Yeshiva University
Stern College for Women
Academic Advisement

Mathematics

Total Credits: **42+**

Department Chair: Professor Marian Gidea
marian.gidea@yu.edu

Find the Website here

The department of mathematical sciences offers degrees in three concentrations:

1. **Specialization in Pure and Applied Mathematics**
2. **Specialization in Computational Science**
3. **Specialization in Actuarial and Financial Mathematics**

Details for each specialization can be found on pages 2-4

Mathematics Minor Total Credits: **21**

REQUIRED COURSES

Course #	Course Name	Credits
MATH 1412	Calculus I	4
MATH 1413	Calculus II	4
MATH 1510	Multivariable Calculus	4
MATH 2105	Linear Algebra	3

ELECTIVES (6 credits)

Two (2) MATH courses 1500 or higher

Note: Graduate courses in Mathematics are open to undergraduate students who successfully completed Multivariable Calculus and Linear Algebra.

Specialization in Pure and Applied Mathematics
Total Credits: **42+**

REQUIRED COURSES (8 courses, 27 credits)

Course #	Course Name	Credits
MATH 1412	Calculus I	4
MATH 1413	Calculus II	4
MATH 1504	Discrete Mathematics & Application	3
MATH 1510	Multivariable Calculus	4
MATH 1520	Advanced Calculus 1 (or MAT 5300)	3
MATH 2105	Linear Algebra	3
MATH 2461	Probability Theory	3
MATH 2601	Ordinary Differential Equations **or** MAT 52019	3

ELECTIVES 1500 Level or higher (3 courses, 9 credits)

Choose 3 of the following:

Course #	Course Name	Credits
MATH 1521 or MAT 5651	Advanced Calculus II	3
MATH 1540 or MAT 5405	Functions of Complex Variable	3
MATH 2215 or MAT 5253	Modern Algebra	3
MATH 2462 or MAT 5002	Mathematical Statistics	3

CORRELATES (2 courses, 6+ credits)

Chosen from artificial intelligence, computer science, data analytics and visualization, or mathematics.

Specialization in Computational Science

Total Credits: **42+**

REQUIRED COURSES (7 courses, 24 credits)

Course #	Course Name	Credits
MATH 1412	Calculus I	4
MATH 1413	Calculus II	4
MATH 1510	Multivariable Calculus	4
MATH 2105	Linear Algebra	3
MATH 2461	Probability Theory	3
MATH 2462	Mathematical Statistics **or** MAT 5002	3
MATH 2651	Numerical Methods **or** MAT 5003	3

ELECTIVES (5 courses, 15+ credits)

Choose 5 of the following:

- COMP 1300
- COMP 1320
- COMP 1504
- COMP 2545
- COMP 3920
- COMP 3921

CORRELATES (1 course, 3+ credits)

Chosen from artificial intelligence, computer science, data analytics and visualization, or mathematics.

Specialization in Actuarial and Financial Mathematics

Total Credits: **42+**

REQUIRED COURSES (7 courses, 24 credits)

Course #	Course Name	Credits
MATH 1412	Calculus I	4
MATH 1413	Calculus II	4
MATH 1510	Multivariable Calculus	4
MATH 2105	Linear Algebra	3
MATH 2461	Probability Theory	3
MATH 2462	Mathematical Statistics **or** MAT 5002	3
MATH 2901	Mathematics of Finance **or** MATH 5640	3

ELECTIVES (5 courses, 15 credits)

Choose 5 of the following:

- ACC 1001
- ACC 1002
- ECON 1010
- ECON 1101
- ECON 1201
- ECON 1421
- ECON 1601
- FIN 1001
- IDS 2020
- IDS 2030
- IDS 2160
- IDS 2550
- IDS 3000

CORRELATES (1 course, 3+ credits)

Chosen from artificial intelligence, computer science, data analytics and visualization, or mathematics.