ABOUT THE MAJOR

Physics is a fundamental physical science. Its essentials form the foundation of all sciences as well as engineering and technology. The world of physics ranges from the smallest particles of subatomic matter to the galaxies. Physicists conduct research into the basic laws of nature or use existing knowledge about the physical world to develop applications and to design new products. A degree in physics prepares the student for a career in physics or related job industry, a governmental lab, teaching, as well as for further graduate study.

The B.S. in Physics with a Concentration in Astronomy is a modification of Plan A, the general physics major track, to emphasize observational astronomy and stellar and galactic astrophysics. This concentration is designed for students who plan to pursue graduate studies and/or careers in astronomy and astrophysics, as well as for students who desire an increased emphasis on image processing techniques and radiative processes and energy transport.

ABOUT THIS MAP

This program map is intended ONLY as a guide for students to plan their course of study. It does NOT replace any information in the Undergraduate Catalog, which is the official guide for completing degree requirements. Use this map to help plan and guide your experience at UWG, including academic, co-curricular, and discovery opportunities. Everyone’s experience is different and activities in this map are suggestions. Always consult with your advisors whenever possible for new opportunities and updates.

WHERE CAN YOU GO WITH THIS DEGREE?

- Aerospace Engineer
- Astronomer
- Data Scientist
- Geophysicist
- Lab Manager
- Medical Physicist
- Optical Engineer
- Physics Teacher
- Professor
- Research Scientist

ADD A CERTIFICATE

- Atmospheric Science

Visit westga.edu/program-maps for the latest version of this major map.

HAVE A QUESTION?
CHECK IN WITH YOUR ADVISOR!

VISIT WOLFWATCH FOR MORE INFORMATION.
## Term 1: Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1101 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1113 Precalculus</td>
<td>4</td>
</tr>
<tr>
<td>XIDS 2001 The Physical Universe</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1211/1211L Principles of Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>ASTR 2313 Astronomy</td>
<td>3</td>
</tr>
</tbody>
</table>

### Milestones:
- Complete English Composition I with C or better
- Complete Precalculus

### Crush Your Coursework
- Enroll in IDS 2001: Physical Universe and Core courses.
- Complete math courses through Calculus I.
- Take Principles of Physics I (or ASTR 2313) in your second semester.
- Attend physics workshops.
- Meet with your Physics mentor.

### Find Your Place
- Meet Physics faculty and learn about their research and scholarship opportunities.
- Join the Physics Engineering club.
- Connect with junior/senior Physics students and ambassadors.

### Broaden Your Perspectives
- Explore diversity, equity, and inclusion resources and opportunities across campus.
- Check out the education abroad office.

### Connect Off-Campus
- Visit Wolves Vote to learn about the voting process and registration.
- Consider volunteering for a campaign or organization in your community.

### Take Care of Yourself
- Visit the IMR Wellness Hub to find all the resources available to you!
- Visit Health Services.
- Get fit! Visit URec to see all your options.
- Visit the Center for Economic Education and Financial Literacy.

### Pave Your Path
- Complete a self-assessment to see what careers and majors are right for you.
- Visit Office of Career and Graduate School Connections.
- Create your profile on Handshake.
- Consider applying for an on-campus job.

### Credit Hours
- 15 Fall Credit Hours + 17 Spring Credit Hours = 32 Credit Hours

## Term 2: Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1102 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1634 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1212/1212L Principles of Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>LANGUAGE COURSE foreign language</td>
<td>3</td>
</tr>
</tbody>
</table>

### Milestones:
- Complete English Composition II with C or better
- Complete Calculus I

### Crush Your Coursework
- Visit Wolves Vote to learn about the voting process and registration.
- Consider volunteering for a campaign or organization in your community.

### Find Your Place
- Explore diversity, equity, and inclusion resources and opportunities across campus.
- Check out the education abroad office.

### Broaden Your Perspectives
- Complete Principles of Physics II
- Take Modern, Mathematical, Mechanics, E&M, and Thermal.
- Establish your pathway/concentration.
- Take care and electives to balance upper-level coursework.

### Connect Off-Campus
- Take a fitness class, climb the rock wall, or join an intramural team.
- Consider whether counseling is right for you: take a mental health screening.
- Consider a study abroad program. Check out students’ stories of their experiences.

### Take Care of Yourself
- Draft your resume and attend a resume blitz.
- Learn about and network on social media and update your Handshake profile.
- Draft your personal statement.
- Visit the graduate school to find out about graduate programs and admission requirements.

### Pave Your Path
- 15 Fall Credit Hours + 14 Spring Credit Hours = 29 Credit Hours
TERM 1: FALL

PHYS 3503
Modern Physics
3 CREDIT HOURS

PHYS 3113
Mechanics
3 CREDIT HOURS

ASTR 3133
Observational Astronomy
3 CREDIT HOURS

PHYS/ASTR OR MATH ELECTIVE
B1, C1, OR E
3 CREDIT HOURS

TERM 2: SPRING

PHYS 3213
Thermodynamics
3 CREDIT HOURS

PHYS 3133
Electricity and Magnetism
3 CREDIT HOURS

ASTR 4103/4433 OR PHYS 4323/4333
3 CREDIT HOURS

B1, C1, OR E
ELECTIVE
3 CREDIT HOURS

TERM 1: FALL

MATH ELECTIVE
3 CREDIT HOURS

PHYS/ASTR ELECTIVE
3 CREDIT HOURS

ELECTIVE(S)

TERM 2: SPRING

B1, C1, OR E
3 CREDIT HOURS

ASTR 4103/4433 OR PHYS 4323/4333
3 CREDIT HOURS

MATH OR FREE ELECTIVE
3 CREDIT HOURS

PHYS/ASTR ELECTIVE
3 CREDIT HOURS

ELECTIVE(S)

15 FALL CREDIT HOURS + 15 SPRING CREDIT HOURS = 30 CREDIT HOURS

CRUSH YOUR COURSEWORK

• Complete Principles of Physics.
• Take Modern, Mathematical, Mechanics, E&M and Therm.
• Establish your pathway/concentration.
• Take core and electives to balance upper-level coursework.

FIND YOUR PLACE

• In a student organization? Suggest you all complete an implicit bias workshop.
• Consider a study abroad program. Check out students’ stories of their experiences.

BROADEN YOUR PERSPECTIVES

• Complete an internship in your field.
• Consider a summer or part-time job.
• Ask your department about networking opportunities with alumni.

CONNECT OFF-CAMPUS

• Take a fitness class, climb the rock wall, or join an intramural team.
• Consider whether counseling is right for you: take a mental health screening.

TAKE CARE OF YOURSELF

• Draft your resume and attend a resume building class.
• Learn about how to network on social media and update your Handshake profile.

PAVE YOUR PATH

• Request references from professors and supervisors.
• Draft your resume cover letter and personal statement and review it with career services.
• Attend business fairs and career fairs at UWG and across the state.
• Attend an interview workshop.
• Apply for graduate programs.

13 FALL CREDIT HOURS + 16 SPRING CREDIT HOURS = 29 CREDIT HOURS

CRUSH YOUR COURSEWORK

• Finish your degree requirements.
• Complete your research/internships.
• Present a talk or a conference.
• Write a scientific paper.
• Finish strong.

FIND YOUR PLACE

• Become a Physics Ambassador.
• Expand your professional network.
• Apply for internships in local industries or graduate programs.
• Attend career fairs. Send your resume to one of our alumni.

BROADEN YOUR PERSPECTIVES

• Assess your cultural competency.
• Consider working abroad and research visa regulations.
• Explore practices of creating more inclusive careers.

CONNECT OFF-CAMPUS

• Ask for advice from professionals in your field of interest.
• Explore career shadowing opportunities.

TAKE CARE OF YOURSELF

• Explore a farmer’s market for fresh produce.
• Develop a post-graduation exercise plan.
• Explore your loan repayment options and complete your exit counseling.

PAVE YOUR PATH

• Request references from professors and supervisors.
• Draft your resume cover letter and personal statement and review it with career services.
• Attend business fairs and career fairs at UWG and across the state.
• Attend an interview workshop.
• Apply for graduate programs.