Astrophysics Major Requirements (57)

Foundation Courses

- ☐ MATH 144 - Calculus for the Mathematical and Physical Sciences I
- ☐ MATH 146 - Calculus for the Mathematical and Physical Sciences II
- ☐ PHYS 144 - Newtonian Mechanics
- ☐ PHYS 181 - Relativity, Electricity and Magnetism

3 units from:
MATH 125 - Linear Algebra I
MATH 127 - Honors Linear Algebra I _____

Senior Courses

- ☐ ASTRO 320 - Stellar Astrophysics I
- ☐ ASTRO 322 - Galactic and Extragalactic Astrophysics
- ☐ MA PH 251 - Differential Equations for Physics (see Note 1)
- ☐ MA PH 351 - Mathematical Methods for Physics I (see Note 2)
- ☐ MATH 214 - Calculus III
- ☐ PHYS 244 - Classical Mechanics I
- ☐ PHYS 271 - Introduction to Modern Physics

3 units from:
MATH 225 - Linear Algebra II
MATH 227 - Honors Linear Algebra II _____

3 units from:
PHYS 234 - Introductory Computational Physics
PHYS 295 - Experimental Physics I _____

3 units from:
PHYS 310 - Thermodynamics and Kinetic Theory
PHYS 381 - Electromagnetic Theory I _____

6 units from:
MA PH 343 - Classical Mechanics II
PHYS 310 - Thermodynamics and Kinetic Theory _____
PHYS 311 - Statistical Physics
PHYS 362 - Optical Physics _____
PHYS 372 - Quantum Mechanics A
PHYS 381 - Electromagnetic Theory I

3 units from:
ASTRO 429 - Upper Atmosphere and Space Physics
ASTRO 465 - Stellar Astrophysics II _____

3 units from:
ASTRO at the 400-level
PHYS 420 - Computational Physics
PHYS 458 - Special and General Relativity
PHYS 467 - Fundamentals of Continuum Mechanics
PHYS 472 - Quantum Mechanics B
PHYS 481 - Electromagnetic Theory II _____

Notes:
1. This requirement may also be fulfilled by completing both MATH 334 and MATH 337.
2. This requirement may also be fulfilled by completing both MATH 315 and MATH 311.
3. Some courses appear in more than one requirement. Students may not use the same course to satisfy more than one requirement.
4. ASTRO 120 and ASTRO 122 are recommended as Science options.
5. Not all 200-, 300-, and 400-level Physics courses are offered every year so students should plan accordingly.
6. Students without a background in computer programming are strongly encouraged to take CMPUT 174 as one of their Science options in their first year.

- ☐ COMM
- ☐ COMM
- ☐ IND
- ☐ BO___
- ☐ BO___
- ☐ BSBS
- ☐ BSFS
- ☐ BSSS
- ☐ LAB

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