



UNIVERSITY | NEWARK

DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE

Applied Math Major Requirements

The Applied Mathematics Major is open to NCAS students, and to all non-UCN students as a second major. Students may not double major in both Mathematics and Applied Mathematics. A total of 59 credits is required for the Applied Mathematics Major.

Required Courses:

21:198:101 – Computers & Programming I (3 credits)

21:198:102 – Computers & Programming II (3 credits)

21:640:135 – Calculus I (4 credits)

21:640:136 – Calculus II (4 credits)

21:640:235 – Calculus III (4 credits)

21:640:237 – Discrete Structures (3 credits) OR 21:640:238 – Foundations of Modern Math (3 credits)*

21:640:314 – Elementary Differential Equations (3 credits)

21:640:327 – Probability & Statistics (3 credits)

21:640:350 – Linear Algebra (3 credits)

21:640:423 – Elementary Partial Differential Equations (3 credits)

21:640:473 – Numerical Analysis (3 credits)

21:640:475 – Applied Mathematics I (3 credits)

21:640:476 – Applied Mathematics II (3 credits)

21:750:213 – University Physics I (4 credits)**

21:750:214 – University Physics II (4 credits)**

Additional Required Math Electives:

9 credits at the 300-400 course level.

Recommended Electives:

21:640:311 – Advanced Calculus I (3 credits)

21:640:312 – Advanced Calculus II (3 credits)

*The Math Department recommends Foundations of Modern Math. 21:640:238 should be taken as soon as possible following the completion of 21:640:136 and before most 300 and 400 level courses.

**Students wishing to fulfill the lab science requirement using University Physics MUST TAKE 750:205 and 750:206 IN ADDITION to 750:213 and 750:214.

Prerequisite Flow Diagram for the Applied Mathematics Major

