

Check out the [Advising Hours and \(Virtual\) Locations](#) during the COVID-19 outbreak.

Undergraduate Advising

Declare, Drop, and Change Major/Minor

To declare or drop a major or minor in the Department of Mathematical Sciences, fill in this Google Form. To change from one major to another, simply drop the old major, then declare the new one.

You need to log in to your Bmail account to see the form. **Please do not declare your major multiple times in a short time period to avoid human errors.**

Any student wishing to declare a major in the Department of Mathematical Sciences needs to be admitted to Harpur College of Arts and Sciences first; otherwise, the declaration can not be processed.

If you are new to the math major/minor, please spend a few minutes to read answers to some Frequently Asked Questions, compiled by [Xingye Qiao](#), the Director of Undergraduate Studies.

Degree Requirements

Read the University Bulletin for the official descriptions of the undergraduate programs, major requirements, and minor requirements. The requirements depend on the student's *catalog year*. Go to DegreeWorks and find out your *catalog year* near the top-right corner, next to "Academic Year".

In addition to the major/minor requirements, the current Harpur College requirements can be found on this webpage.

Courses and Prerequisite

Unofficial course schedules for the math department, Course Descriptions, and Course Syllabi can be found online.

When a student plans for the coursework, it is very important to pay attention to

1. the prerequisite dependency between courses, and
2. the semester that a course is typically offered.

Unlike in some other disciplines, prerequisite does matter in mathematics. Moreover, some courses are only offered in the fall and some only in the spring. Students who do not pay enough attention to these details may find themselves strangled in an unfortunate situation in which they need to take four classes within the next 2 semesters to graduate, but class D requires class C, class C requires class B, class B requires class A, and that class A is not offered in the current semester.

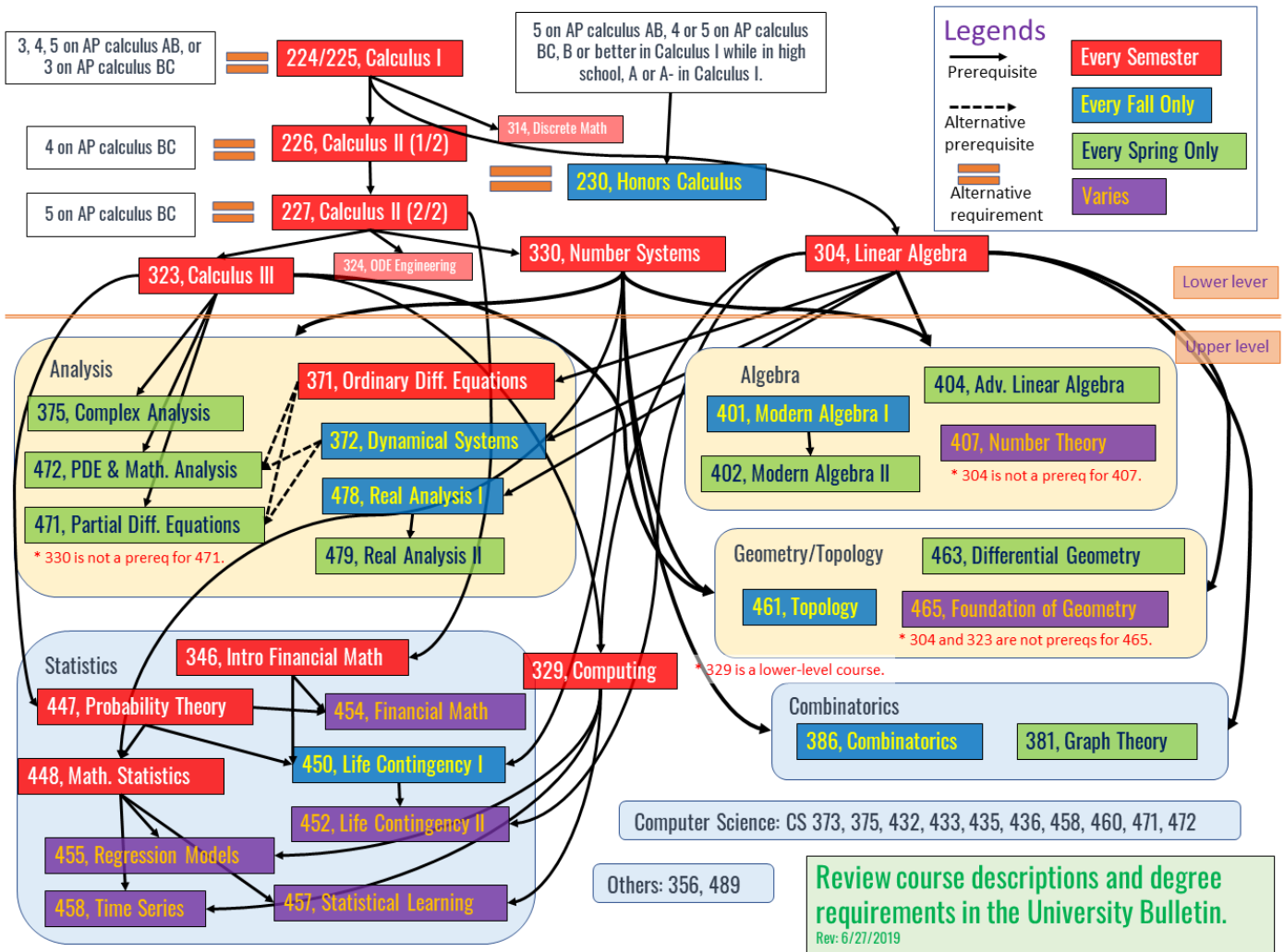
In rare cases, students may need a temporary waiver of the prerequisite for course registration purposes. This may happen, for example, if the student plans to take Calculus II over the summer, but she needs to register Calculus III for the fall semester during the spring semester. Use the Prerequisite exception request form from [this webpage](#) to override the prerequisite temporarily. Note that typically you are required to present proof that you have passed the prerequisite course at the beginning of the semester; otherwise, you will be dropped from the class.

Advising Resources

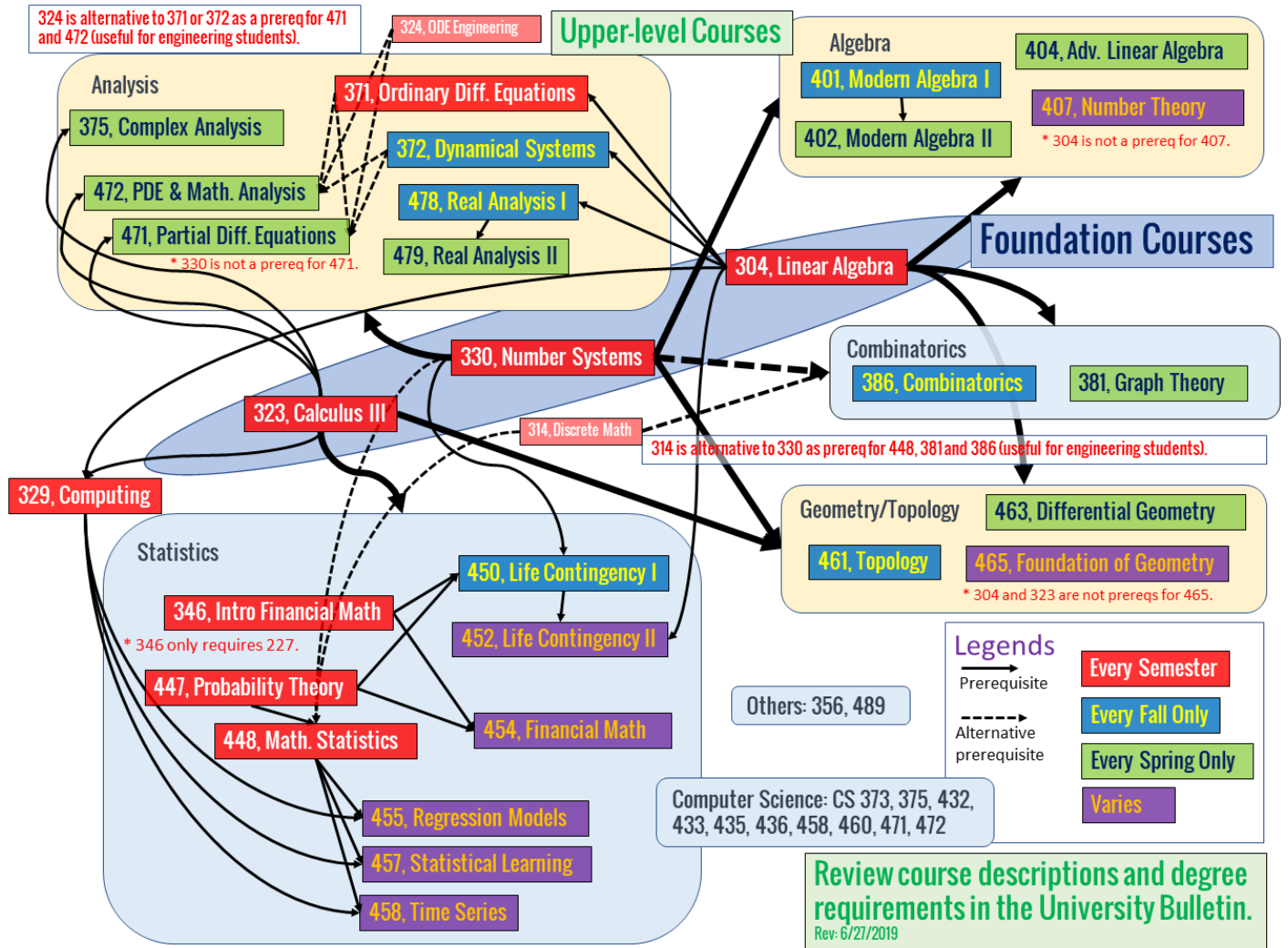
Every student declaring a math major is assigned a faculty advisor and should meet regularly with the advisor to discuss course selection and career goals. Students are free to choose another adviser from among the mathematics faculty once they get to know the faculty better. Additionally, any issue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

In addition to the faculty advisor and the undergraduate director, students can also seek help from Advising Liaison David Biddle (biddle@math.binghamton.edu). The Advising Liaison is the *de facto* advisor for students who are interested in math but has not declared the math major as well as those math majors who are still taking lower-level courses.

Below is an overview of undergraduate courses in the math department, excluding some non-major courses. It shows the prerequisite dependency between courses. Please refer to the University Bulletin for the exact requirements for the degree.



Below is a zoom-in view of the above infographic, focusing on the upper-level courses.



Below are some tips for math majors.

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.

Download

the original PDF file for the above infographics.

Please note that these tools cannot serve as an alternative to the University Bulletin and a faculty advisor.

Grade Requirements

- Any math course in which a student earns a grade of C- or less is *not* acceptable as a prerequisite for any other course offered by the Department of Mathematical Sciences unless stated otherwise in the course description.
- Any math course in which a student earns a grade of C- or less *cannot* be used to fulfill the requirements of the math major or minor.
- Math courses may only be repeated once to meet the above minimum grade requirements for the major. No course for the major may be taken more than twice. **Students who fail to receive a grade of C or better after two attempts in a required major course will be dropped from the major.** Withdrawals do not count towards the attempt limit. Students who are seniors may petition for an exception to this policy.
- A pass grade (P) does not count toward the major or minor unless the only grade available is Pass/Fail; in this case, consent of the Department is required.
- A student who has received credit for a course may not take one of its prerequisites for credit at a later time.

Transfer Credit

Transfer Credit for New Students

Students may earn credit for coursework completed in high school through AP, IB, CLEP and other exams. Please view the policies and criteria on this page for complete details. For example:

- Course credits by AP exams.
- Course credits by IB exams.

Students may also earn credit from courses taken in previous institutions. Use these tables to determine what courses from selected colleges and universities will transfer as equivalent courses.

Transfer Credit for Current Students

Current students of Binghamton University may earn credit by taking courses at a different university or college during the summer or winter session. Here are a few brief instructions and resources to help you understand the transfer process.

If you wish to take a math/stats course outside of Binghamton University, with the intention to transfer it back for credits, you **must** consult with the math department Director of Undergraduate Studies for pre-approval before enrolling in that course. Note that not every course is allowed to be transferred. Before transfer credits are allowed, the content of the 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.

Please note that it is very rare to transfer an upper-level math course, for a few reasons. First, such courses typically require an introduction to proof course as the prerequisite, and many colleges (especially community colleges) simply do not offer them in the summer or winter. Second, some universities or colleges may teach the course at a different level from us. Third, an upper-level math course requires significant effort from the students which makes it unsuitable for summer or winter sessions.

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.)

Calculus

- [Questions about the Calculus Placement Test](#)
- [How to register for calculus classes](#)
- [Help room schedules](#)
- [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 \(Math 108\)](#)



Graduation with Honors

Every semester the Department of Mathematical Sciences grants to some of our best graduating majors a distinction called “honors”. To receive the distinction, a student has to, as a minimum, have at least 3.5 grade point average for the major courses. In addition, a student should either be in a BS program, or, if in a BA program, have a strong record of success in mathematics or actuarial science (like above 3.9 GPA, independent work in mathematics, significantly more coursework in the math courses than what is required by the BA program, significantly more actuarial exams passed than the norm, in the case of a BA actuarial science major, research activities in mathematics, etc). These are just some of the guiding criteria, but the final decision is made by the Undergraduate Committee after careful review of the students' files.

In recent semesters, we have decided to call for self nomination. Every student who is graduating in the current semester, and satisfies the above criteria, or has some other compelling reason to qualify for honors, should self-nominate himself or herself by filling an online form.

The online form for self nomination will be sent out to all math majors by email. If you are a graduating student who has not received the email containing the link to the self nomination form 4-5 week into the semester, you should

make contact with the Director of Undergraduate Studies.

Double major and minor

Many students have broad 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.

Many 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.

Clarification on the 4th lecture day

Some math courses above 330 are scheduled 4 times a week. Any such class will normally meet MWF and the use of the 4th day is up to the instructor. Some instructors may choose to use it just for tests and exams, some may have review sessions or/and recitations, some may hold office hours, some may choose to give lectures (either on a regular basis or from time to time). It is the students' responsibility to make them available during the 4th lecture.

Below are some additional resources.

- Harpur College Student Advising Office
- FAQ from the Director of Undergraduate Studies
- External Scholarships and Undergraduate Research Center for scholarship opportunities.

From:

<https://www2.math.binghamton.edu/> - **Binghamton University Department of Mathematical Sciences**

Permanent link:

<https://www2.math.binghamton.edu/p/advising>

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