Undergraduate Programs (Archived)

We offer the following undergraduate degree programs:

- **Bachelor of Arts** in **Mathematical Sciences**, with
  - a **Mathematics** Track, and
  - an **Actuarial Science** Track.
- **Bachelor of Science** in **Mathematical Sciences**, with
  - a **Mathematics** Track, and
  - an **Actuarial Science** Track.
- Minor in Mathematics

We offer a few accelerated degree programs partnering with other departments and schools on campus.

Frequently Asked Questions

- Questions about the Calculus Placement Test
- Questions about registering for calculus classes
- AP exam equivalencies

Degree requirements

Read the University Bulletin for the official descriptions of the undergraduate programs, degree requirements **(including minor requirements)**, courses, and links to pages about admissions.

The requirements depend on the year in which the student first matriculated at Binghamton University. Go to DegreeWorks and find out the year next to “Academic Year” (at the top right corner.)

- 2017-2018 Requirements
- 2016-2017 Requirements
- 2015-2016 Requirements
- 2014-2015 Requirements
- 2013-2014 Requirements

In addition to the departmental major requirements, the current Harpur Requirements can be found in this webpage.

To declare or drop a mathematics major or minor, click here. You need to have logged in to your BMail account to see the form properly. **Please do not declare your major more than once in a short time period to reduce human errors.** To change a major within the department, simply drop the old major first and then declare the new major.

Any student wishing to declare mathematics major needs to be admitted to Harpur College of Arts and Sciences first (otherwise the declaration may not be processed).

For current students

- Information on the Actuarial Program
- Math Education at Binghamton
- Department course schedules
- Help room schedules
- Office Hours
- The Calculus Homepage
  - Calculus Placement Test
  - Introduction to Calculus (Math 223)
  - Calculus I (Math 224/225)
  - Calculus II (Math 226/227)
  - Calculus III (Math 323)
  - Calculus for Business and Management (Math 220)
  - Algebra and Trigonometry (Math 108)
- Linear Algebra Homepage
- Graduation with Honors

Taking courses outside of Binghamton

If you are currently a Binghamton student and wish to take a math course outside of Binghamton University, with the intention to transfer the course for credits, you are advised to consult with the Director of Undergraduate Studies first before enrolling in that course for pre-approval. Note that not every outside course is allowed to be transferred, because the contents and requirements of some courses may be different from what we have at Binghamton University, even with identical course names. Before transfer credits are allowed, the content of the outside course needs to be carefully reviewed. Please contact the Director of Undergraduate Studies and submit the syllabus and schedule of that course for review. In particular, we normally do not approve online courses for transfer. In certain cases we may approve transfer credits only after you pass our final exam in the course with a grade of C or better.

Summer/winter courses oversea will not be approved

The Department of Mathematical Sciences will not consider transfer credits for courses taken in programs outside of the U.S. that are not part of a regular degree-granting curriculum (in particular, summer and winter courses outside of the U.S.) Numerous concerns have emerged in the past few years about the academic integrity of these courses. Exceptions of this policy are courses from a whitelist of programs and institutions, including programs organized by or associated with Binghamton University (such as the study abroad program, and collaborative programs with Binghamton University's foreign partner institutions). The Department of Mathematical Sciences will continue to review transfer credit requests for courses taken in the U.S., and courses taken outside of the U.S. as part of a regular degree-granting curriculum (examples of the latter case are courses that a student previously took in XYZ university as a full-time student prior to transferring to Binghamton University.)

Double major and major-minor

Many students have broader and diversified academic interests. Sometimes, these could be pursued through double-major or major-minor combinations. For example,

- double major in BA Actuarial Science and BS Economics;
- major in BA Mathematics and minor in Computer Science (You need to consult the CS department for their minor program);
- major in Computer Science and minor in Mathematics (Read the section on minor in the degree requirements listed above to find out more about the math minor).

Double degree / double major from two schools

Many of our Binghamton students challenge themselves by enrolling in the double degree / double major program which results in two degrees or two majors from two schools in the university. For example, a student can obtain a BS degree in Business Administration from the School of Management and a BA degree in Mathematics (Actuarial Science track); or he/she can obtain a degree in computer science from the Watson School of Engineering and Applied Science and a degree in mathematics. More information about the double degree / double major program can be found in this website.

Extracurricular

- The Undergraduate Math Club and MAA student chapter.
  - Problem of the Week from the Math Club.
- The Data Science and Analytics Club
- The Undergraduate Actuarial Association.
- Undergraduate Research Center: current research opportunities.
- Binghamton has a local chapter of Pi Mu Epsilon, the National Mathematics Honor Society.
- The department is a participant in the Seaway Section of the MAA.

Advising

Every student declaring a math major is assigned a faculty advisor, and should meet regularly with the advisor to discuss course selection and career goals. Students are free to choose another adviser from among the mathematics faculty once they get to know the faculty better. In addition, any issue related to the major/minor can be discussed with the Director of Undergraduate Studies.

- Harpur College Student Advising Office
- FAQ from the Director of Undergraduate Studies
- Office of External Scholarships, Fellowships & Awards for scholarship opportunity.

For new / transfer students

- Course credits by AP exams. These depend on the semester of admission to the university
- Course credits by IB exams.
- Course credits by transfer from various colleges

For prospective students and parents

If you are a prospective student or a parent of a prospective student, and are interested in visiting the department and talking with our faculty members, you can make an appointment with the department secretary.

- What Do Mathematicians Do?
- What Do Statisticians Do?
- What Do Actuaries Do?

Read this blog by Tim Hopper on how a math major becomes a **data scientist**, and why math background is helpful in this field.

All questions regarding admission to Binghamton University should be directed to the university level admissions office. The department does not handle admission, nor can it influence admission

decisions.

Once you are matriculated, you can declare the major (see the yellow box above), or come and talk with the Director of Undergraduate Studies about major choices.

Graduation with Honors

Department of Mathematical Sciences has departmental graduation honors. Binghamton University has university-wide graduation honors. We also host an honor society.

Departmental Graduation Honors

Learn about departmental graduation honors from this page.

University-wide Graduation Honors

Harpur College students must have at least 48 graded credits from Binghamton University and have no missing grades or Incompletes. In addition, cumulative Grade Point Average requirements:

- Students with cumulative GPA of 3.85 or greater (on a 4.0 scale) receive the designation *summa cum laude*;
- Students with cumulative GPA of between 3.70 and 3.84 receive the designation *magna cum laude*;
- Students with cumulative GPA of between 3.50 and 3.69 receive the designation *cum laude*.

The department also hosts a local chapter of Pi Mu Epsilon, the National Mathematics Honor Society.

Awarding Excellence

In addition to departmental graduation honors, the department grants several awards each year to students who have made outstanding achievement in mathematical sciences. These awards include the following.

- **Award for Excellence in Mathematical Sciences** – presented to outstanding graduating seniors majoring in mathematical sciences.
- **Guardian Life Insurance Company of America Award** – recognize and reward outstanding undergraduate students who have interests in the field of actuarial science.
- **Helen P. Beard Award for Excellence in Undergraduate Mathematics** – established by Gerald Miller '67 in honor of Professor Emeritus Helen Pearl Beard, who retired in 1982 and passed away in January of 2004 at the age of 88. Presented to a junior or senior major who demonstrates qualities exemplified by Professor Beard.

- **Lawrence I. Wilkins Scholarship** – awarded to a Harpur student majoring in math with academic excellence. Recipients are selected in the Spring for the following academic year.
- **Miguel Arcones Memorial Award** – established in 2013 to honor the memory of Professor Miguel Arcones. Awarded to a graduating senior who has demonstrated academic excellence. Preference will be given to a student in the actuarial program.

Many awards are made possible because of donations from our alumni and friends. Read the actuarial program page for more information on the actuarial awards.

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http://www2.math.binghamton.edu/ - **Department of Mathematics and Statistics, Binghamton University**

Permanent link:
http://www2.math.binghamton.edu/p/ug-old-2019

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