

BA in Mathematics

Credit toward a mathematics major will not be given in any MATH course or in CSCI 2310, 2311 with a grade less than C. The degree offers two concentration areas: mathematics and statistics. The mathematics concentration requires a minor and the statistics concentration requires specified cognates in lieu of a minor. Minimum degree requirement is **126 s.h.** of credit as follows:

1. Foundations curriculum (See Section 4, Foundations Curriculum Requirements for all Baccalaureate Degree Programs.).....42 s.h.

2. Foreign language through level 1004.....12 s.h.

3. Common core.....30 s.h.

MATH 2171, 2172, 2173. Calculus I, II, III (4,4,4) (F,S,SS) (FC:MA) (P for 2171: minimum grade of C in any of MATH 1083,1085, 2122; P for 2172: minimum grade of C or 2122 with consent of instructor; P for 2173: MATH 2172 with a minimum grade of C)

MATH 2300. Transition to Advanced Mathematics (3) (P: MATH 2171)

MATH 3256. Linear Algebra (3) (F,S,SS) (P: MATH 2172)

MATH 3263. Introduction to Modern Algebra (3) (WI) (F,S) (P: MATH 2300, 3256)

MATH 3307. Mathematical Statistics I (3) (F,S) (P: MATH 2172)

MATH 4101. Advanced Calculus I (3) (F,S) (P: MATH 2173, 2300; or consent of instructor)

MATH 4331. Introduction to Ordinary Differential Equations (3) (F,S) (P: MATH 2173)

4. Cognate..... 4 s.h.

CSCI 2310,2311. Algorithmic Problem Solving and Programming Laboratory (4,0) (F,S,SS) (P: MATH 1065; C for 2310: CSCI 2311; C for 2311: CSCI 2310)

5. Concentration area to include minor or specified cognates as listed below.

(Choose one area.).....31-40 s.h.

Mathematics (30-36 s.h.):

Choose 6 s.h. of MATH electives numbered above 2999, excluding MATH 3229, 3237, 3239

Minor (24-30 s.h.)

Statistics (27 s.h.):

Choose 9 s.h. of MATH electives numbered above 2999, excluding MATH 3229, 3237, 3239, and excluding cognates listed below.

Cognates (18 s.h.):

CSCI 5774. Programming for Research (3) (F,S) (P: General course in statistics or consent of instructor)

MATH 3308. Mathematical Statistics II (3) (F) (P: MATH 3307)

MATH 5031. Applied Statistical Analysis (3) (WI) (P: MATH 2228 or 3308; 3584; or equivalent)

MATH 5801. Probability Theory (3) (P: MATH 2173 or 3307)

Choose 6 s.h. from:

ECON 3343. Econometrics (3) (WI) (F,S) (FC:SO) (P: DSCI 2223 or CSCI 2600; ECON 2133; MATH 2283)

ECON 4430. Business Cycles and Forecasting (3) (P: ECON 3244, 3343; or consent of instructor)

MATH 4201. Introduction to Stochastic Processes (3) (S) (P: MATH 3307 or equivalent or consent of instructor)

MATH 5000. Introduction to Sampling Design (3) (P: MATH 3308 or 3229 or consent of instructor)

MATH 5132. Probabilistic Methods in Operations Research (3) (P: MATH 2173, 3256, 3307; or 5801)

OMGT 4493. Quality Management (3) (F) (P: OMT 3123)

6. Electives to complete requirements for graduation.