



## General Curriculum in Mathematics or Concentrations (select one)

### GENERAL CURRICULUM IN MATHEMATICS

This is the pathway for students who do not wish to select a concentration.

CSC/CPE 101 Fund of Comp Sci I or CSC/CPE 235 Fund Comp Sci Scientists & Engr I	4
STAT 301 Stat I or STAT 325 Intro to Prob Mods.....	4
MATH 336 Combinatorial Mathematics .....	4
Tracks (two paired courses representing depth of study with a particular focus) .....	24
Choose <i>three</i> tracks from the following list, with at least one track from these first two listed: MATH 413 and MATH 414 MATH 406 and MATH 482	
MATH 304 and MATH 404 MATH 335 and MATH 435 MATH 344, and MATH 416 or MATH 418 MATH 350, and MATH 341 or MATH 344 MATH 408 and MATH 409 MATH 437 and MATH 453 MATH 440 and MATH 441 MATH 442 and MATH 443 MATH 451 and MATH 452	
Select 12 units from the following:.....	12
MATH 304, 335, 341, 344, 350, 404, 406, 408, 409, 413, 414, 416, 418, 419, 435, 436, 437, 440, 441, 442, 443, 451, 452, 453, 470, 482; CSC/CPE 102, 103, 236, 349; PHYS 132, 133, 211, 301, 302, 322, 323, 405, 408; STAT 301, 302, 325, 425, 426, 427	
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### APPLIED MATHEMATICS CONCENTRATION

CSC/CPE 101 Fund of Comp Sci I or CSC/CPE 235 Fund Comp Sci Scientists & Engr I	4
MATH 304 Vector Analysis .....	4
MATH 344 Linear Analysis II.....	4
MATH 350 or CSC/CPE 102 or CSC/CPE 236.....	4
MATH 413 Intro to Analysis II .....	4
MATH 451 Numerical Analysis I.....	4
STAT 301 Stat I or STAT 325 Intro to Prob Mods.....	4
Tracks (two paired courses representing depth of study with a particular focus) .....	16
Choose <i>two</i> tracks from the following: MATH 408 and MATH 409 MATH 416 and MATH 418 MATH 452 and MATH 453	
Advisor approved electives (form required) .....	12
To be taken outside of the Mathematics Dept with significant applications to mathematics; at least one course at 300-level or above.	
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### PURE MATHEMATICS CONCENTRATION

MATH 336 Combinatorial Mathematics.....	4
MATH 408 Complex Analysis I.....	4
MATH 413 Intro to Analysis II .....	4
MATH 440 Topology I.....	4
MATH 482 Abstract Algebra II .....	4
Select 12 units from the following: .....	12
MATH 406, 409, 414, 435, 441	
Select 8 units from the following: .....	8
CSC/CPE 101 or CSC/CPE 235 MATH 350 STAT 301 or STAT 325	
Select 12 units from the following: .....	12
MATH 304, 335, 341, 344, 350, 404, 406, 409, 414, 416, 418, 435, 436, 437, 441, 451, 452, 453, 470	
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### MATHEMATICS TEACHING CONCENTRATION

CSC/CPE 101 Fund of Comp Sci I or CSC/CPE 235 Fund Comp Sci Scientists & Engr I	4
SCM 300 Early Field Exp, Science/Math (CR/NC) ....	4
MATH 300 Technology in Mathematics Education ...	4
STAT 301 Statistics I .....	4
STAT 302 or STAT 325 or STAT 425 .....	4
MATH 336 Combinatorial Mathematics.....	4
MATH 341 Theory of Numbers.....	4
MATH 419 Intro to the History of Mathematics.....	4
MATH 423 Advanced Mathematics for Teaching .....	4
MATH 442 Euclidean Geometry .....	4
MATH 443 Modern Geometries .....	4
MATH 482 Abstract Algebra II .....	4
Select 4 units from the following: .....	4
CSC/CPE 102, 236; MATH 304, 335, 344, 406, 408, 413, 416, 435, 437, 440, 451, 470; PHYS 132, 133, 302	
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\* In order to satisfy subject matter competency to enter a credential program in mathematics, students must receive a grade of C- or better in the major and teaching concentration courses, and C or better in Math 423, 459, 461, and 462.

### APPLIED PRE-APPROVED ELECTIVE PACKAGES:

Choose 12 units from one of the following categories, with at least one class at the 300 level or above.

ASTR 301*, 302*, 326*
PHYS 132,133,211,301,302,303*,317*,322*,323,405,408,412*,417
STAT 302,323,324,325,330,416,417,418,419,421,423,425,426,430
CSC/CPE 102 or 236,103,225,349,357,448
ME 211*,212*,302*,326,341*
ECON 311,313,408

\* 3-unit courses