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.

Plan A is designed for students who desire to pursue graduate study in physics or career options for which physics is an excellent gateway.

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

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

VISIT WOLFWATCH FOR MORE INFORMATION.

HAVE A QUESTION? CHECK IN WITH YOUR ADVISOR!
### YEAR 1

#### TERM 1: FALL

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1: ENGL 1101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>A2: MATH 1111</td>
<td>Precalculus</td>
<td>3</td>
</tr>
<tr>
<td>B2: XIDS 2001</td>
<td>The Physical Universe</td>
<td>1</td>
</tr>
<tr>
<td>XIDS 2002</td>
<td>First-Year Seminar</td>
<td>2</td>
</tr>
<tr>
<td>B1, C, OR E</td>
<td></td>
<td>3</td>
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</tbody>
</table>

**Milestones:**
- Complete ENGL 1101 with C or better
- Complete Area A2 Math

#### TERM 2: SPRING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1: ENGL 1102</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>D2: MATH 1113</td>
<td>Precalculus</td>
<td>4</td>
</tr>
<tr>
<td>D1: CHEM 1211/1211L</td>
<td>Principles of Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>B1, C, OR E</td>
<td></td>
<td>3</td>
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</tbody>
</table>

**Milestones:**
- Complete ENGL 1102 with C or better
- Complete Calculus I

#### TERM 3: SUMMER

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>D2: MATH 1634</td>
<td>Calculus I</td>
<td>4</td>
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</table>

**Milestone:**
- Complete Calculus I over the summer in order to start Phys Sequence in the fall.

**Credit Hours:**
- 12 FALL CREDIT HOURS + 14 SPRING CREDIT HOURS + 4 SUMMER CREDIT HOURS = 30 CREDIT HOURS

### YEAR 2

#### TERM 1: FALL

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>F: PHYS 2211/2211L</td>
<td>Principles of Physics I</td>
<td>4</td>
</tr>
<tr>
<td>F: MATH 2644</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>D1: CHEM 1212/1212L</td>
<td>Principles of Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>B1, C, OR E</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

#### TERM 2: SPRING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>F: PHYS 2212/2212L</td>
<td>Principles of Physics II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 3303</td>
<td>Ordinary Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>B1, C, OR E</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Milestones:**
- Complete Principles of Physics, Calculus II, Principles of Chemistry II
- Take Modern, Mathematical, Mechanics, E&M and Thermodynamics
- Complete Math courses through Calculus II
- Take Principles of Physics I (or ASTR 2313) in your second semester
- Attend physics workshops
- Meet with your Physics mentor

**Credit Hours:**
- 15 FALL CREDIT HOURS + 13 SPRING CREDIT HOURS = 28 CREDIT HOURS
**TERM 1: FALL**

**PHYS 3503**
Modern Physics  
3 CREDIT HOURS

**PHYS 3113**
Mechanics  
3 CREDIT HOURS

**PHYS 4513 OR 4523**
Mathematical Physics or Computational Physics  
3 CREDIT HOURS

**F: MATH 2654**
Calculus III  
4 CREDIT HOURS

B1, C, OR E

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**TERM 2: SPRING**

**PHYS 3213**
Thermodynamics  
3 CREDIT HOURS

**PHYS 3313**
Electricity and Magnetism  
3 CREDIT HOURS

**MATH OR FL ELECTIVE**
3 CREDIT HOURS

**PHYS ELECTIVE**
3 CREDIT HOURS

**ELECTIVE**
3 CREDIT HOURS

16 FALL CREDIT HOURS + 15 SPRING CREDIT HOURS = 31 CREDIT HOURS

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**TERM 1: FALL**

**PHYS 4513 OR 4523**
Mathematical Physics or Computational Physics  
3 CREDIT HOURS

**PHYS 3511**
Experimental Physics I  
1 CREDIT HOUR

**MATH OR FL ELECTIVE**
3 CREDIT HOURS

**PHYS ELECTIVE**
3 CREDIT HOURS

**PHYS ELECTIVE**
3 CREDIT HOURS

B1, C, OR E

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**TERM 2: SPRING**

**PHYS 3521**
Experimental Physics II  
1 CREDIT HOUR

**PHYS 4984**
Physics Seminar  
1 CREDIT HOUR

**ELECTIVE**
4 CREDIT HOURS

**PHYS ELECTIVE**
3 CREDIT HOURS

**PHYS ELECTIVE**
3 CREDIT HOURS

**ELECTIVE**
3 CREDIT HOURS

B1, C, OR E

16 FALL CREDIT HOURS + 15 SPRING CREDIT HOURS = 31 CREDIT HOURS

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**YEAR 4**

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**TERM 1: FALL**

**TERM 2: SPRING**

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