Bachelor of Science in Physics, Bachelor of Science in Mathematical Sciences (125 credits)

Freshman

Fall (16)
- CHM1213 Univ Chem 1 (Placement)
- PHY2413 Univ Physics 1
- CHM1221 U Chem 1 Lab
- COM1103 College Comp (Placement)
- PHY1213 Astronomy
- PHY1221 Astronomy Lab
- COM1001 Pathways to Research Careers

Spring (14)
- CHM221 U Phys 1 Lab
- PHY2421 Univ Physics 2
- MCS1414 Calculus 1 (Placement)
- LLT1213 World Masterpieces 1
- COM2103 Tech and Prof Communication
- SSC2413 Found Am Exp

Sophomore

Fall (16)
- CHM1221 U Phys 2 Lab
- PHY2423 Contemporary Physics Lab
- MCS2414 Calculus 2
- MCS2414 Calculus 3
- MCS1424 Calculus 2
- MCS3863 Linear Algebra
- MCS2111 (Sp) Mathematics Research Topics

Spring (17)
- PHY2431 Contemporary Physics Lab
- PHY3661 Analytical Mechanics*
- MCS2423 Differential Eqns
- PHY3414 Analytical Mechanics*
- MCS3863 Linear Algebra
- MCS3403 Probability & Stat
- MCS2111 (Sp) Mathematics Research Topics
- SSC/PSY_3 SSC/PSY elective

Junior/Senior Curriculum (example)***

Fall (14)
- PHY3653 Contemporary Physics
- PHY3574 Electricity and Magnetism (EEE3414)
- PHY4743 Optics, Lasers & Microscopy*
- PHY4763 Thermal Physics*
- MCS3253 Advanced Eng Math or Adv Calculus
- MCS3253 Advanced Eng Math or Adv Calculus
- MCS3733 Partial Differential Eq.
- EEE2114 Circuits 1 Lab

Spring (18)
- PHY1221 Astronomy Lab
- PHY2423 Contemporary Physics Lab
- PHY3661 Analytical Mechanics*
- MCS2414 Calculus 3
- MCS2423 Differential Eqns
- PHY3414 Analytical Mechanics*
- MCS3863 Linear Algebra
- MCS3403 Probability & Stat
- MCS2111 (Sp) Mathematics Research Topics
- SSC/PSY_3 SSC/PSY elective

Fall (15-16)
- PHY4743 Optics, Lasers & Microscopy*
- PHY4763 Thermal Physics*
- MCS3253 Advanced Eng Math or Adv Calculus
- MCS3253 Advanced Eng Math or Adv Calculus
- MCS3733 Partial Differential Eq.
- EEE2114 Circuits 1 Lab

Spring (14-15)
- PHY1221 Astronomy Lab
- PHY2423 Contemporary Physics Lab
- PHY3661 Analytical Mechanics*
- MCS2414 Calculus 3
- MCS2423 Differential Eqns
- PHY3414 Analytical Mechanics*
- MCS3863 Linear Algebra
- MCS3403 Probability & Stat
- MCS2111 (Sp) Mathematics Research Topics
- SSC/PSY_3 SSC/PSY elective

* Offered every two years and must be taken when offered in order to graduate in a timely fashion.

*** An individual plan of work leading to the degree will be established in consultation with the student’s advisor no later than the Fall of the junior year.

# Must be approved by a Natural Sciences advisor and department chair.

Revision - Nov 2020

Leftmost course is prerequisite

One course is co-requisite to the other

Strongly recommended path

(EEExxxx): Equivalent EEE course

(Placement): Requires passing score on placement exam

General Electives 4 credits

Specialized Electives
- PHYxxxx
- CHMxxxx
- PSCxxxx
- MCSxxxx
- E**xxxxx

Specialized Electives
- PHYxxxx
- CHMxxxx
- PSCxxxx
- MCSxxxx
- E**xxxxx

Revision - Nov 2020