Bachelor in Astronomy - Minor in Faith-Based Space Education and Public Outreach
HBI University
Course Duration: 3 years
Credit Hours: 135 (including minor)



Program Description

The Bachelor in Astronomy at HBI University provides students with a deep understanding of the universe, including stellar physics, cosmology, planetary science, and astrophysical research. This program prepares students for careers in astronomical research, space science communication, and observatory management.

The Minor in Faith-Based Space Education and Public Outreach enhances this degree by integrating theological perspectives into astronomy education, emphasizing how faith and science can work together in the exploration of the cosmos. Students will explore how space science can be used to inspire communities and promote faith-based public outreach initiatives.

Admissions Requirements

- High school diploma or equivalent
- Minimum GPA of 2.5
- Personal statement outlining career goals and interest in astronomy
- Two letters of recommendation
- Resume (if applicable)
- SAT/ACT scores (if applicable)

General Education Courses (30 Credit Hours)

Course Code	Course Name	Credit Hours
GEN 101	English Composition I	3
GEN 102	English Composition II	3
GEN 103	College Algebra	3
GEN 104	Introduction to Philosophy	3
GEN 105	Introduction to World Religions	3
GEN 106	Public Speaking and Communication	3
GEN 107	Ethics and Critical Thinking	3
GEN 108	Research Methods	3
GEN 109	Leadership and Team Development	3
GEN 110	Cross-Cultural Communication	3

Core Astronomy Courses (45 Credit Hours)

Course Code	Course Name	Credit Hours
AST 201	Introduction to Astronomy and Astrophysics	3
AST 202	Planetary Science and Solar System Exploration	3
AST 203	Stellar Evolution and Galactic Astronomy	3
AST 204	Cosmology and the Structure of the Universe	3
AST 205	Observational Astronomy and Telescopic Techniques	3
AST 206	Astrobiology and the Search for Extraterrestrial Life	3
AST 207	Radio Astronomy and Space Observatories	3
AST 208	Computational Methods in Astrophysics	3
AST 209	Gravitational Waves and Black Hole Physics	3
AST 210	Quantum Mechanics and Relativity in Astronomy	3
AST 211	Space Weather and Solar Activity	3
AST 212	Artificial Intelligence in Space Science	3
AST 213	History of Astronomy and Cosmological Theories	3

AST 214	Aerospace Engineering and Spacecraft Navigation	3
AST 215	Capstone: Space Research and Observational Study	3

Elective Courses (15 Credit Hours)

Course Code	Course Name	Credit Hours
ELEC 301	The Role of Astronomy in Ancient and Biblical Texts	3
ELEC 302	Space Exploration and Ethical Stewardship	3
ELEC 303	Astronomy in Religious and Cultural Contexts	3
ELEC 304	Physics of Time and Space: A Theological Perspective	3
ELEC 305	Faith-Based Astronomy Education and Outreach Methods	3

Minor in Faith-Based Space Education and Public Outreach (15 Credit Hours)

Course Code	Course Name	Credit Hours
FSE 401	Faith and the Exploration of the Cosmos	3
FSE 402	Astronomy and Theology: Historical Perspectives	3
FSE 403	Space Science for Faith-Based Education	3
FSE 404	Public Outreach and Space Evangelism	3
FSE 405	Ethical and Theological Implications of Space Exploration	3

Capstone Project (15 Credit Hours)

The capstone project in Astronomy allows students to apply astrophysical research, public outreach, and faith-based education to real-world challenges. Students will:

- Conduct an observational study using telescopes and astronomical software.
- Develop a faith-based astronomy education curriculum for community outreach.
- Create an educational campaign promoting the harmony between faith and space science.
- Present their research through a detailed report and public presentation.

Program Outcomes

Graduates of this program will:

- Master astrophysics, space science communication, and observational techniques.
- Integrate faith-based perspectives into space education and science outreach.
- Utilize astronomical research to inspire public engagement in faith and science.
- Develop educational resources that promote space science within faith communities.
- Lead science communication initiatives in observatories, universities, and nonprofit organizations.

Career Outcomes and Potential Pay Scale

Career Path	**Average Salary (Annual)**
Astronomer	$75,000 - $150,000
Faith-Based Science Educator	$50,000 - $110,000
Space Science Communicator	$60,000 - $130,000
Observatory Director	$65,000 - $140,000
Aerospace and Astrobiology Researcher	$80,000 - $160,000