

ASTRONOMY BS – STEM TRACK

Fall 2009 – Spring 2010

CONTACT INFORMATION

- Honors College Advisor: Kathleen Alligood (alligood@gmu.edu)
- Department Chair: Robert Ehrlich (rehlich@gmu.edu)
- Department Undergraduate Coordinator: Joe Weingartner (jweingal@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.

REQUIRED HOURS

- Hours Required in Major: 59
- Hours Required in Honors: see honors advisor
- This major requires a total of 120 credits to graduate, 45 of which must be at the 300-level and above.

ADVISING SHEET

- Honors College Requirement
- ◆ Department Requirement
- ▲ College Requirement

1 st Year – 1 st Semester (Fall)	Credits
○ HNRS 110: Introduction to Research (grade of C or better required)	4
◆ MATH 113: Analytic Geometry and Calculus I (a placement exam is required)	4
◆ ASTR 103: Astronomy	3
◆ PHYS 122/123: Relativity/ Inside the Quantum World	2
Semester Total	13 ²
1 st Year – 2 nd Semester (Spring)	
○ HNRS 122: Reading the Arts	3
◆ MATH 114 (prerequisite: grade of C or better in MATH 113) or MATH 116: Analytic Geometry and Calculus II	4
◆ PHYS 160/161 or PHYS160H/161: University Physics I ¹ (Corequisite MATH 114 or 116)	4
◆ Elective	3
Semester Total	14
2 nd Year – 1 st Semester (Fall)	
○ HNRS 131: Contemporary Society in Multiple Perspectives	3
◆ MATH 213 or MATH 215 ¹ : Analytic Geometry and Calculus III	3
◆ PHYS 260/261 or PHYS 260H/261: University Physics II ¹ (Corequisite: MATH 213 or 215)	4
◆ ASTR 302: Foundations of Cosmology	3
◆ Electives	3
Semester Total	16
2 nd Year – 2 nd Semester (Spring)	
◆ MATH 214: Elementary Differential Equations	3
◆ PHYS 262/263 or PHYS 262H/263: University Physics III ¹	3

◆ ASTR 301: Astrobiology	3
◆ Electives	6
Semester Total	15
3rd Year – 1st Semester (Fall)	
○ HNRS 240: Reading the Past	3
◆ MATH 313: Introduction to Applied Mathematics	3
◆ PHYS 305: Electromagnetic Theory	3
◆ ASTR 328: Introduction to Astrophysics	3
◆ Elective	3
Semester Total	15
3rd Year – 2nd Semester (Spring)	
○ HNRS 353: Technology in the Contemporary World (grade of C or better required)	3
◆ PHYS 307: Thermal Physics	3
◆ PHYS 308: Modern Physics with Applications	3
◆ Electives	6
Semester Total	15
4th Year – 1st Semester (Fall)	
◆ ASTR 401: Computer Simulation in Astronomy	3
◆ ASTR 403: Planetary Sciences	3
◆ ASTR 408: Senior Research	3
◆ ASTR 490: Astronomy Capstone	3
◆ Elective 300 level or above	3
Semester Total	15
4th Year – 2nd Semester (Spring)	
◆ ASTR 404: Galactic Astronomy	3
◆ ASTR 408: Senior Research	3
◆ ASTR 428: Relativity and Cosmology	3
◆ Elective or see Department	6
Semester Total	15
Total Hours	118 ²

NOTES

1. To complete the STEM Track, students must take two (2) of the following courses:

- BIOL 213H
- BIOL 303H
- ECON 103H
- CHEM 211H
- CHEM 212H
- CS 211H
- MATH 116
- MATH 215
- PHYS 160H
- PHYS 260H

- PHYS 262H
2. Two additional credit hours are required to bring the total number of hours up to the 120 required for the BS degree.