PHYSICS

GENERAL TRACK (PRECALCULUS START)

Bachelor of Science

60 CORE CREDIT HOURS

46 MAJOR CREDIT HOURS

14 ELECTIVE CREDIT HOURS

ABOUT THE MAJOR

The Bachelor of Science in Physics (General Track) provides a comprehensive foundation in physics, covering everything from subatomic particles to galaxies. This track is designed for students who desire to pursue graduate study in physics or career options for which physics is an excellent gateway such as engineering, data analytics, quality control specialist, and research scientist. A physics degree provides students with problem solving and mathematical skills to succeed in a wide range of careers in industry, academia, and national laboratories.

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.

VISIT WOLFWATCH FOR MORE INFORMATION.

HAVE A QUESTION? CHECK IN WITH YOUR ADVISOR!

HONORS COLLEGE

Consider joining if you have an Overall GPA of 3.2 and earned 15 college credit hours!

UNIVERSITY OF WEST GEORGIA

2026-2027

YEAR 1

TERM 1: FALL

C: ENGL 1101 — 3 CREDIT HOURS
English Composition I

M: MATH 1113 — 4 CREDIT HOURS
Precalculus

CORE OPTION: A, S, P — 3 CREDIT HOURS

I: XIDS 2002 — 2 CREDIT HOURS
First-Year Seminar

T1: CHEM 1211/1211L — 4 CREDIT HOURS
Principles of Chemistry I

MILESTONES:
- COMPLETE ENGL 1101 WITH C OR BETTER
- COMPLETE AREA M MATH

TERM 2: SPRING

C: ENGL 1102 — 3 CREDIT HOURS
English Composition II

T: MATH 1634 — 4 CREDIT HOURS
Calculus I

T: CHEM 1212/1212L — 4 CREDIT HOURS
Principles of Chemistry II

ASTR 2313 OR CORE: A/S/P — 3 CREDIT HOURS
Astronomy

I1: ORAL COMMUNICATIONS — 3 CREDIT HOURS

MILESTONES:
- COMPLETE ENGL 1102 WITH C OR BETTER
- COMPLETE CALCULUS I (MATH 1634) OVER THE SUMMER IN ORDER TO START PHYS SEQUENCE IN THE FALL, IF NEEDED.

16 FALL CREDIT HOURS + 16 SPRING CREDIT HOURS = 32 CREDIT HOURS

CRUSH YOUR COURSEWORK
- Enroll in XIDS 2001: Physical Universe and Core IMPACTS 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 UWG 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.

YEAR 2

TERM 1: FALL

F: PHYS 2211/2211L — 4 CREDIT HOURS
Principles of Physics I

F: MATH 2644 — 4 CREDIT HOURS
Calculus II

MATH 2853 OR CORE: A,S,P — 3 CREDIT HOURS
Elementary Linear Algebra

PHYS 2130 — 1 CREDIT HOUR
Sophomore Physics Seminar

CORE OPTION: A, S, P — 3 CREDIT HOURS

TERM 2: SPRING

F: PHYS 2212/2212L — 4 CREDIT HOURS
Principles of Physics II

F: MATH 2654 — 4 CREDIT HOURS
Calculus III

MATH 3303 — 3 CREDIT HOURS
Ordinary Differential Equations

CORE OPTION: A, S, P — 3 CREDIT HOURS

MILESTONES:
- COMPLETE INTRODUCTORY PHYSICS SEQUENCE
- COMPLETE MATH UP TO ODE

15 FALL CREDIT HOURS + 14 SPRING CREDIT HOURS = 29 CREDIT HOURS

CRUSH YOUR COURSEWORK
- Complete Principles of Physics.
- Take Modern, Mathematical, Mechanics, E&M and Thermal.
- 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.
- 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.

YEAR 3

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 ELECTIVE	3 CREDIT HOURS
CORE OPTION: A, S, P	3 CREDIT HOURS

TERM 2: SPRING

PHYS 3213 Thermodynamics	3 CREDIT HOURS
PHYS 3313 Electricity and Magnetism	3 CREDIT HOURS
MATH ELECTIVE	3 CREDIT HOURS
CORE OPTION: A, S, P	3 CREDIT HOURS
PHYS ELECTIVE	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, E&M and Thermal.
- 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.
- 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.

YEAR 4

TERM 1: FALL

PHYS 4513 OR 4523 Mathematical Physics or Computational Physics	3 CREDIT HOURS
PHYS 3510 Experimental Physics	2 CREDIT HOURS
PHYS ELECTIVE	3 CREDIT HOURS
PHYS ELECTIVE	3 CREDIT HOURS
CORE OPTION: A, S, P	3 CREDIT HOURS
ELECTIVE	3 CREDIT HOURS

TERM 2: SPRING

PHYS 4984 Physics Seminar	1 CREDIT HOUR
ELECTIVE 8 hours of Electives	8 CREDIT HOURS
PHYS ELECTIVE	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 revise it with career services.
- Attend business fairs and career fairs at UWG and across the state.
- Attend an interview workshop.
- Apply for graduate programs.