School of Natural Sciences
UNDERGRADUATE ACADEMIC ADVISING

MATH Placement Exam Score of >23 or MATH 5

Students pursuing emphasis areas in Biology or Environmental Systems may complete the MATH 11 & 12 Series

MATH 11

MATH 12

MATH 41
MATH 12 or 22 required

MATH 32
MATH 12 or MATH 22 required

Students pursuing emphasis areas in Applied Math, Chemistry, MSE, Physics should complete the MATH 21 & 22 Series

MATH 21

MATH 22

MATH 24

DSC 8
(Fall-Only)

DSC 11
(Spring-Only)

DSC 104

DSC 100

DSC 111

Available starting 2026-2027

Machine Learning Elective

MATH 180
MATH 32 & MATH 24 or MATH 41 required

or

PHYS 127
MATH 32 & PHYS 9 required

Upper Division Computational & Statistical Electives

Select three courses from approved list; prerequisites vary

Emphasis Areas

Applied Math Emphasis

MATH 23**

Two upper division MATH courses from approved list; prerequisites vary

Env Sys Sci Emphasis

ESS 1 or BIO 12

Two upper division BIO or ESS courses from approved list; prerequisites vary

MSE Emphasis

CHEM 2 & 2L

PHYS 8 & 8L*

ENGR 45

One upper division MSE course from approved list; prerequisites vary

Biology Emphasis

BIO 11 & 11L

BIO 12 & 12L

Two upper division BIO or ESS courses from approved list; prerequisites vary

Chemistry Emphasis

CHEM 2 & 2L

CHEM 10 & 10L*

CHEM 8 & 8L

CHEM 160
Requires MATH 24 & 32

Physics Emphasis

PHYS 8 & 8L*

PHYS 9 & 9L**

PHYS 10***

PHYS 127

PHYS 181

*requires MATH 21
**requires MATH 22
***requires MATH 24