

## Sample schedule for BS in physics (astrophysics concentration)

This sample schedule is for the case that fall of year 1 is an even year. This distinction is necessary because some of the upper-level astronomy courses are offered every other year. You can find the course offerings for future semesters here: <http://physics.gmu.edu/~joe/course-schedule.pdf>

Number of credits in parentheses.

Courses designated “Elective” are entirely at the student's discretion.

At least 45 credits must be upper-level (300 or above). This sample schedule satisfies this requirement.

### Fall of Year 1 (15)

|            |     |                          |
|------------|-----|--------------------------|
| MATH 113   | (4) | Calculus I               |
| ENGH 101   | (3) | Composition              |
| Mason Core | (3) |                          |
| Mason Core | (3) |                          |
| PHYS 122   | (1) | Inside Relativity        |
| PHYS 123   | (1) | Inside the Quantum World |

### Spring of Year 1 (15)

|            |     |   |
|------------|-----|---|
| ASTR 124   | (3) | Introduction to Observational Astronomy |
| MATH 114   | (4) | Calculus II                             |
| PHYS 160   | (3) | Physics I                               |
| PHYS 161   | (1) | Physics I lab                           |
| Mason Core | (3) |   |
| Mason Core | (3) |   |

### Fall of Year 2 (16)

|            |     |   |
|------------|-----|---|
| MATH 213   | (3) | Calculus III  |
| PHYS 260   | (3) | Physics II  |
| PHYS 261   | (1) | Physics II lab  |
| PHYS 251   | (3) | Intro to Computer Techniques in Physics (satisfies Mason Core IT) |
| Mason Core | (3) |   |
| Mason Core | (3) |   |

### Spring of Year 2 (15)

|          |     |                              |
|----------|-----|------------------------------|
| MATH 214 | (3) | Differential Equations       |
| MATH 203 | (3) | Linear Algebra               |
| PHYS 262 | (3) | Physics III                  |
| ASTR 210 | (3) | Introduction to Astrophysics |
| Elective | (3) |                              |

**Fall of Year 3 (15)**

|          |     |                               |
|----------|-----|-------------------------------|
| ASTR 328 | (3) | Stars                         |
| PHYS 301 | (3) | Analytical Methods of Physics |
| PHYS 303 | (3) | Classical Mechanics           |
| PHYS 305 | (3) | Electromagnetic Theory        |
| PHYS 311 | (3) | Instrumentation               |

**Spring of Year 3 (15)**

|          |     |  |
|----------|-----|--|
| ASTR 404 | (3) | Galaxies and Cosmology                               |
| PHYS 306 | (3) | Wave Motion and Electromagnetic Radiation            |
| PHYS 312 | (3) | Waves and Optics                                     |
| PHYS 402 | (3) | Introduction to Quantum Mechanics and Atomic Physics |
| ENGH 302 | (3) | Advanced Composition                                 |

**Fall of Year 4 (16)**

|          |     |                                    |
|----------|-----|------------------------------------|
| ASTR 401 | (3) | Computer Simulation in Astronomy   |
| ASTR 402 | (3) | Methods of Observational Astronomy |
| ASTR 408 | (3) | Senior Research                    |
| Elective | (3) |                                    |
| Elective | (3) |                                    |

**Spring of Year 4 (15)**

|                 |     |                                       |
|-----------------|-----|---------------------------------------|
| ASTR 420 or 480 | (3) | Exoplanets or The Interstellar Medium |
| PHYS 307        | (3) | Thermal Physics                       |
| PHYS 428        | (3) | Relativity                            |
| Elective        | (3) |                                       |
| Elective        | (3) |                                       |