



Mathematics

Associate in Science Degree in Liberal Arts and Sciences

The Mathematics option of the Liberal Arts and Sciences program prepares graduates for transfer into the junior year of a baccalaureate degree program in mathematics or a related area.

PROGRAM OUTCOMES

- Apply a range of mathematical skills spanning fundamental concepts to more advanced mathematical concepts;
- Apply quantitative knowledge, including the required technological skills and theoretical knowledge;
- Demonstrate critical thinking skills to solve real world problems using mathematical modeling;
- Communicate methods of solutions and results to problems using mathematical language and notation.

Admission to the program requires a high school diploma or its equivalent with one year of laboratory science (biology, chemistry, physics) and four years of mathematics including algebra I and II, plane geometry, and algebra with trigonometry; two years of a world language are recommended. Students who have not taken these courses or who have not completed them within the last five years may take appropriate preparatory courses at the college.

This program may be pursued part-time or full-time, and may be completed by daytime or evening attendance. It is recommended that students plan coursework and electives carefully and consult an academic advisor regularly.

Mathematics students have successfully transferred to colleges and universities throughout New Jersey and across the nation.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
MAT 151	Calculus I (4/0)	4
— —	Science elective ¹	4
— —	Social Science general education elective	3
SECOND SEMESTER		
CSW 100	College Success and Personal Wellness (2/0)†	2
ENG 102	English Composition II (3/0)	3
MAT 152	Calculus II (4/0)	4
— —	Science elective ¹	4
— —	Humanities general education elective	3
THIRD SEMESTER		
MAT 251	Calculus III (4/0)	4
CMN 111	Speech: Human Communication (3/0)	3
OR		
CMN 112	Public Speaking (3/0)	3
— —	World Language elective ²	3
— —	General Education elective ³	3
— —	Elective	3
FOURTH SEMESTER		
MAT 252	Differential Equations (4/0)	4
MAT —	Mathematics elective ⁴	3-4
— —	World Language elective ²	3
— —	General Education elective ⁵	3
— —	Elective	3
		62-63

¹ University Physics recommended. Select also from BIO 101, 102, 201, 202; CHE 101, 102, 201, 202.

² With advisor approval, the following may be substituted: COS 101, 102; PHI 102.

³ Select course from either Social Science or Humanities general education categories.

⁴ Select from MAT 201, 208; COS 204.

⁵ Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.

† Some exemptions apply. Consult academic advisor for details.