

<b>Student ID:</b> _____	<b>Catalog: 2017-2018 Catalog</b>
<b>Student Name:</b> _____	<b>Program: Astrobiology, B.S.</b>
<b>Adviser Name:</b> _____	<b>Minimum Credits Required:</b> _____

## Astrobiology, B.S.

<b>Major Code:</b> 7191	<b>Degree Awarded:</b> Bachelor of Science
<b>Delivery Mode(s):</b> Classroom	<b>Age Restriction:</b> No
<b>Admission Status:</b> Undergraduate	<b>Location(s):</b> Main Campus - Melbourne

The undergraduate space sciences program for the astrobiology major is designed for students interested in pursuing a broad range of space-related careers, either on completion of the bachelor's degree program or after completing graduate studies. Emphasis in the curriculum for the astrobiology major is on achieving a broad yet rigorous education in the basic physical, mathematical and engineering sciences as a foundation for successful entry into any of the many subfields of modern space science activity.

This program is interdisciplinary and designed to meet the needs of students intending to pursue graduate education in astrobiology, astrophysics, planetary sciences or biology.

### Degree Requirements

Candidates for the Bachelor of Science in Astrobiology must complete the course requirements listed in the following sample curriculum. Because basic physics and introductory space sciences courses form a critically important foundation for all advanced coursework in the space sciences programs, the minimum grade for satisfying the prerequisite requirements for a space sciences major is a grade of C for each of the following courses:

- PHY 1001 Physics 1
- PHY 2002 Physics 2
- PHY 2003 Modern Physics
- PHY 2091 Physics Laboratory 1
- PHY 2092 Physics Laboratory 2
- SPS 1020 Introduction to Space Sciences

### Freshman Year

#### Fall (16 credit hours)

Course Name	Term Taken	Grade	Gen Ed
CHM 1101 General Chemistry 1			
COM 1101 Composition and Rhetoric			
FYE 1000 University Experience			
MTH 1001 Calculus 1 * or MTH 1010 Mathematical Analysis 1			
PHY 1050 Physics and Space Science Seminar			
SPS 1020 Introduction to Space Sciences *			

#### Spring (16 credit hours)

Course Name	Term Taken	Grade	Gen Ed
CHM 1102 General Chemistry 2			
COM 1102 Writing About Literature			
MTH 1002 Calculus 2 or MTH 1020 Mathematical Analysis 2			
PHY 1001 Physics 1			
PHY 2091 Physics Laboratory 1			

### Sophomore Year

#### Fall (16 credit hours)

Course Name	Term Taken	Grade	Gen Ed
BIO 1010 Biological Discovery 1			
HUM 2051 Civilization 1: Ancient Through Medieval			
MTH 2001 Calculus 3			
PHY 2002 Physics 2			
PHY 2092 Physics Laboratory 2			

**Spring (17 credit hours)**

Course Name	Term Taken	Grade	Gen Ed
BIO 1020 Biological Discovery 2			
COM 2223 Scientific and Technical Communication			
MTH 2201 Differential Equations/Linear Algebra			
PHY 2003 Modern Physics			
Restricted Elective (CSE 15xx) Credit Hours: 3			

**Junior Year****Fall (17 credit hours)**

Course Name	Term Taken	Grade	Gen Ed
CHM 2001 Organic Chemistry 1			
PHY 3011 Physical Mechanics			
PHY 3060 Thermodynamics, Kinetic Theory and Statistical Mechanics **			
Humanities Core Course Credit Hours: 3 Humanities Elective Credit Hours: 3			

**Spring (17 credit hours)**

Course Name	Term Taken	Grade	Gen Ed
BIO 2010 Microbiology			
CHM 2002 Organic Chemistry 2			
PHY 3035 Quantum Mechanics **			
PHY 3440 Electromagnetic Theory			
SPS 4039 Astrobiology			

**Senior Year****Fall (15 credit hours)**

Course Name	Term Taken	Grade	Gen Ed
BIO 2110 General Genetics			
BIO 4010 Biochemistry 1			
SPS 4010 Astrophysics 1: Introduction to Stellar Structure and Evolution			
SPS 4200 Senior Seminar 1 (Q)			
Social Science Elective Credit Hours: 3			

**Spring (14 credit hours)**

Course Name	Term Taken	Grade	Gen Ed
BIO 3701 Evolution or SPS 4030 Physics of the Atmosphere			
BIO 4101 Molecular Biology			
BIO 4110 Biochemistry 2			
SPS 4210 Senior Seminar 2 (Q)			
Restricted Elective (PHY/SPS 3000-level or higher) Credit Hours: 3			

**Total Credits Required: 128**

*\*Students should register for SPS 1020 Introduction to Space Sciences. If a student places into MTH 1002 Calculus 2 or MTH 1020 Mathematical Analysis 2, the student is encouraged to take PHY 1001 Physics 1 in the first semester and SPS 1020 Introduction to Space Sciences later in the program.*

*\*\*Students may elect to substitute the eight credit hours from CHM 3001 Physical Chemistry 1, CHM 3002 Physical Chemistry 2 and CHM 2011 Organic Chemistry Laboratory 1 for PHY 3035 Quantum Mechanics and PHY 3060 Thermodynamics, Kinetic Theory and Statistical Mechanics.*

**Humanities Core Courses**

Not all humanities core courses are offered online or every term; check the current schedule of classes for humanities core options.

Course Name	Term Taken	Grade	Gen Ed
HUM 2052 Civilization 2: Renaissance Through Modern			
HUM 2142 World Art History 2: Early Modern to Post-Colonial			
HUM 2212 British and American Literature 1			
HUM 2213 British and American Literature 2			
HUM 2331 American History: Pre-Columbian to Civil War Era			
HUM 2332 American History: From Reconstruction to the Present			
HUM 3333 American Military History			
<b>Notes:</b>			