

3, 4, 5 on AP calculus AB, or 3 on AP calculus BC

224/225, Calculus I

5 on AP calculus AB, 4 or 5 on AP calculus BC, B or better in Calculus I while in high school, A or A- in Calculus I.

4 on AP calculus BC

226, Calculus II (1/2)

314, Discrete Math

230, Honors Calculus

5 on AP calculus BC

227, Calculus II (2/2)

330, Number Systems

304, Linear Algebra

323, Calculus III

324, ODE Engineering

Legends

- Prerequisite
- - - - - Alternative prerequisite
- ≡ Alternative requirement
- Every Semester
- Every Fall Only
- Every Spring Only
- Varies

Lower level

Upper level

Analysis

- 375, Complex Analysis**
- 472, PDE & Math. Analysis**
- 471, Partial Diff. Equations**
- 371, Ordinary Diff. Equations**
- 372, Dynamical Systems**
- 478, Real Analysis I**
- 479, Real Analysis II**

* 330 is not a prereq for 471.

Algebra

- 401, Modern Algebra I**
- 402, Modern Algebra II**
- 404, Adv. Linear Algebra**
- 407, Number Theory**

* 304 is not a prereq for 407.

Geometry/Topology

- 461, Topology**
- 463, Differential Geometry**
- 465, Foundation of Geometry**

* 304 and 323 are not prereqs for 465.

Statistics

- 346, Intro Financial Math**
- 447, Probability Theory**
- 448, Math. Statistics**
- 454, Financial Math**
- 450, Life Contingency I**
- 452, Life Contingency II**
- 455, Regression Models**
- 457, Statistical Learning**
- 458, Time Series**

329, Computing

* 329 is a lower-level course.

Combinatorics

- 386, Combinatorics**
- 381, Graph Theory**

Computer Science: CS 373, 375, 432, 433, 435, 436, 458, 460, 471, 472

Others: 356, 489

Review course descriptions and degree requirements in the University Bulletin.
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324 is alternative to 371 or 372 as a prereq for 471 and 472 (useful for engineering students).

Upper-level Courses

Algebra

401, Modern Algebra I

402, Modern Algebra II

404, Adv. Linear Algebra

407, Number Theory

* 304 is not a prereq for 407.

Foundation Courses

Combinatorics

386, Combinatorics

381, Graph Theory

Geometry/Topology

461, Topology

463, Differential Geometry

465, Foundation of Geometry

* 304 and 323 are not prereqs for 465.

Legends

→ Prerequisite

--- Alternative prerequisite

Every Semester

Every Fall Only

Every Spring Only

Varies

Others: 356, 489

Computer Science: CS 373, 375, 432, 433, 435, 436, 458, 460, 471, 472

Review course descriptions and degree requirements in the University Bulletin.

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Analysis

375, Complex Analysis

472, PDE & Math. Analysis

471, Partial Diff. Equations

* 330 is not a prereq for 471.

324, ODE Engineering

371, Ordinary Diff. Equations

372, Dynamical Systems

478, Real Analysis I

479, Real Analysis II

329, Computing

Statistics

346, Intro Financial Math

447, Probability Theory

448, Math. Statistics

450, Life Contingency I

452, Life Contingency II

454, Financial Math

455, Regression Models

457, Statistical Learning

458, Time Series

* 346 only requires 227.

323, Calculus III

330, Number Systems

314, Discrete Math

314 is alternative to 330 as prereq for 448, 381 and 386 (useful for engineering students).

304, Linear Algebra

For all majors:

- Finish 330 as soon as possible, no later than by the end of the fourth semester, preferably the third semester.
- Finish 304, 323 and 330 before advancing to an upper level course, even if they may not be the official prerequisite.
- Upper level courses are defined as MATH course above 330, excluding 449.
- For all courses, grade of C or better is required to count towards the major and as a prerequisite.
- Prerequisite requirements are strictly enforced. You will be automatically dropped from a course if you did not get C or better in the prerequisite course.
- Meet with your assigned faculty advisor.
- Plan to take 2 math courses per semester on average.
- Make a contingency plan – what if you flunk a class?

For BA Math Track majors.

1. Finish the five lower-level courses.
2. Take one course from each of the light yellow boxes (analysis, algebra and geometry/topology).
3. Take two more upper-level courses, as long as the two are NOT BOTH from the SAME light yellow box.
4. Within the five upper-level courses above, make sure that there exist a pair of courses from a pre-defined list shown in the University Bulletin.

For Actuarial majors:

- Take 346, 447 and 448 as soon as possible since they are prerequisites for many electives.
- It is too late to take 448 in the senior year.
- Take the School of Management VEE courses if you could, but they are not required.

Transfer Courses

- Seek pre-approval from the Director of Undergraduate Studies before registering courses outside of Binghamton, even if they appear on the transfer equivalency table.
- Online courses cannot be transferred.
- Foreign courses, especially summer/winter ones, are generally not transferred.
- Upper-level courses are rarely transferred.