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

ADD A CERTIFICATE

- Atmospheric Science
- Forensic Sciences
- Health and Society
- Microbiology

Visit westga.edu/program-maps for the latest version of this major map.
TERM 1: FALL
A1: ENGL 1101
English Composition I
3 CREDIT HOURS
A2: MATH 1113
Precalculus
4 CREDIT HOURS
B2: XIDS 2001
The Physical Universe
1 CREDIT HOUR
XIDS 2002
First-Year Seminar
2 CREDIT HOURS
D1: CHEM 1211/1211L
Principles of Chemistry I
4 CREDIT HOURS

MILESTONES:
• COMPLETE ENGL 1101 WITH C OR BETTER
• COMPLETE MATH 1113

TERM 2: SPRING
A1: ENGL 1102
English Composition II
3 CREDIT HOURS
D2: MATH 1634
Calculus I
4 CREDIT HOURS
D1: CHEM 1212/1212L
Principles of Chemistry II
4 CREDIT HOURS
B1, C, OR E
3 CREDIT HOURS

MILESTONES:
• COMPLETE ENGL 1102 WITH C OR BETTER
• COMPLETE CALCULUS I

TERM 1: FALL
F: PHYS 2211/2211L
Principles of Physics I
4 CREDIT HOURS
F: MATH 2644
Calculus II
4 CREDIT HOURS
B1, C, OR E
3 CREDIT HOURS
B1, C, OR E
3 CREDIT HOURS

MILESTONES:
• COMPLETE INTRODUCTORY PHYSICS SEQUENCE
• COMPLETE MATH UP TO CALCULUS III

TERM 2: SPRING
F: PHYS 2212/2212L
Principles of Physics II
4 CREDIT HOURS
F: MATH 2654
Calculus III
4 CREDIT HOURS
MATH 3303
Ordinary Differential Equations
3 CREDIT HOURS
B1, C, OR E
3 CREDIT HOURS

MILESTONES:
• COMPLETE INTRODUCTORY PHYSICS SEQUENCE
• COMPLETE MATH UP TO CALCULUS III

TERM 2: SPRING

CRUSH YOUR COURSEWORK
• Enroll in XIDS 2001: Physical Universe and Core courses
• 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

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
• Visit the UWG Wellness Hub to find all the resources available to you
• Visit Health Services
• Visit Office of Career and Graduate School Connections
• Visit the Center for Economic Education and Financial Literacy

TAKE CARE OF YOURSELF
• 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

PAVE YOUR PATH

14 FALL CREDIT HOURS + 14 SPRING CREDIT HOURS = 28 CREDIT HOURS

14 FALL CREDIT HOURS + 14 SPRING CREDIT HOURS = 28 CREDIT HOURS

CRUSH YOUR COURSEWORK
• Become a Student Assistant for a physics lab, workshops or the Observatory
• Get involved in research or an internship
• Apply for summer internships or REUs
• Attend a scientific conference

FIND YOUR PLACE
• Become a Student Assistant for a physics lab, workshops or the Observatory
• Get involved in research or an internship
• Apply for summer internships or REUs
• Attend a scientific conference

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

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

TAKE CARE OF YOURSELF
• 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

PAVE YOUR PATH
• Draft your resume and attend a resume blitz
• Learn about how to 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
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

MATH OR FL ELECTIVE
3 CREDIT HOURS

B1, C, OR E
3 CREDIT HOURS

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

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

FIND YOUR PLACE
• Become a Student Assistant for a physics lab, workshops or the Observatory.
• Get involved in research or an internship.
• For summer internships or REUs.
• Attend a scientific conference.

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

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.

PAVE YOUR PATH
• Draft your resume and attend a resume blitz.
• Learn about how to 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.

TERM 2: SPRING

PHYS 3213
Thermodynamics
3 CREDIT HOURS

PHYS 3313
Electricity and Magnetism
3 CREDIT HOURS

MATH OR FL ELECTIVE
3 CREDIT HOURS

B1, C, OR E
3 CREDIT HOURS

PHYS ELECTIVE
3 CREDIT HOURS

16 FALL CREDIT HOURS + 18 SPRING CREDIT HOURS = 34 CREDIT HOURS

CRUSH YOUR COURSEWORK
• Finish your degree requirements.
• Complete your research/internships.
• Present at 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.