ABOUT THE MAJOR

This is a “3+2,” or Dual Degree, program that allows a student in approximately 5 academic years to obtain both a Bachelor of Science degree in Physics from the University of West Georgia and an engineering degree from Kennesaw State University. After completing the academic requirements of the two participating institutions, the student shall be awarded two bachelor’s degrees from the University of West Georgia and Kennesaw State University.

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.

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!

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

HONORS COLLEGE

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

PHYSICS

DUAL-DEGREE ENGINEERING

Bachelor of Science

60 CORE CREDIT HOURS

45 UWG MAJOR CREDIT HOURS

25 NON-UWG 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

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

T: CHEM 1211/1211L — 4 CREDIT HOURS
Principles of Chemistry I + Lab

CORE (A, S, P) — 3 CREDIT HOURS

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

I: ORAL COMMUNICATIONS — 2 CREDIT HOURS

CORE (A, S, P) — 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 — 3 CREDIT HOURS
Elementary Linear Algebra

PHYS 2130 — 1 CREDIT HOUR
Sophomore Physics Seminar

CORE (A, S, P) OR FL — 3 CREDIT HOURS

CORE (A, S, P) — 3 CREDIT HOURS

TERM 2: SPRING

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

MATH 3303 — 3 CREDIT HOURS
Ordinary Differential Equations

F: MATH 2654 — 4 CREDIT HOURS
Calculus III

CORE (A, S, P) OR FL — 3 CREDIT HOURS

CORE (A, S, P) — 3 CREDIT HOURS

MILESTONES:
- COMPLETE PRINCIPLES OF PHYSICS SEQUENCE
- COMPLETE MATH UP TO ODE

18 FALL CREDIT HOURS + 17 SPRING CREDIT HOURS = 35 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 ELECTIVE	2 CREDIT HOURS
MATH/PHYS ELECTIVE OR FL	3 CREDIT HOURS
CORE (A, S, P)	3 CREDIT HOURS

TERM 2: SPRING

PHYS 3213 Thermodynamics	3 CREDIT HOURS
PHYS 3133 Electricity and Magnetism	3 CREDIT HOURS
PHYS/MATH ELECTIVE OR FL	3 CREDIT HOURS
PHYS ELECTIVE	3 CREDIT HOURS
PHYS ELECTIVE	3 CREDIT HOURS

MILESTONE:
- **FILL OUT APPLICATION TO TRANSFER TO ENGINEERING PROGRAM**

14 FALL CREDIT HOURS + 15 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 4

COMPLETE DEGREE REQUIREMENTS AT ENGINEERING SCHOOL

After completing the academic requirements of UWG and the participating engineering institution, the student will be awarded the bachelor's degree from UWG.

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.