MATHEMATICS-B.S.
Statistics, Applied Mathematics Concentrations and Secondary Education Certification; also “No Concentration” option

General Education Requirements
I. Required Skills and Competencies 15 cr
   ___ ENG 106 Writing Intensive First Year Seminar OR ENG 110 Advanced Placement Writing (3 cr)
   May need ENG 050 Basic Writing first, based on test results
   ___ HCS 100 Intro to Human Communication (3 cr)
   ___ Mathematical Competency MAT 225 Discrete Math
   Student may need to take Pre-Calculus first
   ___ HIS 105 Historical Foundations of Global Cultures (3 cr) AND
   ___ HIS 106 Thinking Historically in a Global Age (3 cr)
II. Categories of Knowledge 34 cr
A: Logic/Numbers for Rational Thinking (4 cr)
   ___ MAT 211 Calculus I
B: Literary, Artistic & Cultural Traditions (9 cr)
C: Biological & Physical Sciences (9 cr)
   ___ Environmental Science (Sec. Ed.req.; see depart. for list) ***
D: Political, Economic & Geographic Science (6 cr)
   ___
E: Social & Behavioral Science (6 cr)
   ___ PSY 101 General Psychology *** (Sec. Ed.req.)
III. Library Skills Complete via College/Writing course
Mathematics and Computer Science Requirements 32-33 cr
   ___ MAT 211 Calculus I (4 cr)
   ___ MAT 212 Calculus II (4 cr)
   ___ MAT 213 Calculus III (4 cr)
   ___ MAT 225 Discrete Mathematics (4 cr)
   ___ MAT 313 Statistics I (4 cr)
   ___ MAT 318 Elementary Linear Algebra (3 cr)
   ___ MAT 320 Introduction to Abstract Algebra (3 cr)
   ___ MAT 430 Complex Analysis (3 cr) OR
   ___ MAT 441 Real Analysis (3 cr)
   ___ CSC 180 Microcomputer Basic (3 cr) OR
   ___ CSC 110 Computer Science I (3 cr) AND
   ___ CSC 106 Computer Science I Lab (1 cr)
Concentration Requirements 29-45 cr
Students are encouraged to choose one of the following concentrations:
Statistics, Applied Math, & Secondary Education Certification. It is also possible
   to obtain the degree without a concentration.
Note: for each option, “Allied electives” can be 300 level or above ACC,
   BIO, CHM, CSC, ECO, ESS, MAT, or PHY.
Statistics Concentration* 29 cr minimum
   ___ MAT 413 Statistics II (3 cr)
   ___ MAT 476 Probability (3 cr)
   ___ MAT 486 Mathematical Statistics (3 cr)
   ___ MAT 300/400 Math Level Elective (3 cr)
   ___ MAT 300/400 Math Level Elective (3 cr)
   *Allied electives/Interdisciplinary sequence (14-15 cr)
   See department for lists.
Applied Mathematics Concentration* 29 cr minimum
   ___ MAT 322 Differential Equations (3 cr)
___ MAT 326 Mathematical Modeling (3 cr)
___ MAT 400 Level Applied Elective (3 cr)
[Choose from MAT 410, 413, 422, 476 or 491.]
___ MAT 400 Level Math Elective (3 cr)
___ MAT 400 Level Math Elective (3 cr)
*Allied electives/Interdisciplinary sequence 14-15 cr or minor
See department for lists.
B.S. in Mathematics without Concentration* 24 cr minimum
___ MAT 300/400 Level Math Elective (3 cr)
___ MAT 300/400 Level Math Elective (3 cr)
___ MAT 300/400 Level Math Elective (3 cr)
___ MAT 400 Level Math Elective (3 cr)
___ MAT 400 Level Math Elective (3 cr)
*Allied electives (3 courses) 9 cr minimum or minor
Secondary Education Certification *** 45 cr
___ MAT 326 Mathematical Modeling (3 cr)
___ MAT 333 Geometry (3 cr)
___ MAT 400 History of Mathematics (3 cr)
___ MAT 400 Level Math Elective (3 cr)
Professional Sequence:
___ TCH 207 Org. & Psych. Found. in Secondary Education (3 cr)
___ EEC 273 Introduction to Exceptionalities (3 cr)**
___ EEC 423 Effective Instructional Strategies (3 cr)
___ EEC 483 Assessing Students for Curricular Decision Making (3 cr)
___ RDG 413 Teaching Reading to English Language Learners (3 cr)
___ EDU 371 Technology in the Classroom (3 cr)
___ EDU 434 Teaching of Math. in the Secondary School I (3 cr)
___ EDU 435 Teaching of Math. in the Secondary School II (3 cr)
___ EDU 495 Student Teaching & Professional Practicum (12 cr)
Total Graduation Requirements 120 cr
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GPA Needed to Declare: 2.0 3.0 for secondary education
Semester I MAT 211 Calculus I (4 cr)
MAT 225 Discrete Math (4 cr)
NOTE: Recommended Course Load: 16 credits
Semester II MAT 212 Calculus II (4 cr)
NOTE: Recommended Course Load: 14 or 17 credits
* May replace Allied Electives (or Allied Electives/Interdisciplinary
Sequence combination) by a minor in any discipline.
** All education majors must pass the first level of the PAPA assessments in
reading, math, and writing between 48 and 60 credits of course work. These
basic skills tests must be passed before students are permitted to take any
300 level or above education course.