submit application materials to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Career Opportunities

A professional with healthcare informatics certificate can find career opportunities in more than 350 identified biotechnology companies in Ohio. In addition, this expertise is in demand in hospital and healthcare institutions. Nationally, available opportunities are much larger.

Program Highlights

At least 18 credit hours from courses listed below are required for the completion of the certificate. Based on the student's background, a minimum of two courses from each of the listed areas must be chosen. However, this restriction can be relaxed based on the student's background and the concurrence of the program advisory group. Consult the CIS department for the procedure.

Computer and Information Science:

CIS 667 Bioinformatics (4 credits)
IST 600 Fundamentals of Systems Development (4 credits)
IST 603 Systems Analysis Methods (4 credits)
IST 604 Design and Implementation of DBMS (4credits)
OMS 622 Project Management (3 credits)

Statistics:

HSC 503 Research and Analysis in Health Sciences (3-0-3)
MTH 567 Probability and Statistics I (4-0-4)
MTH 668 Probability and Statistics II (4-0-4)
OMS 503 Statistical Methods for Business Decisions (3-0-3).
OMS 633 Multivariate Statistical Methods (3-0-3).
PSY 511 Univariate Statistics and Experimental Methodology (4-0-4)
PSY 611 Advanced Data Analysis with Computer Applications (4-0-4)

Health Sciences and Management:

HCA 515 Medical Care Organization (3-0-3)
HCA 516 Health Care Policy and Quality (3-0-3)
HCA 625 Health Care Informatics for Managers (3-0-3)
HSC 501 Issues in Health Science (3-0-3)
HSC 533 Program Development and Evaluation (3-0-3)

Of the 18 required credit hours, a maximum of 6 credit hours in each primary area taken for the Master's degree may be counted toward the Certificate Program.

For a complete advising, students should contact the CIS department in the College of Business Administration.

Graduate Certificate in

Local Urban Management

Jessica E. Sowa, Certificate Program Coordinator

The certificate program is offered by the faculty of the Maxine Goodman Levin College of Urban Affairs. Its curriculum reflects the priorities of practicing local urban managers. The program draws upon the experience and knowledge of professionals associated with the public service centers of the Levin College of Urban Affairs and local government leaders affiliated with the Northeast Ohio City Management Association.

Introduction

The certificate program helps practitioners address the challenges and opportunities facing cities, including budget cutbacks and equity planning. The program also assists experienced managers in business and nonprofit sectors to transition into local government positions.

Admission Information

Degree-seeking graduate students who hold Regular status will be considered for admission to the certificate program. Applicants must have a career commitment to local/urban management.

Students enrolled in a graduate degree program at Cleveland State University must file, prior to graduation, a letter indicating their intent to complete the requirements for the certificate program. The letter, addressed to the Graduate Program Advisor of the Levin College, must specify the anticipated date of completion for each course taken to fulfill certificate requirements.

Applicants who are not enrolled in a graduate degree program at Cleveland State must apply for graduate certificate admission. An applicant must:

1. Submit an application for the graduate certificate program, along with a $30 application fee,

2. Submit an official transcript that shows evidence of an earned bachelor's degree from an accredited university with a cumulative undergraduate grade-point average of at least 2.75,

3. Submit a resume indicating educational background, professional experience, and career goals, and

4. Meet one of the following criteria:

    a. Obtain a score at the 50th percentile or higher on the general section of the GRE within the last six years.

    b. Complete twelve or more semester hours of Cleveland State University graduate work with a grade of B or better in each course.

      c.   Hold a master's or a JD degree from an accredited institution.

      d.   Successfully complete the Local Officials Leadership Academy through the Maxine Goodman Levin College of Urban Affairs.

Upon admission, all students must meet with a Graduate Program Advisor to prepare a program of study.

Credits earned for the certificate may apply toward a graduate degree, if approved by the student's graduate program director and in keeping with policies of the College of Graduate Studies.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

The certificate program consists of five courses. Four courses are required; one is an elective. Certificate students must maintain a minimum graduate grade-point average of 3.0 to remain in the program.

Required Courses

PAD 630 Public Human Resource Management (3 credits)
PAD 633 Budget Policy and Management (4 credits)
PAD 634 Ethics in the Public Sector (4 credits)
PAD 619 Seminar in City Management (3 credits)

Elective Courses

One course may be chosen from the following list. One alternative course may be selected with approval from the graduate certificate program director.

ACT 584 Government and Institutional Accounting (3 credits)
PAD 510 Proposal Writing and Program Development (4 credits)
PAD 600 Introduction to Public Administration (4 credits)
PAD 603 Public Finance and Economics (4 credits)
PAD 604 Organizational Behavior (4 credits)
PAD 620 Economic Development: Plans and Strategies (4 credits)
PAD 631 Law and Public Administration (3 credits)
PAD 632 Leadership and Governance (3 credits)
PAD 690 Internship (3 credits)
PSC 636 Policy Development and Evaluation (4 credits)
UST 572 Conflict Management (4 credits)

For further information, contact:
Urban Student Services

Cleveland State University
2121 Euclid Avenue
Urban Building 232N
Cleveland, OH 44115
Phone: (216) 687-3884 Fax: (216) 687-5398

Graduate Certificate in

Marketing Analytics

Using Decision-Support Systems in Marketing Decision-Making

Thomas W. Whipple, Certificate Program Coordinator

Introduction

The Graduate Certificate in Marketing Analytics is designed to assist students in developing careers as marketing analysts or planners. They learn to use decision-support systems in marketing decision-making. The research and decision models introduced provide students with the planning tools they need to do their jobs. Students and Cleveland-area business people, including marketing research suppliers, consultants, planners, and analysts, who seek a more focused, hands-on, and practical experience in marketing decision-making, benefit from the program.

Students who complete the certificate program are able to:

Collect appropriate data and use marketing analytics for planning purposes.
Use secondary data sources and marketing databases in planning.
Conduct sensitivity and scenario analyses to improve marketing decision making.
Develop marketing plans by using decision-support systems based on qualitative and quantitative analysis.

Faculty Research

Faculty research interests reflect the analytical nature of the field. Recent work includes a number of articles in professional journals, presentations at professional meetings, and sustained contributions to professional associations.

Career Information

Few areas in marketing offer more career opportunities than marketing analysis and planning. Careers range from marketing research, advertising, and promotion, to new product development, pricing administration, strategic planning, sales management, and professional careers in almost all marketing fields.

With the growth in the use of marketing analytics and business software, the need for well-prepared professionals with analytical planning skills is becoming more evident.

Admission Information

MBA students who hold Regular admission status and individuals who qualify for Regular admission to the MBA program may be admitted to the program. Students who are admitted to the certificate program should have completed MKT 601 or an equivalent graduate-level marketing course. Credits earned as part of the certificate program may apply toward a graduate degree, if approved by the student's graduate program director, and if they are in keeping with the policies of the Nance College of Business Administration and the College of Graduate Studies.

Submit application materials to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

All students must complete the following four required courses for a total of sixteen credits:

MKT 556 Customer Relationship Management (4 credits)
MKT 602 Marketing Research (4 credits)
MKT 604 Strategic and Tactical Marketing (4 credits)
MKT 607 Product Management (4 credits)

For Further Information, Contact:
Department of Marketing
Nance College of Business Administration
2121 Euclid Avenue, BU 460
Cleveland, Ohio 44115-2214
Phone: (216) 687-4771
FAX: (216) 687-5135
E-mail: marketing@csuohio.edu

Graduate Certificate in

Middle Childhood Mathematics Education

Joanne E. Goodell, Certificate Program Director

Introduction

The purpose of this program is to provide an opportunity for teachers who hold a teaching certificate or license in Elementary (K-8 or 1-8) and who have completed five or more years of teaching mathematics in one or more middle school grades to earn a university graduate certificate in middle childhood mathematics.

This program includes the core courses necessary for licensure in middle childhood mathematics. Additional courses, however, may be required to complete this licensure in full. Individuals seeking to complete the licensure program should contact the Education Student Services Advising Center at (216) 6874625 for further information.

Admission Information

Prospective students should apply for graduate admission as a "certificate" student to register for classes. The student must meet the graduate certificate admission requirements detailed in the Admissions section of this Catalog. With program permission, non-degree graduate students may enroll in the courses noted below, but non-degree graduate students cannot earn a University graduate certificate. Degree-seeking graduate students who hold Regular admission status may also be admitted to the certificate program. Credits earned for the certificate may be applied toward a graduate degree, as approved by the student's graduate program director and in keeping with the policies of the College of Graduate Studies.

Application materials should be submitted to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

Students must complete the six courses listed below for a total of twenty-four credit hours:

MTH 526 Numbers, Patterns, and Operations for Middle School Teachers (4 credits)
MTH 527 Algebra and Functions for Middle School Teachers (4 credits)
MTH 528 Geometry for Middle School Teachers (4 credits)
MTH 529 Data Analysis and Probability for Middle School Teachers (4 credits)

MTH 530 Conversational Calculus for Middle School Teachers (4 credits)
EDC 515 Instructional Development in Mathematics Education (4 credits)

For Further Information, Contact:
Education Student Services Center
Cleveland State University
2121 Euclid Avenue
Rhodes Tower 1401
Cleveland, OH 44115
Phone: (216) 687-4625 Fax: (216) 687-9284

Graduate Certificate in

Middle Childhood Science Education

Debbie Jackson, Certificate Program Director

Introduction

The purpose of this program is to provide an opportunity for teachers who hold a teaching certificate or license in Elementary (K-8 or 1-8) and who have completed five or more years of teaching science in one or more middle school grades to earn a university graduate certificate in middle childhood science.

This program includes the core courses necessary for licensure in middle childhood science. Additional courses, however, may be required to complete this licensure in full. Individuals seeking to complete the licensure program should contact the Cleveland State University Education Student Service Advising Office at (216) 687-4625 for further information.

Admission Information

Prospective students should apply for graduate admission as a "certificate" student to register for classes. Applicants must meet the graduate certificate admission requirements detailed in the Admissions section of this Catalog. With program permission, non-degree graduate students may enroll in the courses noted below, but non-degree graduate students cannot earn a University graduate certificate. Degree-seeking graduate students who hold Regular admission status also may be admitted to the certificate program. Credits earned for the certificate may be applied toward a graduate degree, as approved by the student's graduate program director and in keeping with the policies of the College of Graduate Studies.

Application materials should be submitted to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

Students must complete the five courses listed below for a total of twenty-four credit hours.

    BIO 580 Biology Content for Middle School Teachers (5 credits)
    CHM 580 Introductory Chemistry for Middle School Teachers (5 credits)
    EDC 517 Instructional Development in Science Education (4 credits)
    EVS 580 Earth System Science for Middle School Teachers (5 credits)
    PHY 500 Conceptual Physics for Middle School Teachers (5 credits)

For Further Information, Contact:

Education Student Services Center
Cleveland State University
2121 Euclid Avenue
Rhodes Tower 1401
Cleveland, OH 44115
Phone: (216) 687-4625 Fax: (216) 687-9284

Graduate Certificate in

Museum Studies (Natural History)

Anton A. Komar, Ph.D. and Crystal M. Weyman, Ph.D.: Certificate Program Coordinators

Introduction

The certificate will serve as an introduction to the various aspects of professional work in museums, with particular attention to science museums. Modern museums have redefined themselves as educational, social, and cultural institutions, in addition to the traditional functions of scientific research and preservation. They house, protect, and preserve objects for posterity, and for study and enrichment. The objects found in natural history museums span many scientific disciplines and almost the entire existence of the earth; illuminating the history of these objects requires diverse techniques for direct observation and indirect inference. Further, modern natural history museums often maintain large collections of living organisms and may administer extensive nature preserves. Modern technology makes us human and it provides the tools for increasing our knowledge of and effect on the natural world; as such, technology itself is increasingly seen as a suitable object for natural history museums. Finally, modern museums encourage public engagement through volunteer programs, student internships, and a variety of educational programs; they also have a responsibility to contribute their experts and their store of basic scientific knowledge to enhance the factual basis of public issues where appropriate.

The certificate course work will address general aspects of museums, including fund-raising, and focus on the primary goals of a science museum: education, preservation of collections and research. Students can choose electives to deepen their understanding of the science in the particular area of their interest. Finally, the certificate will include an internship experience.

Admission Information

It is expected that most interested students will have some background in one of the scientific or technological fields typically found in Natural History Museums or Science Centers. The applicant must meet the graduate certificate admission requirements as detailed in the Graduate Certificate and Licensure Admissions section of the graduate catalog.

Application materials should be submitted to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

ART 505 Museology (4 credits)
BIO 588 Museum Studies in Natural History (3 credits)
BIO 589 Internship in Museum Studies (Natural History) or BIO 597 Independent Study in Biology [Internship] (4 credits)
PAD 651 Fundraising for Non-Profits (4 credits)

One additional Biology or Environmental Science course approved by the BGES graduate program director. Suggested courses include:

BIO 522 Mammalian Physiology plus BIO 523 Lab (4 credits)
BIO 550 Evolutionary Biology (3 credits)
BIO 552 Marine Ecology (3 credits)
BIO 554 Ecology plus BIO 555 Lab (5 credits)
BIO 572 Wetland Ecology (4 credits)
BIO 574 Stream Ecology (4 credits)
BIO 578 Morphology of Flowering Plants plus BIO 579 Lab (4 credits)
BIO 653 Advanced Research in Field Biology (4 credits)
BIO 656 Environmental Physiology (3 credits)
EVS 506 Ecosystem Science (3 credits)
EVS 520 Rivers and Watersheds of Northeast Ohio plus EVS 521 Lab (4 credits)
EVS 550 Applied Ecology (3 credits)
EVS 570 Aquatic Ecosystems (3 credits)
Total required credits = 18 to 20 Credits

Recommended, but not required:
PAD 652 Financial Administration for Non-Profits (4 credits)

Graduate Certificate in

Museum Studies

Robert Shelton, Certificate Program Coordinator

Introduction

The History Department offers a Museum Studies Certificate for those who already have an MA or who are employed in a museum and would like to enhance their qualifications in the museum studies field.

Admission Information

Admission requirements are the same as those for the MA in History program.

Application materials should be submitted to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

Students are required to complete a total of twenty (20) credit hours in approved courses with at least a 3.0 grade-point average.

1. 16 credit hours in the following required courses:

ART 505 Introduction to Museology (4 credits)
HIS 511 Introduction to Public History (4 credits)
PAD 651 Fundraising for Non-Profits (4 credits)
HIS 599 Internship in History (4 credits)

2. One additional course (4 credit hours) in consultation with the Graduate Director and the Coordinator of History Internships. Possibilities include but are not limited to:

HIS 504 US Urban History (4 credits)
HIS 506 History of Ohio (4 credits)
HIS 510 Indians in American History (4 credits)
HIS 512 17th Century America (4 credits)
HIS 519 US Tourism (4 credits)
HIS 529 Black Resistance in the Age of Jim Crow (4 credits)

3. The following course is recommended but is not required:

PAD 652 Financial Administration for Non-Profits (4 credits)

For further information, please contact:
The Department of History
Cleveland State University
2121 Euclid Ave., Rhodes Tower, Room 1915
Cleveland, OH 44115
Phone: (216) 687-3920
Fax: (216) 687-5592

Graduate Certificate in

Nonprofit Management

Jennifer Alexander, Graduate Certificate Coordinator

Introduction

The graduate certificate program in Nonprofit Management is designed to help nonprofit leaders effectively deal with the challenges facing their organizations, including government funding cutbacks, social problems, and the expanding need to acquire and manage financial resources. Administered by the Maxine Goodman Levin College of Urban Affairs, the program emphasizes hands-on learning designed to equip nonprofit administrators with the skills they need to succeed. It is aimed at executive directors and other managers, as well as professionals with business or government management experience who are seeking a bridge to the nonprofit sector.

Admission Information

Degree-seeking graduate students who hold Regular status will be considered for admission to the certificate program. In addition, applicants must have:

1   A career commitment to nonprofit management as evidenced by the student's resume and statement of career goals.

2   At least two years of management experience.

3   Spreadsheet competency and computer knowledge

Students enrolled in a graduate degree program at Cleveland State must file, prior to graduation, a letter stating their intent to complete the requirements for the Graduate Certificate in Nonprofit Management. The letter, addressed to the Graduate Program Advisor of the Levin College, must specify the anticipated date of completion for each course taken to fulfill certificate requirements.

Applicants who are not enrolled in a graduate degree program at Cleveland State must apply for graduate certificate admission. Certificate admission requirements are detailed in the Admissions section of this Catalog. In addition to meeting these admission requirements, certificate applicants must submit a statement outlining their education and career goals, have significant experience in the nonprofit sector, and submit a resume. Two letters of recommendation from individuals familiar with the applicant's management experience also are required.

With program permission, non-degree graduate students may enroll in the courses noted below, but non-degree students cannot earn a University graduate certificate. Credits earned for the certificate may apply toward a graduate degree, as approved by the student's graduate program director and in keeping with policies of the College of Graduate Studies.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

The certificate program consists of five courses: four required courses and one elective.

Required Courses

NAL 550 Fundamentals of Nonprofit Administration and Leadership (4 credits)
NAL 656 Capstone Seminar in Nonprofit Leadership and Management (4 credits)

Electives

Two electives may be chosen from the following list. Other appropriate courses may be selected with approval from the student's advisor.

NAL 510 Proposal Writing and Program Development (4 credits)
NAL 651 Fund Raising and External Relations for Nonprofit Organizations (4 credits)
NAL 652 Financial Administration and Control of Nonprofit Organizations (4 credits)
PAD 604 Organizational Behavior (4 credits)
NAL/PAD 630 Public Human Resources Management (3 credits)
LAW 722 Nonprofit Corporation Law Seminar (2 credits)
MKT 605 Services Marketing (4 credits)

For further information, contact:
Urban Student Services
Cleveland State University
2121 Euclid Avenue
Urban Building 232N
Cleveland, OH 44115
Phone: (216) 687-3884 Fax: (216) 687-5398

Graduate Certificate in

Nursing Education

Vicki D. Johnson, Interim Certificate Program Coordinator

Introduction

The graduate certificate program in nursing education allows nurses with existing baccalaureate or master's degrees in nursing to acquire the skills acquire the skills and competencies needed for the teaching and clinical supervision of nursing students. The program is designed to prepare graduates to be clinical faculty members in schools of nursing or staff development instructors in health care or related facilities. The program concentrates on curriculum design and development, instructional design, use of technology in the classroom, clinical teaching, faculty and student roles, and the supervision and evaluation of student nurses in clinical areas.

Admission Information

Students must hold either a baccalaureate or master's degree in nursing and have a current license to practice nursing in Ohio. Applicants must meet the graduate certificate admission requirements detailed in the Admissions section of this Catalog. Application materials should be submitted to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

Individuals who successfully complete the following 14 hours in nursing education coursework and practicum experiences with a grade of B or better are eligible to receive the Graduate Certificate in Nursing Education granted by the University.

Certificate in Nursing Education (14 credit hours)

NUR 520 Curriculum Development in Nursing (3 credits)
NUR 626 Practicum in Nursing Education (4 credits)
NUR 627 Issues and Trends in Nursing Education (3 credits)
ETE 565 Technology in the Classroom (4 credits)

Graduate Certificate in

Occupational and

Physical Therapy in the Schools

Susan Bazyk, Certificate Program Director

Introduction

The certificate program is offered through the departments of Health Sciences and Psychology, and the College of Education and Human Services. The twelve-to-thirteen-credit certificate enhances the skills of occupational and physical therapists currently working, or wishing to work, in K-12 school settings or special schools.

Admission Information

Degree-seeking graduate students who hold Regular status, and individuals who meet the minimum requirements for graduate certificate admission, will be considered for admission. Credits earned for the certificate may be applied toward a graduate degree, as approved by the student's graduate program director and in keeping with the policies of the College of Graduate Studies. Degree and certificate admission requirements are detailed in the Admissions section of this Catalog. With program permission, non-degree graduate students may enroll in the courses noted below, but non-degree graduate students cannot earn a University graduate certificate.

Applicants must have an undergraduate degree in occupational or physical therapy or be enrolled in the Occupational or Physical Therapy Program at Cleveland State University. Individuals with related undergraduate degrees such as speech pathology, audiology, nursing, education, psychology, or social work may be admitted at the discretion of the program.

Submit application materials to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

Post-professional graduate students must take the following course:

HSC 514 Occupational and Physical Therapy in the Schools (3 credits)

One of the following:

ESE 500 Introduction to Special Education (4 credits)

ESE 501 Nature and Needs of Young Children with Disabilities and Those at Risk (4 credits)

ESE 502 Introduction to Individuals with Mild/Moderate Disabilities (4 credits)

ESE 503 Introduction to Individuals with Moderate and Severe Disabilities (4 credits)

Two electives from the list below or other elective as approved:

Health Science Electives

HSC 512 Evolving Technologies in Health Sciences (3 credits)

HSC 570 Special Topics - Addressing the Psychosocial Needs of Children in Occupational Therapy (3 credits)

HSC 570 Special Topics – Disability Laws in the Schools (3 credits)

Education Electives

ESE 500 Introduction to Special Education (4 credits)

ESE 501 Nature and Needs of Young Children with Disabilities and Those at Risk (4 credits)

ESE 502 Introduction to Individuals with Mild/Moderate Disabilities (4 credits)

ESE 503 Introduction to Individuals with Moderate/Severe Disabilities(4 credits)

ESE 511 Classroom Management and Intervention for Severe Behavior Problems (4 credits)

ESE 512 Collaboration and Partnerships among Parents and Professionals in Special Education (4 credits)

HED 560 Foundations of a Coordinated School Health Program

Psychology Electives

PSY 767 Processing Issues in Consultation

Other electives

ART 641 Art in Social and Vocational Contexts

Master of OT (MOT) or Doctor of PT (DPT) Students must take the following course:

HSC 514 Occupational and Physical Therapy in the Schools (3 credits)

And

HSC Fieldwork HSC 595 or HSC 596 in a school setting (8 credits)

PLUS

One of the following electives:

Health Science Electives

HSC 512 Evolving Technologies in Health Sciences (3 credits)

HSC 570 Special Topics - Addressing the Psychosocial Needs of Children in Occupational Therapy (3 credits)

HSC 570 Special Topics – Disability Laws in the Schools (3 credits)

Education Electives

ESE 500 Introduction to Special Education (4 credits)

ESE 501 Nature and Needs of Young Children with Disabilities and Those at Risk (4 credits)

ESE 502 Introduction to Individuals with Mild/Moderate Disabilities (4 credits)

ESE 503 Introduction to Individuals with Moderate/Severe Disabilities(4 credits)

ESE 511 Classroom Management and Intervention for Severe Behavior Problems (4 credits)

ESE 512 Collaboration and Partnerships among Parents and Professionals in Special Education (4 credits)

HED 560 Foundations of a Coordinated School Health Program

Other electives

ART 641 Art in Social and Vocational Contexts

For further information, contact:

Department of Health Sciences
Health Sciences Bldg, Room 101
(216) 687-3567

Graduate Certificate in

Research Administration

The Graduate Certificate Program draws on the experience and knowledge of the faculty and professional staff of the Maxine Goodman Levin College of Urban Affairs. They are supplemented by research administration professionals affiliated with the Society of Research Administrators International (SRA) and distinguished experts from leading research institutions.

Introduction

The Graduate Certificate Program in Research Administration helps practitioners meet the challenges and opportunities facing research administrators, such as changing mandates, ethical dilemmas, international issues, and budgeting priorities. This multidisciplinary program also assists experienced administrators from higher education, health care, government, business, and the nonprofit sector.

The Program blends the theory and practice of public administration and research administration. It equips participants with the skills necessary to succeed as professional and ethical leaders while facilitating their pursuit of a master's degree in public administration. Also, it enables networking and an appreciation for lifelong learning.

Courses are developed by Cleveland State University faculty in partnership with professionals from the Society of Research Administrators International to provide program participants with a customized graduate curriculum. Cleveland State University faculty and distinguished experts drawn from leading research institutions will deliver this curriculum in an executive format. Each course involves an intensive residency associated with SRA meetings, although participants will be required to complete assignments before, during, and after this intensive week of study. Participants will demonstrate their mastery of the certificate program's course work through the completion of papers, exams, or applications. The week of residency is determined prior to the start of the semester, but may not be listed in the program schedule.

Admission Information

Applicants who are not enrolled in a graduate degree program at Cleveland State University must apply for graduate certificate admission. Applicants for admission must:

1.   Submit an application for admission to the graduate certificate program, along with the $30 fee.

2.   Provide documentation of requisite professional experience.

3.   Submit an official transcript that shows evidence of an earned bachelor's degree from an accredited university with a cumulative undergraduate GPA of at least 2.75.

4.   Submit a resume indicating educational background, and a statement that explains the

applicant's commitment to the profession, leadership, and excellence.

5.   Meet ONE of the following criteria:

   a.   Obtain a GRE score at the 50th percentile or higher within the last six years.

   b.   Complete twelve or more semester hours of Cleveland State University graduate course work AND earn a grade of B or better in each course.

   c.   Earn a baccalaureate degree and an undergraduate GPA of at last 3.0.

   d.   Earn a master's or a JD degree from an accredited institution.

6.   Upon admission to the certificate program, all students must contact the Graduate Program Advisor of the Levin College to prepare a program of study.

Degree-seeking graduate students who hold Regular status in the Levin College of Urban Affairs will be considered for admission to the certificate program. Applicants must have a career commitment to research administration, as evidenced by their resume, and a statement of career goals.

Credits earned for the certificate may apply toward a graduate degree, as approved by the student's graduate program director and in keeping with policies of the College of Graduate Studies.

Students enrolled in a graduate degree program at Cleveland State University must file, prior to graduation, a letter stating their intent to complete the requirements for the Certificate in Research Administration. The letter, addressed to the Graduate Programs Advisor of the Levin College, must specify the anticipated date of completion for each course taken to fulfill certificate requirements.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

The Graduate Certificate Program consists of the following five required courses:

   PAD 600 Introduction to Public Administration (4 credits)
   PAD 604 Organizational Behavior (4 credits)
   PAD 634 Ethics in the Public Sector (4 credits)
   PAD 633 Budget Policy and Management (4 credits)
   PAD 628 Fundamentals of Research Administration (4 credits)

For further information, contact:
Urban Student Services
Cleveland State University
Urban Building 232 N
2121 Euclid Avenue
Cleveland, OH 44115
Phone: (216) 687-3884 Fax: (216) 687-5398

Graduate Certificate in

Software Engineering

Yongjian Fu, Graduate Certificate Program Director

Introduction

The graduate certificate program in software engineering is offered jointly by the Department of Electrical and Computer Engineering and the Department of Computer and Information Science.

Software engineering is the application of a systematic, disciplined, and quantifiable approach to the development, operation, and maintenance of software systems. These software systems include large-scale enterprise systems, medium-scale systems, Web-based applications, desktop applications, and embedded systems.

Admission Information

Applicants should have a background in computer engineering or computer science. Prerequisite knowledge is required as indicated below. Applicants with baccalaureate degrees in related fields also will be considered for admission, but they may be required to take additional prerequisite courses. Credits earned for prerequisite courses cannot be used to meet the graduate certificate requirements.

All applicants must demonstrate prerequisite knowledge in the following areas. They can demonstrate their knowledge by undergraduate courses or professional experiences.

Data structures and algorithms	Probability and statistics
Programming languages	Computer organization
Databases	Computer networks
Discrete mathematics	Operating systems

Admission to the certificate program requires a minimum undergraduate cumulative grade-point average of 2.75. The Graduate Record Examination (GRE) is required with a minimum score of 80 percentile in Quantitative section. GRE may be waived for students with GPA 3.0 or higher, as specified in the Graduate Catalog. The Test of English as a Foreign Language (TOEFL) is required for all international students.
Credits earned for the certificate may be applied toward a graduate degree as approved by the student's graduate program director and in keeping with the policies of the College of Graduate Studies.

Submit application materials to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

The program consists of four courses, totaling sixteen credit hours:

CIS 634 Object-Oriented Software Engineering (4 credits)
CIS 635 Software Engineering Metrics, Economics, and Management (4 credits)
EEC 521 Software Engineering (4 credits)
EEC 623 Software Quality Assurance (4 credits)

For further information, contact:
Electrical and Computer Engineering Department
Fenn College of Engineering
Stilwell Hall 332
Cleveland State University
2121 Euclid Avenue Cleveland, Ohio 44115-2425
Phone: (216) 687-2589 Fax: (216) 687-5403

Graduate Certificate in

TESOL

Teaching English to Speakers of Other Languages

Maria E. Angelova, Certificate Program Director

Introduction

The College of Education and Human Services Graduate Certificate Program in TESOL is primarily designed for individuals who wish to acquire the knowledge and skills needed to teach English as a second language in non-public school settings. International students and those interested in teaching English abroad also benefit from the program. The curriculum provides for an in-depth study of current theory, research, and practice, as they relate to teaching English as a second or foreign language. The course work can be used to partially fulfill teacher licensure requirements for TESOL endorsement in the State of Ohio. Completion of this certificate program by itself does not provide for this credential. Students seeking to add TESOL endorsement to an existing Ohio teaching certificate or license should contact the Education Student Services Center at (216) 687-4625 for further information about other available programs for this purpose.

Admission Information

Prospective students should apply for graduate admission as a "certificate" student in order to register for classes. Applicants must meet the graduate certificate admission requirements detailed in the Admissions section of this Catalog. With program permission, non-degree graduate students may also enroll in the courses noted below, but non-degree graduate students cannot earn a University graduate certificate. Degree-seeking graduate students who hold regular admission status may be admitted to this certificate program. Credits earned for the certificate may be applied toward a graduate degree, if approved by the student's graduate program director and in keeping with the policies of the College of Graduate Studies.

Application materials should be submitted to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements (15 credit hours)

EDL 506 Second Language Learning and Pedagogy (3 credits)
EDL 507 TESOL Methods and Materials (3 credits)
EDL 508 Applied Linguistics for Teachers (3 credits)
EDL 509 Assessment and Evaluation in the ESL/Bilingual Classroom (3 credits)
EDL 510 Pedagogical Grammar (3 credits)

For Further Information, Contact:
Education Student Services Center
Cleveland State University
2121 Euclid Avenue
Rhodes Tower 1401
Cleveland, OH 44115
Phone: (216) 687-4625 Fax: (216) 687-9284

Graduate Certificate in

Urban Economic Development

Larry Ledebur, Certificate Program Coordinator

Introduction

The program is designed for individuals seeking pre-professional or professional education in economic development, economic development finance, and workforce and technology development. Elected public officials, appointees, and professional staff who seek to understand economic development and oversee and implement economic development programs also will find the program beneficial, as will community development corporation staff administering economic development and workforce development programs. The program also is appropriate for current Cleveland State graduate students seeking certification in economic development, economic development finance, or workforce development education and training.

Admission Information

Degree-seeking graduate students who hold Regular status will be considered for admission to the certificate program.

Students enrolled in a graduate degree program at Cleveland State must file, prior to graduation, a letter stating their intent to complete the requirements of the certificate in Urban Economic Development. The letter, addressed to the Maxine Goodman Levin College of Urban Affairs Graduate Program Advisor, must specify the anticipated date of completion for each course taken to fulfill certificate requirements.

Applicants who are not enrolled in a graduate degree program at Cleveland State must apply for graduate certificate admission. Certificate admission requirements are detailed in the Admission section of this Catalog. In addition to meeting these requirements, applicants must submit a statement outlining their career goals, experience in economic development, educational goals, and a current resume.

With program approval, non-degree graduate students can enroll in the courses noted below, but non-degree graduate students cannot earn a University graduate certificate. Credits earned for the certificate may apply toward a graduate degree, as approved by the student's graduate program director and in keeping with policies of the College of Graduate Studies.

Submit application materials to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Prerequisites

PAD/PDD/UST/ 603 Public Finance and Economics, or its equivalent, is a prerequisite for the certificate program. Additional prerequisites may apply for elective courses in the program.

Certificate Requirements

The certificate program consists of four courses, including three required courses and one elective for a total of 16 credits. All courses are four credits.

Required Courses

PAD/PDD/UST 605 Urban Spatial Structures (4 credits)
PAD/PDD/UST 622 Economic Development Policy (4 credits)
PAD/PDD/UST 626 Economic Development and Workforce Development. (4 credits)

Electives

PDD/UST 572 Conflict Management (4 credits)
PDD/UST 610 Urban Development Process/Market Analysis (4 credits)
PAD/PDD/UST 615 Economic Development and Budgetary Policy (4 credits)
PAD/PDD/UST 621 Local Labor Market Analysis (4 credits)
PAD/PDD/UST 623 Urban Development Finance and Applied Project (4 credits)
PAD/PDD/UST 625 Strategic Thinking (4 credits)
PAD/PDD/UST 626 Workforce Development (4 credits)
PAD/PDD/UST 627 Urban Tourism, the Urban Core, and Economic Development (4 credits)
PAD/PDD/UST 642 Introduction to Geographic Information Systems (4 credits)
PAD/PDD/UST 693 Special Topics in Urban Planning, Design, and Development (4 credits)
SOC 683 Sociological Analysis of Work and Economic Change (4 credits)

For further information, contact:
Urban Student Services
Cleveland State University
Urban Building 232 N
2121 Euclid Avenue
Cleveland, OH 44115
Phone: (216) 687-3884 Fax: (216) 687-5398

Graduate Certificate in

Urban Geographic Information Systems (GIS)

Sung-Gheel Jang, Certificate Program Coordinator

Introduction

The Maxine Goodman Levin College of Urban Affairs offers a certificate program in Urban Geographic Information Systems (GIS). The program is central to the College's mission to provide academic and professional education, expertise, and research capabilities to enhance the quality of life in urban communities.

Career Information

The certificate program offers a sequence of courses to professionals who wish to learn GIS technology to complement their careers in government, planning, environment, public works, and other urban agencies. The program provides a solid understanding of basic concepts, technical, and institutional factors in GIS design and implementation, and applications of the technology in professional settings.

Admission Information

Degree-seeking graduate students who hold regular admission status may be admitted to the certificate program. Alternatively, the applicant must meet the graduate certificate admission requirements detailed in the Admission section of this Catalog. With program permission, non-degree graduate students may take the courses noted below, but non-degree graduate students cannot earn a University graduate certificate. Credits earned for the certificate may apply toward a graduate degree, as approved by the student's graduate program director and in keeping with policies of the College of Graduate Studies.

Submit application materials to the Graduate Admissions Office.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

The certificate program consists of three courses for a total of twelve credits. The introductory course (UST 642) approaches GIS as a tool to provide students with basic technical, analytical, and management skills that can be used in other courses or in the work setting. The course focuses on the principles and concepts of GIS and tools of spatial information analysis that result

in recommending fast and efficient solutions to everyday problems. The second course (UST 643) focuses on advanced professional and academic applications of GIS technology. The third course (UST 644) centers upon individual GIS-based projects and provides seminar-based discussions of current issues in GIS.

The required GIS courses are:

UST 642 Introduction to Geographic Information Systems (GIS) (4 credits)
UST 643 Advanced GIS (4 credits)
UST 644 GIS Capstone Seminar (4 credits)

For further information, contact:
Urban Student Services
Cleveland State University
Urban Building 232N
2121 Euclid Avenue
Cleveland, OH 44115
Phone: (216) 687-3884 Fax: (216) 687-5398

Graduate Certificate in

Urban Real Estate Development and Finance

Robert A. Simons, Certificate Program Coordinator

Introduction

The graduate certificate program in Urban Real Estate Development and Finance is offered jointly by the Maxine Goodman Levin College of Urban Affairs and the Nance College of Business Administration. In addition to Cleveland State faculty, guest lecturers from the real estate community enhance the program by providing up-to-date examples of successful projects. The program provides engaged learning and focused, hands-on experience in project-level real estate and real estate finance, investment, and valuation.

Courses are offered in the evening to accommodate working students. The sixteen-credit certificate may be earned in one year.

Faculty Research

Professor Robert Simons specializes in environmental real estate research and environmental real estate issues, including proximity influence and brownfields. Professor James Webb, who serves as the Executive Director of the American Real Estate Society, specializes in income property investment and financing.

Career Information

A graduate certificate in Urban Real Estate Development and Finance is a valuable tool for current Cleveland State graduate students who want to enhance their academic program in the area of real estate. Professionals in the fields of real estate, real estate law, planning, economic development, banking, and architecture can enroll in the program to update and strengthen their knowledge and practice in urban real estate development and finance.

Admission Information

Degree-seeking graduate students who hold Regular status will be considered for admission to the certificate program. In addition, applicants must show evidence of:

1   The ability to do quality, professional-level work, and
2   Spreadsheet competency or the ability to learn quickly.

Prior to graduation, degree-seeking students must file a letter with the Levin College Graduate Programs Advisor, stating their intent to complete requirements for the certificate. The letter must specify the expected date of completion of each course being applied toward the certificate.

Applicants who are not enrolled in a graduate degree program at Cleveland State must apply for graduate certificate admission. Certificate admission requirements are detailed in the Admission section of this Catalog. In addition to meeting these admission requirements, certificate applicants must submit a current resume and a one-page statement that outlines:

1   Educational objectives,
2   Career goals, and
3   Significant experience in real estate development.

With program permission, a non-degree graduate student may take the courses noted below, but non-degree graduate students cannot earn a University graduate certificate.

Credits earned for the certificate may apply toward a graduate degree, as approved by the student's graduate program director and in keeping with policies of the College of Graduate Studies.

Apply Now: http://www.csuohio.edu/gradcollege/admissions/apply.html

Certificate Requirements

The required sixteen-credit hour sequence, listed below, includes courses from both the College of Urban Affairs and the College of Business Administration:

PDD 610 Urban Development Process/Market Analysis (4 credits)
PDD 623 Urban Development Finance and Applied Project (4 credits)
FIN 610/710 Real Estate Finance (4 credits)
FIN 612/712 Real Estate Investment (4 credits)

Finance courses do not require sequencing, but the PDD courses must be taken in numerical order.