IMPORTANT NOTE TO PROSPECTIVE MAJORS: Please contact the Department Undergraduate Coordinator, Dr. Joe Weingartner, asap (at Orientation, or at least by the start of first semester). He wants to get to know the majors when they start, and he has important additional information about astronomy activities and opportunities.

CONTACT INFORMATION

- Honors College Advisor: Tahmina Rahman (trahman5@gmu.edu)
- Department Chair: Paul So
- Department Undergraduate Coordinator: Joe Weingartner (jweinga1@gmu.edu)

Once students begin attending Mason and declare a major they should see both their Honors College and their major department advisor for advising. Students must confirm their major requirements with their department advisor, with the University catalog (http://catalog.gmu.edu/colleges-schools/science/physics-astronomy/astronomy-bs/#requirementstext), and with Patriot Web’s Degree Evaluation.

HONORS REQUIREMENTS (see advising section of Honors College website for further details)

- All Honors College students must complete all courses in the Honors curriculum. Any substitutions for these courses should be approved by your Honors College advisor.

- While Honors sections are not required to complete the Honors curriculum, students are highly encouraged to take the Honors section to obtain a more in-depth understanding of the course.

ADVISING SHEET

<table>
<thead>
<tr>
<th>1st Year – 1st Semester (Fall)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>o HNRS T10: Principles of Research &amp; Inquiry</td>
<td>4</td>
</tr>
<tr>
<td>o HNRS 122: Reading the Arts</td>
<td>3</td>
</tr>
<tr>
<td>♦ MATH 113: Analytic Geometry and Calculus I (a placement exam is required)</td>
<td>4</td>
</tr>
<tr>
<td>♦ UNIV 100 (recommended, particularly Honors College section)</td>
<td>1</td>
</tr>
<tr>
<td>♦ Elective</td>
<td>3</td>
</tr>
<tr>
<td>Semester Total</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1st Year – 2nd Semester (Spring)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>o HNRS 131: Contemporary Social Issues</td>
<td>3</td>
</tr>
<tr>
<td>♦ MATH 114 (prerequisite: grade of C or better in MATH 113) or MATH 116: Analytic Geometry and Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>♦ PHYS 160/160H: University Physics I and PHYS 161: University Physics I Lab (Corequisite: MATH 114 or 116)</td>
<td>4</td>
</tr>
<tr>
<td>♦ ASTR 124: Introduction to Observational Astronomy</td>
<td>1</td>
</tr>
<tr>
<td>o HNRS 130: Identity, Community, &amp; Difference</td>
<td>3</td>
</tr>
<tr>
<td>Semester Total</td>
<td>15</td>
</tr>
</tbody>
</table>

<p>| 2nd Year – 1st Semester (Fall) | |</p>
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HNRS 240: Reading the Past</td>
<td>3</td>
</tr>
<tr>
<td>MATH 213 or MATH 215²: Analytic Geometry and Calculus III (Prerequisite: Grade of C or better in MATH 114 or 116)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 260/260H²: University Physics II and PHYS 261: University Physics II Lab (Corequisite: MATH 213 or MATH 215)</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 251: Introduction to Computer Techniques in Physics</td>
<td>3</td>
</tr>
<tr>
<td>HNRS 260 (Society &amp; Community Engagement) Or HNRS 261 (Community Connection Practicum)</td>
<td>3</td>
</tr>
</tbody>
</table>

| Semester Total | 16 |

| 2nd Year – 2nd Semester (Spring)                                      |        |
| HNRS 360 (Multi-Disciplinary Topics) Or HNRS 361 (Multi-Disciplinary Practicum) | 3       |
| PHYS 308: Modern Physics with Applications                           | 3       |
| MATH 214: Elementary Differential Equations or MATH 216²: Theory of Differential Equations (Prerequisite: Grade of C or better in MATH 213 or 215. Prerequisite for MATH 216: MATH 203 or permission of instructor) | 3       |
| ASTR 210: Introduction to Astrophysics                              | 3       |
| Elective                                                            | 3       |

| Semester Total | 16 |

| 3rd Year – 1st Semester (Fall)                                       |        |
| ASTR 401: Computer Simulation in Astronomy                          | 3       |
| PHYS 301: Analytical Methods of Physics                             | 3       |
| PHYS 303: Classical Mechanics                                       | 3       |
| PHYS 305: Electromagnetic Theory                                    | 3       |
| Elective                                                            | 3       |

| Semester Total | 15 |

| 3rd Year – 2nd Semester (Spring)                                     |        |
| “Additional Astronomy Course”⁴                                      | 3       |
| “Additional Astronomy Course”⁴: ASTR 404: Galaxies and Cosmology (odd year) or ASTR 480 (even year) | 3       |
| Astronomy and Physics Courses³ [PHYS 306: Wave Motion and Electromagnetic Radiation] | 3       |
| Astronomy and Physics Courses³ [PHYS 402: Introduction to Quantum Mechanics and Atomic Physics] | 3       |
| Electives                                                          | 3       |

| Semester Total | 15 |

| 4th Year – 1st Semester (Fall)                                       |        |
| ASTR 402: Methods of Observational Astronomy or ASTR 328 if not taken earlier | 4       |
| “Additional Astronomy Course”⁴: ASTR 403: Planetary Sciences         | 3       |
| Astronomy and Physics Courses³ [ASTR 408: Senior Research]           | 3       |
| Astronomy and Physics Courses³ [ASTR 401: Computer Simulation in Astronomy] | 3       |
| PHYS 416: Special Topics in Undergraduate Physics                    | 1       |

| Semester Total | 15 |
4th Year – 2nd Semester (Spring)

♦ Astronomy and Physics Courses³ [ASTR 420: Exoplanets or ASTR 480: The Interstellar Medium, if not taken as “Additional Astronomy Course”] 3

♦ Astronomy and Physics Courses³ [PHYS 428: Relativity] 3

♦ Electives or see Department 9

Semester Total 15

NOTES

1. Students with credit for MATH 113 (AP, IB or dual enrollment credit) should take PHYS 160/161 and MATH 114 or MATH 116 in their first semester. See your Astronomy advisor if you have any AP or IB Math or Physics credit.

2. While Honors sections are not required to complete the Honors curriculum, students are highly encouraged to take the Honors sections to obtain a more in-depth understanding of the course.

3. The major requires 15 credits of additional Astronomy or Physics Courses. Courses in brackets are suggestions for these courses. See your department advisor.

4. “Additional Astronomy Courses:” select two from the following courses: ASTR 403, ASTR 404, ASTR 420, or ASTR 480. The course not selected as an “Additional Astronomy Course” may be taken as an Astronomy and Physics Course.