The B.S. in Marine and Coastal Science (MACS) is a new cohort-based, interdisciplinary, and experiential program designed to provide students with the opportunity to engage in coastal and marine-focused research. Active learning experiences help students develop into confident, thoughtful, ethical scientists who are ready to address the growing challenges affecting marine and coastal environments.

Each year, a new cohort of students begins the program, engaging in hands-on research and learning experiences in and around the Salish Sea, with opportunities for focused, residential study at Western’s Shannon Point Marine Center (SPMC) in Anacortes, about an hour from the main campus in Bellingham.
PROGRAM FEATURES

STUDY MARINE SCIENCE ACROSS DISCIPLINES
The new MACS major is a partnership between four existing academic departments (Biology, Geology, Chemistry, and Environmental Sciences) and Shannon Point Marine Center. You will have a unique opportunity to study marine science in an environment of interdisciplinary collaboration.

LEARN, WORK, AND THRIVE TOGETHER
Study marine science as a cohort, beginning with a research experience in your second year, and continuing through the third year with the core course series, and culminating with a capstone project in your final year.

GAIN RESEARCH EXPERIENCE
You will have opportunities to engage in mentored, hands-on research opportunities in your sophomore year through immersive study at the marine center in Anacortes, Washington.

ACCESS TO MARINE LABS & RESEARCH VESSELS
Spend time in the field, on oceanographic vessels, and in learning laboratories. Engage deeply in marine research and focused study of the Salish Sea.
HOW TO PREPARE

STEP 1: MEET WITH MACS ADVISOR
Schedule a meeting with the MACS program advisor to learn more about the major and preparatory courses, as well as the admissions process, including timeline and application requirements.

STEP 2: DECLARE AS A MACS PRE-MAJOR
If you decide to pursue Marine and Coastal Science as your major, declare as a pre-major as soon as possible to receive relevant updates, and stay connected with the program and the marine science community.

STEP 3: COMPLETE PREPARATORY COURSES
Enroll in, and complete preparatory courses for the major, in Math, Biology, Chemistry, Geology, and Physics.

STEP 4: APPLY TO THE MAJOR
Upon nearing completion of your preparatory courses, apply to the major by the program admissions deadline (January 15th).

STEP 5: START THE MAJOR
Upon admissions, enroll in MACS 210 (if you didn’t participate in the MSS program) in spring quarter and start the major core series in the fall, starting with MACS 301, followed by MACS 302 and 303 in winter and spring. Flesh out your degree program through a variety of elective courses focused on your goals and interests. Electives can be found on the MACS Degree Guide.
GENERAL ADMISSIONS INFORMATION
Once per year, the program admits a new cohort of approximately 30 students. Students begin the major as a cohort in the spring with MACS 210: Introduction to Marine and Coastal Science Research, and then move to the major core classes starting with MACS 301: Marine and Geological Processes in the fall.

The admissions application opens annually in November and closes on January 15th. Students apply on our website by submitting an online application found on the MACS website. Typically, students will apply during fall quarter of their sophomore year.

ELIGIBILITY REQUIREMENTS TO APPLY
Students are eligible to apply for admissions to the major when they have completed or will complete by the end of spring quarter all of the major preparatory courses listed below.

» MATH 124 – Calculus and Analytic Geometry I  
» MATH 125 – Calculus and Analytic Geometry II  
» CHEM 161 – General Chemistry I  
» CHEM 162 – General Chemistry II  
» CHEM 163 – General Chemistry III  
» GEOL 211 – Physical Geology  
» BIOL 204 – Introduction to Evolution, Ecology, and Biodiversity  
» PHYS 161 – Physics with Calculus I
MAJOR STUDENT ROADMAP

Start! | Select MACS as Program of Interest | Meet with MACS Advisor | Begin Prep Courses

FRESHMAN YEAR

Complete Prep Courses | Start Major Intro Research Course | Continue Prep Courses | Apply to MACS Major

SOPHOMORE YEAR

Core Course I | Core Course II | Core Course III | Major Courses & Electives

JUNIOR YEAR

Finish! | Capstone Research Course | Major Courses & Electives | Major Courses & Electives

SENIOR YEAR

Note: This roadmap reflects a student who decides to pursue the MACS major upon starting at Western.
SAMPLE STUDENT SCHEDULE

YEAR 1
- MATH 115/118 - Precalculus II
- GUR - General University Requirement Course
- MATH 124 - Calculus & Analytic Geometry I
- GEOL 211 - Physical Geology
- GUR - General University Requirement Course
- MATH 125 - Calculus & Analytic Geometry II
- CHEM 161 - General Chemistry I
- GUR - General University Requirement Course

YEAR 2
- PHYS 161 - Physics with Calculus I
- CHEM 162 - General Chemistry II
- GUR - General University Requirement Course
- BIOL 204 - Intro to Evolution, Ecol., & Biodiversity
- CHEM 163 - General Chemistry III
- GUR - General University Requirement Course
- BIOL 205 - Intro to Cellular & Molecular Biology
- GUR - General University Requirement Course

YEAR 3
- MACS 301 - Marine Physical Processes
- BIOL 206 - Intro to Organismal Biology
- GUR - General University Requirement Course
- MACS 302 - Marine Geological Processes
- 300+ Major Elective
- ESCI/BIOL 340 - Biostatistics
- MACS 303 - Marine Ecological Processes
- 300+ Major Elective
- GUR - General University Requirement Course

YEAR 4
- 300+ Major Elective
- 300+ Elective
- Elective
- MACS 310 - Marine Science & Society
- 300+ Elective
- Elective
- 300+ Major Elective
- 300+ Elective

*Sample schedule reflects a student who tests/places into Math 115/118 and completes the biology series. Each student schedule will vary.

CONTACT INFORMATION

Marine and Coastal Science

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WWU is an equal opportunity institution.