Cat Nbr	Course Title	Course Rotation	Prerequisites (check online catalog for most recent official version)
	Planned Course Offerings for Fall and Spring Semesters. As of 2/9/18		**All offerings are subject to change depending on faculty resources available.** **Please consult a Mathematics Department Adviser to plan your time at CSU.**
84	Basic Algebra	Every Fall & Spring	
87	Basic Algebra	Every Fall & Spring	
89	Basic Algebra	Every Fall & Spring	
95	Applied Algebra	Every Fall & Spring	Grade of "SC" or better in MTH 87 or suitable placement-test score
116	Foundations of Quantitative Literacy	Every Fall & Spring	Grade of SC or better in MTH 87 or suitable placement-exam score
117	Mathematical Applications in the Real World	Every Fall & Spring	MTH 116
127	Mathematics for Elementary School Teachers I	Every Fall & Spring	A grade of 'SC' or better in MTH 87 or suitable placement-test score
128	Mathematics for Elementary School Teachers II	Every Fall & Spring	Grade of "C" or better in MTH 127
129	Mathematics for Elementary School Teachers III	Every Fall & Spring	Grade of "C" or better in MTH 127
147	Statistical Concepts with Applications	Every Fall & Spring	A grade of 'SC' or better in MTH 87 or suitable placement-test score
148	Mathematics for Business Majors I	Every Fall & Spring	A grade of 'SC' or better in MTH 87 or suitable placement-test score
149	Mathematics for Business Majors II	Every Fall & Spring	a grade of C or better in MTH 148
167	Precalculus Mathematics I	Every Fall & Spring	A grade of 'C' or better in MTH 115 or suitable placement test score
168	Precalculus Mathematics II	Every Fall & Spring	A grade of 'C' or better in MTH 167 or suitable placement-test score.
181	Calculus I	Every Fall & Spring	A grade of 'C' or better in MTH 168 or suitable placement-test score.
181H	Honors Calculus I	Every Fall	A grade of 'C' or better in MTH 168 or suitable placement test score, Honors standing or permission of University Honors program.
182	Calculus II	Every Fall & Spring	A grade of 'C' or better in MTH 181.
182H	Honors Calculus II	Every Spring	A grade of 'C' or better in MTH 181H or suitable placement score. Honors standing or permission of University Honors Program
201	Functions and Modeling	Every Spring	EUT 215. Enrollment is restricted to students seeking teaching licensure in the CSUTeach program.
220	Introduction to Discrete Mathematics	Every Fall & Spring	A grade of 'C' or better in MTH 149 or MTH 182.
281	Multivariable Calculus	Every Fall & Spring	A grade of 'C' or better in MTH 182.
283	Multivariable Calculus For Engineers	Every Fall & Spring	A grade of 'C' or better in MTH 182.
284	Matrices For Engineers	Every Fall & Spring	A grade of 'C' or better in MTH 182.
286	Introduction To Differential Equations	Every Fall & Spring	A grade of 'C' or better in MTH 182.
288	Linear Algebra	Every Fall & Spring	A grade of 'C' or better in MTH 182.
301	Introduction to Number Theory	Every Fall	A grade of "C" or better in MTH 220 or permission of instructor.
311	Numerical Analysis	Every Spring	Grades of "C" or better and at least 6 credits chosen from the following six courses: MTH 220, MTH 281, MTH 283, MTH 284, MTH 286 and MTH 288.
323	Statistics Methods	Every Fall & Spring	A grade of "C" or better in MTH 182. *MTH 323 counts toward the statistics minor; one course from MTH 323 or MTH 347 counts toward the mathematics minor, but not both.*

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325	Patterns, Reasoning, & Proof for Middle School Teachers	Every Fall	Grade of C or better in MTH 115, or ACT Math Score of 22 or higher, or SAT Math score of 520 or higher, or suitable placement test score (MTH 167 level or higher).
326	Number Systems and Operations for Mid Sch Teachers	Every Spring	Grade of C or better in MTH 115, or ACT Math Score of 22 or higher, or SAT Math score of 520 or higher, or suitable placement test score (MTH 167 level or higher).
327	Algebra and Functions for Middle School Teachers	Every Fall	Grade of C or better in MTH 115, or ACT Math Score of 22 or higher, or SAT Math score of 520 or higher, or suitable placement test score (MTH 167 level or higher).
328	Measurement and Geometry for Middle School Teachers	Every Spring	Grade of C or better in MTH 115, or ACT Math Score of 22 or higher, or SAT Math score of 520 or higher, or suitable placement test score (MTH 167 level or higher).
330	Conversational Calculus for Middle School Teachers	Every Spring	Grades of C or better in MTH 325, 326, 327, 328 and 323.
333	Geometry	Every Fall	A grade of "C" or better in MTH 284 or MTH 288.
347	Applied Statistics	Every Fall & Spring	A grade of "C" or better in MTH 147, MTH 323, PSY 311, COM 303, ECN 322, ESC 310, OMS/OSM 201, PSC 351, SOC 353, SWK 305, or UST 404.
358	Abstract Algebra	Every Fall & Spring	A grade of "C" or better in MTH 220 and MTH 288 or permission of instructor.
~~386~~	~~Differential Equations~~		~~A grade of "C" or better in MTH 281 or MTH 283, MTH 288 or MTH 284, and MTH 286 or permission of instructor.~~
396	Junior Seminar	Every Fall & Spring	MTH 182; three of MTH 220, MTH 281, MTH 286 and MTH 288, all grade "C" or better; or departmental approval.
401	Mathematical Modeling	Every Fall	A grade of "C" or better in MTH 284 or MTH 288, MTH 286, and at least one mathematics course numbered 300 or above (MTH 301 recommended) or permission of instructor.
415 (w515)	Real Analysis	Spring-odd years	A grade of "C" or better in MTH 281 or MTH 283, a grade of "C" or better in at least one mathematics course numbered 300 or above, or permission from the instructor.
416 (w516)	Complex Analysis	Fall-even years	A grade of "C" or better in MTH 281 or MTH 283, a grade of "C" or better in a least one mathematics course numbered 300 or above, or permission of instructor.
420 (w520)	Combinatorial Mathematics (also Fall 2018)	Fall-odd years	Grade of "C" or better in MTH 220 and a grade of "C" or better in a 300-level mathematics course or permission of instructor.
421 (w521)	Time Series Analysis	Every Spring	MTH 347 with a grade of "C" or better or permission of instructor.
424 (w524)	Probability Theory and Applications	Every Fall	A grade of "C" or better in MTH 281 or MTH 283, MTH 284 or MTH 288, and a 300-level mathematics course or permission of instructor.
431 (w431)	Categorical Data Analysis	Every Spring	MTH 347 with a grade of "C" or better or permission of instructor.
434 (w534)	Differential Geometry (not Spring 2019)	Spring-odd years	A grade of "C" or better in MTH 281 or MTH 283, MTH 286, and at least one mathematics course numbered 300 or above or permission of instructor.
436 (w536)	Design and Analysis of Experiments	Every Spring	A grade of "C" or better in MTH 347 or permission of instructor.
458 (w558)	Abstract Algebra II	Spring-odd years	A grade of C or better in MTH 358, or permission from the instructor.
467	Applied Regression Models	Every Fall	A grade of C or better in MTH 347 or permission of instructor.
482 (w582)	Topics in Number Theory (also Spring 19)	Spring-even years	A grade of C or better in MTH 301 or permission of instructor.
487 (w587)	Dynamical Systems	Spring-even years	A grade of C or better in MTH 284 or MTH 288, MTH 286, and at least one mathematics course numbered 300 or above, or permission of instructor.
491 (591)	Financial Mathematics	Every Spring	A grade of "C" or better in MTH 281 or 283, or permission of the instructor.
493 (w593)	Special Topics-Toplogy	Fall-even years	A grade of C or better in MTH 286 The course may count toward a major or a minor in mathematics.
493 (w593)	Special Topics-Differential Equations II	Spring-even years	
496	Senior Project	Every Fall & Spring	MTH 396 (grade of S) and at least two other mathematics courses numbered 300 or above, or departmental approval. Prerequisite or corequisite: At least one other mathematics course numbered 400 or above, or departmental approval.
496H	Honors Project	Every Fall & Spring	At least two mathematics courses numbered 300 or above, or approval of the Department Honors Liaison Officer.

	Planned Course Offerings for Fall and Spring Semesters. As of 2/9/18		All offerings are subject to change depending on faculty resources available. Please consult a Mathematics Department Adviser to plan your time at CSU.
Cat Nbr	**Course Title**	**Course Rotation**	**Prerequisites** (check online catalog for most recent official version)
Graduate Courses			
514	Linear Algebra and functions of several variables	Every Fall & Spring	Admission to the MS Program or permission of instructor.
515 (w415)	Real Analysis	Spring-odd years	Admission to the MS Program or permission of instructor.
516 (w416)	Complex Analysis	Fall-even years	Admission to the MS Program or permission of instructor.
520 (w420)	Combinatorial Mathematics	Fall-odd years	Admission to the MS Program or permission of instructor.
521 (w421)	Time Series Analysis	Every Spring	MTH 567 or permission of instructor
524 (w424)	Applications of Probability	Every Fall	Admission to the MS Program or permission of instructor.
525	Math models in eng & sci	Fall-odd years	Admission to the MS Program or permission of instructor.
531 (w431)	Categorical Data Analysis	Every Spring	Admission to the MS Program or permission of instructor.
534 (w434)	Differential Geometry (not Spring 2019)	Fall-odd years	Admission to the MS Program or permission of instructor.
536 (w436)	Design and Analysis of Experiments	Every Spring	Admission to the MS Program or permission of instructor.
567	Applied Regression Models	Every Fall	Admission to the MS Program or permission of instructor.
582 (w482)	Topics in Number Theory (also Spring 19)	Spring-even years	Admission to the MS Program or permission of instructor.
587 (w487)	Dynamical Systems	Spring-even years	Admission to the MS Program or permission of instructor.
591 (w491)	Financial Mathematics	Every Spring	Admission to the MS Program or permission of instructor.
593	Special Topics-Toplogy	Fall-even years	Admission to the MS Program or permission of instructor.
593	Special Topics-Differential Equations II	Spring-even years	Admission to the MS Program or permission of instructor.
593	Special Topics-Abstract Algebra II	Spring-odd years	Admission to the MS Program or permission of instructor.
626	Mathematical Methods in Eng. & Sci. II	Spring-even years	Admission to the MS Program or permission of instructor.
635	Statistical Consulting and Programming	Every Fall	Admission to the MS Program or permission of instructor.
675	Applied Multivariable Statistics	Spring-even years	Admission to the MS Program or permission of instructor.
685	Advanced Data Models	Fall-odd years	Admission to the MS Program or permission of instructor.
686	Reliability and Survival Analysis	Spring-odd years	Admission to the MS Program or permission of instructor.
687	Bayesian Data Analysis	Fall-even years	Admission to the MS Program or permission of instructor.