

ENVIRONMENTAL SCIENCES AND POLICY

Master List of Approved Courses

Students may suggest alternative courses as they become available by e-mailing suggestions to undergrad@nicholas.duke.edu.

SOCIAL SCIENCE AND HUMANITIES COURSES

Cultural Anthropology (CULANTH)

191ES: Global Environmentalism and the Politics of Nature

Documentary Studies (DOCST)

119: Views of Environmental Change (Beaufort) (C-L ENVIRON 189)

172S: Documenting the Environment (C-L ENVIRON 172S)

Economics (ECON)

156: Health Economics

163(S): Economics of the Environment

180: Law and Economics

196: Selected Topics: (various sections)

209S: Global Issues in Population and Development (C-L PUBPOL 209S)

219S: Economic Problems of Underdeveloped Areas

261: Evaluation of Public Expenditures (C-L ENVIRON 272, PUBPOL 261)

268S: Current Issues in International Development Economics (C-L ICS 201BS)

270: Resource and Environmental Economics (C-L ENVIRON 270, PUBPOL 272)

272: Economic Analysis of Resource and Environmental Policy (C-L ENV 271)

286: Economic Growth and Development Policy (C-L PUBPOL 286)

Environment (ENVIRON)

105S: Ethical Challenges in Environmental Conservation

128: Conservation and Management of Protected Areas in South Africa (South Africa)

129: Environmental Sciences and Policy of the Tropics (Costa Rica)

149: United States Environmental Policy (C-L PUBPOL 149)

152S: Environment and Conflict (C-L POLSCI 152S, PUBPOL 167S)

159: Fundamentals of GIS and Geospatial Analysis

160: Environmental Chemistry and Toxicology

171: Food and Energy

172S: Documenting the Environment (C-L DOCST 172S)

181(S): Special Topics in Environmental Sciences and Policy (various sections)

182: Special Topics in Environmental Sciences and Policy (various sections)

189: Views of Environmental Change (Beaufort) (C-L DOCST 119)

251D: International Conservation and Development

270: Resource and Environmental Economics (C-L ECON 270, PUBPOL 272)

271: Economic Analysis of Resource and Environmental Policy (C-L ECON 272)

272: Evaluation of Public Expenditures (C-L ECON 261, PUBPOL 261)

273: Marine Fisheries Policy (Beaufort)

274: Environmental Politics (C-L PUBPOL 274)

276: Marine Policy (C-L PUBPOL 297, POLSCI 264) (Beaufort)

280: Social Science Survey Methods for Environmental Management

281: Environmental Law

285: Land Use Principles and Policy (C-L PUBPOL 285)

296: Environmental Conflict Resolution

298: Special Topics (various sections)

History (HISTORY)

132: Modern World Environmental History 1500-present

189B: Public Health in America

International Comparative Studies (ICS)

102HD: Environmental Politics Beyond borders (C-L POLSCI 148D, PUBPOL 143D)

103CS: Environmental Science and Policy of the Tropics (C-L ENVIRON 129) (Costa Rica)

201BS: Current Issues in International Development Economics (C-L ECON 268S)

201CS: International Environmental Regimes (C-L POLSCI 271S, PUBPOL 258S)

Philosophy (PHIL)

115: Applied and Environmental Ethics
 234S: Philosophy of Biology (C-L BIOLOGY 234S)

Political Science (POLSCI)

147D: Environmental Politics and Policies in the Developing World (C-L PUBPOL 147D)
 148D: Environmental Politics Beyond Borders (C-L ICS 102HD, PUBPOL 143D)
 149D: Globalization and Public Policy (C-L PUBPOL 185D)
 152S: Environment and Conflict (C-L ENVIRON 152S, PUBPOL 167S)
 155: Political Economy of Development
 158: Non-State Actors in World Politics (C-L PUBPOL 181)
 167: International Law and International Institutions
 183: Ecological Crisis and Political Theory
 205S: Collective Action, Property Rights, and the Environment
 264: Marine Policy (C-L PUBPOL 297, ENVIRON 276) (Beaufort)
 271S: International Environmental Regimes (C-L ICS 201CS, PUBPOL 258S)

Public Policy Studies (PUBPOL)

106S: Animals and Ethics: Welfare, Rights, Utilitarianism, and Beyond (C-L WOMENST 101S)
 143D: Environmental Politics Beyond Borders (C-L ICS 102HD, POLSCI 148D)
 147D: Environmental Politics and Policies of the Developing World (C-L POLSCI 147D)
 149: United States Environmental Policy (C-L ENVIRON 149)
 154: Multidisciplinary Approaches to Global Health
 167S: Environment and Conflict (C-L ENVIRON 152S, POLSCI 152S)
 185D: Globalization and Public Policy (C-L POLSCI 149D)
 196S: Special Topics (certain sections only)
 209S: Global issues in Population and Development (C-L ECON 209S)
 239: Nonprofit Leadership and Management
 258S: International Environmental Regimes (C-L ICS 201CS, POLSCI 271S)
 261: Evaluation of Public Expenditures (C-L ENVIRON 272, ECON 261)
 272: Resource and Environmental Economics (C-L ENVIRON 270, ECON 270)
 274: Environmental Politics (C-L ENVIRON 274)
 285: Land Use Principles and Policy (C-L ENVIRON 285)
 286: Economic Growth and Development Policy (C-L ECON 286)
 297: Marine Policy (C-L PS 264, ENVIRON 276) (Beaufort)

Religion (RELIGION)

185(S): Special Topics (certain sections only)

Sociology (SOCIOL)

126: The Challenges of Development
 145: Nations, Regions, and the Global Economy
 215: Basic Demographic Methods

Women's Studies (WOMENST)

101S: Animals and Ethics: Welfare, Rights, Utilitarianism, and Beyond (C-L PUBPOL 106S)

SCIENCE AND ENGINEERING COURSES**Biology (BIOLOGY)**

101: Biogeography in an Australian Context (C-L: Environment 168, Earth and Ocean Sciences 168)
 102L: Trees and Shrubs of North Carolina
 109: Conservation Biology and Policy (Beaufort)
 110L: Ecology (C-L ENVIRON 110L)
 114L: Biological Oceanography (C-L ENVIRON 114L) (Beaufort)
 116: Fundamentals of Ecology and Evolution
 122: Population Genetics
 123: Analysis of Ocean Ecosystems (C-L ENVIRON 123) (Beaufort)
 124: Molecular Evolution
 125L: Biology and Conservation of Sea Turtles (C-L ENVIRON 135L) (Beaufort)
 126: Marine Mammals (Beaufort)
 127: Marine Megafauna
 129L: Marine Ecology (C-L ENVIRON 139L) (Beaufort)
 130L: Coral Reef Ecology (Bermuda)
 132S: Marine Biodiversity
 133S: Molecular Approaches to Questions of Physiology, Ecology, and Evolution in the

Marine Environment (C-L ENVIRON 133S)
 134: Fundamentals of Tropical Biology (Costa Rica)
 135L: Field Methods in Tropical Biology (Costa Rica)
 137: South African Ecosystems and Diversity (C-L ENVIRON 197) (South Africa)
 138L: Field Research in Savana Ecology (C-L ENVIRON 198L) (South Africa)
 140L: Plant Diversity
 141L: Plant Communities of North Carolina
 142L: Plant Systematics and Evolution
 150L: Physiology of Marine Animals (Beaufort)
 155L: Biochemistry of Marine Animals
 156L: Sensory Physiology and Behavior of Marine Mammals
 160: Population Ecology
 166 Evolution of Animal Behavior
 172S: Ecosystems Ecology (C-L ENVIRON 173S)
 174: Philosophy of Biology (C-L PHIL 114)
 176AL/BL: Marine Invertebrate Zoology (C-L ENVIRON 176AL/BL) (Beaufort/Bermuda)
 178L: Marine Ichthyology (Beaufort) (C-L ENVIRON 178L)
 188L: Research Methods in Marine Science (Beaufort) (C-L ENVIRON 188L)
 204LS: Field Ecology (C-L ENVIRON 204LS)
 207AL: Experimental Tropical Marine Ecology
 207BL: Marine Ecology of the Pacific Coast of California
 207CL: Ocean Ecosystems
 207EL: Harmony in Brittany: French Use of Marine Environments
 211L: Microbial Ecology and Evolution
 217: Ecology and Global Change
 219L: Coastal Ecosystems Processes (Beaufort)
 222L: Entomology
 230L: Weather and Climate
 241L: Field Botany
 242L: Field Botany of North Carolina Wetlands (C-L ENVIRON 237L)
 252: Marine Conservation Biology
 254: Vertebrate and Invertebrate Endocrinology
 267L: Biodiversity Science and Application (C-L ENVIRON 257L)
 268L: Models for Environmental Data (C-L ENVIRON 231L)
 272: Biogeochemistry (C-L ENVIRON 282, EOS 272)
 273S: Current Topics in Environmental Biology
 295S: Seminar Topics Seminar (various sections)

Biomedical Engineering (BME)

207: Transport Phenomenon: Biological Systems (C-L CE 207, ME 207)

Civil and Environmental Engineering (CE)

116: Transportation Engineering
 120L: Chemistry Processes in Environmental Engineering
 123L: Water Resources Engineering
 124L: Environmental Engineering
 139L: Introduction to Soil Mechanics
 193: Integrated Environmental Design
 207: Transport Phenomenon: Biological Systems (C-L BME 207, ME 207)
 208: Environmental Transport Phenomena
 218L: Barrier Island Ecology (C-L ENVIRON 218L)
 225: Dynamic Engineering Hydrology
 237: Advanced Soil Mechanics
 240: Chemical Fate of Organic Compounds (C-L ENVIRON 240)
 241: Physical Chemical Processes in Chemical Engineering
 244: Biological Processes of Environmental Engineering
 245: Pollutant Transport Systems
 247: Air Pollution Control Engineering
 248 Solid Waste Engineering (C-L ENVIRON 248)
 249: Control of Hazardous and Toxic Waste
 262: Analytical Models of Subsurface Hydrology
 265: Advanced Topics in Civil and Environmental Engineering (various sections)
 270: Environmental and Engineering Geophysics
 271: Inverse Problems in Geoscience and Engineering

Cell Biology (CELLBIO)

243: Environmental Biochemistry (C-L ENVIRON 243)

Chemistry (CHEM)

117: Inorganic Chemistry
 131: Analytical Chemistry
 151L: Organic Chemistry
 152L: Organic Chemistry
 165: Physical Chemistry
 166: Physical Chemistry (also 163L, 168L)
 176: Biophysical Chemistry

Computer Science (COMPSCI)

Specific courses with approval of the Director of Undergraduate Studies

Earth and Ocean Sciences (EOS)

102: The Fluid Earth
 103S: The Surface of the Earth
 107L: The Evolving Earth and Life
 113: The Modern and Ancient Oceanic Environments
 115: Waves, Beaches, and Coastline Dynamics
 116: Beach and Island Geological Processes
 120: Environmental Geology
 123: Hydrogeology
 125: The Future
 126S: Field Methods of Earth and Environmental Sciences (C-L ENVIRON 126S)
 140: Remote Sensing in Earth Science
 151S: Global Environmental Change
 155: Global Warming
 187S: Marine Geology of South Florida
 209S: Paleoclimate
 210S: Paleoenvironmental Analysis
 211: The Climate System
 212: Climate Change
 214: Advanced Issues in Paleoclimatology
 215: Introduction to Physical Coastal Processes
 222: The Geology Side of Energy
 227: International Water Resources
 236S: Lithosphere Plate Boundaries
 243S: Landscape Dynamics
 251S: Global Environmental Change
 252: Introduction to Geophysics
 257: Seismology III
 272: Biogeochemistry (C-L BIOLOGY 272, ENVIRON 282)
 278: Tropical Climate Paleoclimate

Engineering (EGR)

176S: Global Climate Change

Environment (ENVIRON)

103D: Conserving the Variety of Life on Earth
 110L: Ecology (C-L BIOLOGY 110L)
 114L: Biological Oceanography (C-L BIOLOGY 114L) (Beaufort)
 123: Analysis of Ocean Ecosystems (C-L BIOLOGY 123) (Beaufort)
 126S: Field Methods of Earth and Environmental Sciences (C-L EOS 126S)
 129: Environmental Science and Policy of Tropics (C-L ICS 103CS) (Costa Rica)
 132S: Current Topics in Oceanography and Marine Biology (Bermuda)
 133S: Molecular Approaches to Questions of Physiology, Ecology, and Evolution in the Marine Environment (C-L BIOLOGY 133S)
 134S: Hands on Habitats (Beaufort)
 135L: Biology and Conservation of Sea Turtles (C-L BIOLOGY 125L) (Beaufort)
 139L: Marine Ecology (C-L BIOLOGY 129L) (Beaufort)
 140: A Scientist's Perspective on Environmental Principles, Policy, and Legislation (Bermuda)
 151L: Marine CSI – Conservation Forensics in the Marine Environment
 160: Environmental Chemistry and Toxicology
 173S: Ecosystems Ecology (C-L BIOLOGY 172S)

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176AL/BL: Marine Invertebrate Zoology (C-L BIOLOGY 176AL/BL) (Beaufort/Bermuda)
 178L: Marine Ichthyology (Beaufort) (C-L BIOLOGY 178L)
 179: Introduction to Atmospheric Chemistry
 188L: Research Methods in Marine Science (Beaufort) (C-L BIOLOGY 188L)
 191: Independent Study Research
 192: Independent Study
 197: South African Ecosystems and Diversity (C-L BIOLOGY 137) (South Africa)
 198L: Field Research in Savana Ecology (C-L BIOLOGY 138L) (South Africa)
 201: Forest Resources Field Skills
 203: Conservation Biology: Theory and Practice
 204LS: Field Ecology (C-L BIOLOGY 204LS)
 205L: Ecological Management of Forest Systems (Silviculture)
 206: Forest Vegetation Sampling
 210: Applied Data Analysis for Environmental Sciences (C-L STA 240)
 212: Environmental Toxicology
 213: Forest Ecosystems
 214: Landscape Ecology
 216: Applied Population Ecology
 217: Tropical Ecology (C-L BIOLOGY 215)
 218L: Barrier Island Ecology (C-L BIOLOGY 218L)
 221L: Soil Resources
 224L: Coastal Ecosystem Processes (C-L BIOLOGY 219L) (Beaufort)
 225L: Coastal Ecotoxicology and Pollution (Beaufort)
 231L: Models for Environmental Data (C-L BIOLOGY 268L)
 234L: Watershed Hydrology
 235: Air Quality Management
 236: Water Quality Management
 237L: Field Botany of North Carolina's Wetlands (C-L BIOLOGY 242L)
 239: Health and Ecological Risk Assessment
 240: Chemical Fate of Organic Compounds (C-L CE 240)
 243: Environmental Biochemistry (C-L CELLBIO 243)
 246: Survey of Occupational Health and Safety
 247: Survey of Environmental Health and Safety
 248: Solid Waste Engineering (C-L CE 248)
 255: Applied Regression Analysis (C-L STA 242)
 256S: Seminar in Ocean Sciences (Beaufort)
 257L: Biodiversity Science and Application (C-L BIOLOGY 267L)
 264: Applied Differential Equations in Environmental Sciences
 267S: Conservation Biology of Marine Mammals
 282: Biogeochemistry (C-L BIOLOGY 272, ENVIRON 282)
 292L: Biological Oceanography (Beaufort/Bermuda)
 298: Special topics (various sections)

Evolutionary Anthropology (EVANTH)

132: Human Evolution
 143: Primate Ecology
 144L: Primate Field Biology
 146(S): Sociobiology
 180(S): Current Issues in Biological Anthropology and Anatomy (certain sections only)
 184S: Primate Conservation
 240S: Hominid Socioecology
 249S: Microevolution and Sociobiology
 280S: Seminar in Selected Topics (certain sections only)

Mechanical Engineering (ME)

121: Energy, Engineering, and the Environment
 207: Transport Phenomenon: Biological Systems (C-L BME 207, CE 207)

Mathematics (MATH)

Specific courses with approval of the Director of Undergraduate Studies

Physics (PHYSICS)

Specific courses with approval of the Director of Undergraduate Studies

Statistics (STA)

210: Applied Data Analysis for Environmental Sciences (C-L ENVIRON 210)

242: Applied Regression Analysis (C-L ENVIRON 255)

School of Medicine/Graduate School

Specific courses in Biochemistry (BIOCHEM), Cell Biology (CELLBIO), Microbiology (MICROBIO), Neurobiology (NEUROBIO), Pathology (PATHOL), and Pharmacology (PHARM), with the approval of the Director of Undergraduate Studies.