MATHEMATICS

About the Program

Our B.S. in mathematics equips students with a well-rounded skill set in both pure and applied mathematics. Students take a range of core and advanced courses to build strong foundations in both mathematics and science.

Outcomes & Opportunities

- Math majors gain hands-on, real-world experience through our Faculty-Student Research Program and internship opportunities.

- Graduates of our department have continued their education at top schools across the country, including: Boston University, Georgetown University, University of California, University of Pennsylvania, Wharton School of Business and Yale University.

- While many graduates choose to work in academia, there are many career options in both the private and non-profit sectors. From military service to financial services, our graduates have a broad scope of successful career outcomes. Here are just a few examples:

  – Navy Officer, *Naval Surface Warfare Center*
  – Portfolio Manager, *Vanguard*
  – Economic Analyst, *Millennium Challenge Corporation*
  – Actuarial Associate, *Voya Financial*
  – Financial Analyst, *United Healthcare*

Among the TOP 10 IN THE NORTH for 28 years

— U.S. News & World Report's Best Colleges

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SUCCESS AHEAD

admissions.scranton.edu/math

MATHEMATICS CURRICULUM

	Department & Number - Descriptive Title of Course	Fall Cr.	Spr. Cr.
FIRST YEAR			
MAJOR (GE QUAN)	MATH 114 - (Q) Calculus I – MATH 221 - Calculus II	4	4
COGNATE	CMPS 134 - Computer Science I/CMPS 134L	4	
GE ELECT	FREE ELECT - Free Elective [a]		3
EP FYDT-FYOC - GE WRTG	Level I Digital Technology (FYDT)-Level I Oral Communication (FYOC) – WRTG 107 - (FYW) Composition	3	3
GE PHIL-T/RS	PHIL 120 - Introduction to Philosophy – T/RS 121 - (P) Theology I: Introduction to the Bible	3	3
GE HUMN	HUMN ELECT - Humanities Electives [a]	3	3
GE FYS	First Year Seminar [1]		
		17	**16**
SECOND YEAR			
MAJOR	MATH 222 - Calculus III – MATH 299 - (EPW) Introduction to Mathematical Proof	4	4
MAJOR	MATH 351 - Linear Algebra		3
COGNATE (GE NSCI)	PHYS 140/PHYS 140L - (E) Elements of Physics I – PHYS 141/PHYS 141L - (E) Elements of Physics II	4	4
GE PHIL-T/RS	PHIL 210 - Ethics – T/RS 122 - (P) Theology II: Introduction to Christian Theology	3	3
COGNATE	COGNATE ELECT - Cognate Elective [2a]	3	
		14	**14**
THIRD YEAR			
MAJOR	MATH 446 - Real Analysis I – MAJOR ELECT - Major Elective [3a]	3	3
MAJOR	MATH 448 - Modern Algebra I – MAJOR ELECT - Major Elective [3a]	3	3
COGNATE	COGNATE ELECT - Cognate Electives [2a]	3	3
GE HUMN	HUMN ELECT - Humanities Electives [a]	3	3
GE S/BH	S/BH ELECT - Social/Behavioral Electives [a]	3	3
		15	**15**
FOURTH YEAR			
MAJOR	MATH ELECT - Mathematics Electives [3a]	9	6
COGNATE	COGNATE ELECT - Cognate Electives [2a]	3	3
GE PHIL OR T/RS	PHIL ELECT - Philosophy Elective or T/RS ELECT - Theology Elective [a]		3
GE ELECT	FREE ELECT - Free Electives [a]	3	3
		15	**15**
		Total: 121 Credits	

CONTACT INFORMATION

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1.888.SCRANTON *or visit* admissions.scranton.edu

[1] The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

[2] Cognate electives must be used to complete a minor, a concentration, a second major, secondary-education certification, or a package of courses pre-approved by the department.

[3] Electives for Mathematics majors: Major electives are selected from Mathematics courses numbered above MATH 300; also PHYS 350, PHYS 351 or CMPS 364. A student must select as an elective at least one of MATH 447 or MATH 449, and at least one course from each of the following three sets: (1) Analysis Set: MATH 447, MATH 460, MATH 461, MATH 462; (2) Algebra/Geometry Set: MATH 345, MATH 346, MATH 449; (3) Applied Set: MATH 312, MATH 320, MATH 341, MATH 360, MATH 361, MATH 368, MATH 371. Most Mathematics electives are offered every other year. Check with the department chair for the current schedule.

*Free electives, majors electives, cognate electives, and/or GE electives may be used to fulfill the GE requirements of a second EPW II course and two D courses.

The results of the placement tests administered prior to the first semester assist students and their advisors in choosing the proper beginning-level mathematics sequence and the proper entry-level within that sequence. If a course is a prerequisite for a second course, directly or indirectly, and a student receives credit for the second course then that student will not be allowed to register for the prerequisite course. Mathematical Sciences majors are required to take the Math Major Field Test in order to graduate.

Curriculum grid effective for the 2022-23 academic year in accordance with the undergraduate course catalog.