ESRM Marine and Coastal Systems Emphasis Checklist

Total Units Required for Graduation: 120

General Education Requirements: 42 units, not included in this guide

ESRM Major Requirements: 78 units total (includes emphasis specific units)

Marine and Coastal Systems Emphasis Specific Requirements: 19 units

Quick Navigation

ESRM Marine and Coastal Systems Emphasis Checklist
  Quick Navigation
  Foundations of ESRM (26 units)
  Core Environmental Sciences (8 units)
  Core Resource Management (6 units)
  Essential Skills (15 units)
  Field Experiences (choose 4 units)
  Marine and Coastal Systems Emphasis Core (11 units)
  Marine and Coastal Systems Electives (choose 8 units)

Foundations of ESRM (26 units)

- BIOL 200 - Principles of Organismal and Population Biology (4)
- BIOL 201 - Principles of Cell and Molecular Biology (4)
- CHEM 121 - General Chemistry I (4)
- choose one: ECON 110 - Principles of Microeconomics (3); ECON 111 - Principles of Macroeconomics (3)
- ESRM 100 - Introduction to Environmental Science and Resource Management (3)
- MATH 150 - Calculus 1 (4)
- choose one: PHYS 100 - Introduction to Physics I (4); PHYS 101 - Introduction to Physics II (4);
  PHYS 200 - General Physics I (4); PHYS 201 - General Physics II (4); COMP 150 - Object Oriented Programming (4)

Core Environmental Sciences (8 units)

- choose one: ESRM 210 - Physical Oceanography (4); GEOL 121 - Physical Geology (4)
- ESRM 313 - Conservation Biology (4)

Core Resource Management (6 units)
choose one: ESRM 200 - Principles of Resource Management, Conservation, and Stewardship (3); ESRM 205 - Sustainability (3)
ESRM 329 - Environmental Law and Policy (3)

**Essential Skills (15 units)**

- ESRM 203 - Introduction to Environmental Statistics (3)
- ESRM 303 - Data Visualization and Climate Communication (3)
- ESRM 328 - The Why of Where: Foundations in GIS (3)
- ESRM 491 - Capstone Preparation (3)
- ESRM 499 - Capstone (3)

**Field Experiences (choose 4 units)**

- ESRM 301 - Field Professionalism (1)
- ESRM 351 - Field Methods: Monitoring and Assessment (4)
- ESRM 370 - Fundamentals of Remotely Piloted Systems (4)
- ESRM 492 - Service Learning in New Orleans (3)
- UNIV 392 - Costa Rica (3) or Baja California Sur, Mexico (3) preferred

**Marine and Coastal Systems Emphasis Core (11 units)**

- ESRM 335 - The Beach (3)
- choose one: ESRM 300 - Coastal Contaminants and Ecotoxicology (4); ESRM 377 - Shaping the Coast (4)
- ESRM 462 - Coastal Resource Management (4)

**Marine and Coastal Systems Electives (choose 8 units)**

*Note: units used to fulfill other requirements cannot be counted as electives as well*

- ESRM 228 - Maps to Apps: Exploring GIS (3)
- ESRM 250 - Environmental Ethics (3)
- ESRM 300 - Coastal Contaminants and Ecotoxicology (4)
- ESRM 301 - Field Professionalism (1)
- ESRM 341 - The National Park (3)
- ESRM 342 - Environmental History (3)
- ESRM 351 - Field Methods: Monitoring and Assessment (4)
- ESRM 365 - Natural History and Resource Management of the California Channel Islands (3)
- ESRM 370 - Fundamentals of Remotely Piloted Systems (4)
- ESRM 371 - Coastal Monitoring with Remotely Piloted Systems (4)
- ESRM 377 - Shaping the Coast (4)
ESRM 400 - Analytics Studio (1)
ESRM 428 - Intermediate Geographic Information Systems (4)
ESRM 461 - Fish and Fisheries (3)
ESRM 464 - Land Use Planning and Open Space Management (4)
ESRM 482 - Issues in Environmental Planning and Resource Management (3)
ESRM 484 - Climate Change and Adaptation Planning
ESRM 486 - Special Topics in Marine and Coastal Systems (3)
ESRM 490 - Special Topics (3)
ESRM 492 - Service Learning / Internship (3)
ESRM 494 - Independent Research (1-3)
ESRM 496 - Environmental Film and Speaker Series (1)

Note: you may choose to use up to 6 units from the following list toward the Earth System Emphasis Electives to count toward your total of 8 required elective units

ANTH 445 - The Seacoast Through Time (3)
BIOL 312 - Marine Biology (4)
BIOL 319 - Plant Systematics and Identification (4)
BIOL 320 - Deep Sea Biology and Ecology (3)
BIOL 433 - Ecology and the Environment (4)
BIOL 450 - Ichthyology: The Biology of Fishes (4)
BIOL 451 - Ornithology (4)
BIOL 473 - Sustainable Agriculture (4)
CHEM 122 - General Chemistry II (4)
CHEM 301 - Environmental Chemistry: Atmosphere and Climate (3)
CHEM 302 - Environmental Chemistry: Soil and Water (4)
COMP 121 - Introduction to Programming in C for STEAM (3)
COMP 151 - Data Structures and Program Design (4)
ECON 362 - Environmental Economics (3)
ECON 480 - Topics in Environmental and Natural Resource Economics (3)
ENGL 337 - Literature of the Environment (3)
ENGL 482 - Technical and Business Writing (3)
ENGL 483 - Technical Communication (3)
ESRM 250 - Environmental Ethics (3)
ESRM 300 - Coastal Contaminants and Ecotoxicology (4)
ESRM 327 - Communicating Science and Policy (3)
ESRM 330 - Geomorphology and Hydrology (4)
ESRM 332 - Human Ecology (3)
ESRM 340 - Politics and the Environment (3)
ESRM 341 - The National Park (3)
ESRM 350 - Ecological Restoration Design and Construction (4)
ESRM 352 - Theory and Practice of Ecological Restoration (3)
ESRM 367 - Environmental Disasters (3)
ESRM 399 - Conservation Mechatronics Studio (1)
ESRM 410 - Environmental Impact Assessment (3)
ESRM 433 - Satellites to Sensors: Remote Sensing of the Environment (3)
ESRM 443 - Environmental Communication (3)
ESRM 450 - Environmental Conflict Resolution (3)
ESRM 463 - Water Resource Management (4)
ESRM 483 - Issues in Global Resource Management (3)
ESRM 485 - Special Topics in Earth Systems (3)
HIST 366 - Oceans of World History (3)
MATH 439 - Philosophy of Science (3)
PHYS 310 - Electronics (4)
PHYS 315 - Introduction to Biophysics (4)
PHYS 344 - Energy and Society (3)
SOC 355 - Environmental Sociology (3)