**Sustainability Curriculum @ UC Irvine**

**RED = Sustainability-Focused**  
**BLUE = Sustainability - Related**

**Undergraduate __________**

**General Education**

**Category I: Writing (Upper Division)**
- BioSci 191CW (Writing/Senior Seminar on Global Sustainability)

**Category II: Science and Technology**
- EarthSS 1 (The Physical Environment)
- EarthSS 3 (Oceanography)
- EarthSS 5 (The Atmosphere)
- EarthSS 7 (Geology)
- EarthSS 17 (Hurricanes, Tsunamis, and Other Catastrophes)
- EarthSS 80 (The Idiom and Practice of Science)
- EarthSS 13 (Global Change Biology)
- EarthSS 15 (Introduction to Global Climate Change)
- EarthSS 23 (Air Pollution and Global Environment)
- Information and Computer Science 5 (Environmental Issues in Information Technology)
- PubHlth 60 (Environmental Quality and Health)
- PubHlth 90 (Natural Disasters)
- University Studies 13 A-B-C (Environmental Studies) [counts for 2 courses]

**Category III: Social and Behavior**
- Social Ecology 8E (Environmental Analysis and Design)
- Social Science 5A (Introduction to Human Geography)
- ENGR CEE 60 (Contemporary and Emerging Environmental Challenges)
- University Studies 13 A-B-C (Environmental Studies) [counts for 1 course]

**Category V: Quantitative, Symbolic and Computational Reasoning**

**Category VII: International/Global Issues**
- PolSci 154G (Conflict Management in Cross-Cultural Perspective)
- Anthro 20A (People, Cultures, and Environmental Sustainability)
- Intl St 122 (Nuclear Environment)
- Public Health 168 Nuclear Environments [same as Social Ecology E127]

**School of Biological Sciences**

**Majors**
- Biological Sciences (B.S.)
  - BIOSCI E118 (Ecosystems Ecology)
  - BIOSCI E127 (Physiological Plant Ecology)
  - BIOSCI E140 (Evolution and Environment)
  - BIOSCI E150 (Conservation Biology)
  - BIOSCI E175 (Restoration Ecology)
  - BIOSCI E179 (Limnology Freshwater Ecology)
  - BIOSCI E179L (Field Freshwater Ecology)
  - BIOSCI E181 (Conservation in the American West)
  - BIOSCI E182 (Mediterranean-Type Ecosystems: Biodiversity and Conservation)
  - BIOSCI E186 (Population and Community Ecology)
  - BIOSCI E189 (Environmental Ethics)

**Biochemistry and Molecular Biology (B.S.)**
- BIOSCI E118 (Ecosystems Ecology)
- BIOSCI E127 (Physiological Plant Ecology)
- BIOSCI E140 (Evolution and Environment)
- BIOSCI E175 (Restoration Ecology)
- BIOSCI E179 (Limnology Freshwater Ecology)
- BIOSCI E179L (Field Freshwater Ecology)
- BIOSCI E181 (Conservation in the American West)
- BIOSCI E182 (Mediterranean-Type Ecosystems: Biodiversity and Conservation)
- BIOSCI E186 (Population and Community Ecology)

**Minors**
- Biological Sciences
  - BIOSCI E118 (Ecosystems Ecology)
  - BIOSCI E127 (Physiological Plant Ecology)
  - BIOSCI E140 (Evolution and Environment)
  - BIOSCI E150 (Conservation Biology)
  - BIOSCI E175 (Restoration Ecology)
Interdisciplinary Studies

Minors
Global Sustainability
- BIOSCI E191A-B (Senior Seminar on Global Sustainability) [same as ESS 190A-B & SocEcol 186CW]
- BIOSCI 191CW (Writing/Senior Seminar on Global Sustainability III) [same as ESS 190CW & SocEcol 186CW]
- BIOSCI E150 (Conservation Biology)
- BIOSCI E175 (Restoration Ecology)
- BIOSCI E179 (Limnology freshwater Ecology)
- BIOSCI E179L (Field freshwater Ecology)
- BIOSCI E182 (Mediterranean-type Ecosystems: Biodiversity and Conservation)
- BIOSCI E186 (Population and Community Ecology)
- BIOSCI E189 (Environmental Ethics)
- PUBH 60 (Environmental Quality and Health)
- PUBH 106 (Environmental Health)
- EarthSS 3 (Oceanography)
- EarthSS 13 (Global Change Biology) [BioSci 9K]
- EarthSS 180 (Environmental Sustainability I) [same as PP&D 131]
- EarthSS 182 (Environmental Sustainability II) [same as PP&D 132]
- EarthSS 190A-B (Senior Seminar on Global Sustainability I, II) [same as BioSci 191A-B, SocEcol 186A-B]
- EarthSS 190CW (Writing/Senior Seminar on Global Sustainability III) [same as BioSci 191CW & SocEcol 186CW]
- SocEcol E8 (Introduction to Environmental Analysis & Design)
- PP&D 112 (Foundations of Community Health)
- PP&D 131 (Environmental Sustainability I) [same as EarthSS 180 & PolSci 139]
- PP&D 132 (Environmental Sustainability II) [same as EarthSS 182]
- PP&D 134 (Human Ecology)
- Anthro 20A (People, Culture and Environmental Sustainability)
- PolSci 143D (Global Environmental Issues) [same as IntSt 120 same as PP&D 136]
- IntSt 122 (Nuclear Environment)
- Sociol 44 (Population)
- UniStud 13A-B-C (Environmental Studies)

School of Physical Sciences

Majors
Earth and Environmental Sciences (B.S.)
- BIOSCI E186 (Population and Community Ecology)
- BIOSCI E189 (Environmental Ethics)
- ENGR CEE 162 (Introduction to Environmental Chemistry)
- ENGR CEE 171 (Water Resources Engineering)
- ENGR CEE 172 (Groundwater Hydrology)
- ENGR CEE 176 (Hydrology)
- ENGR MAE 164 (Air Pollution and Control)
- EarthSS 1 (The Physical Environment)
- EarthSS 15 (Introduction to Global Climate Change)
- EarthSS 17 (Catastrophes)
- EarthSS 55 (Earth's Atmosphere)
- EarthSS 60A (Earth and Environmental Science)
- EarthSS 60B (Local and Regional Environmental Issues)
- EarthSS 60C (Global Environmental Issues)
- EarthSS 112 (Global Climate Change)
- EarthSS 164 (Ecosystem Ecology)
- EarthSS 180 (Environmental Sustainability I) [same as PP&D 131 & PolSci 139]
- EarthSS 182 (Environmental Sustainability II) [same as PP&D 132]
- PP&D 139 (Water Resource Policy) [same as PolSci 129]
- Econ 145E (Economics of the Environment)

Chemistry (B.S.)
- ENGR CEE 162 (Introduction to Environmental Chemistry)

Minors
Earth and Atmospheric Sciences
- EarthSS 51 (Land Interactions)
- EarthSS 53 (Ocean Biogeochermo)
- EarthSS 55 (Earth's Atmospheric)
- EarthSS 112 (Global Climate Change)
- EarthSS 164 (Ecosystem Ecology)
- EarthSS 180 (Environmental Sustainability I) [same as PP&D 131 & PolSci 139]
- EarthSS 182 (Environmental Sustainability II) [same as PP&D 132]
- EarthSS 190A-B (Senior Seminar on Global Sustainability I, II) [same as BioSci 191A-B & SocEcol 186A-B]
- EarthSS 190CW (Writing/Senior Seminar on Global Sustainability III) [same as BioSci 191CW & SocEcol 186CW]
- EarthSS 1 (The Physical Environment)
- EarthSS 3 (Oceanography)
- EarthSS 5 (The Atmosphere)
- EarthSS 7 (Geology)
- EarthSS 15 (Introduction to Global Climate Change)
- EarthSS 17 (Catastrophes)
- EarthSS 55 (Earth's Atmosphere)
- EarthSS 60A (Earth and Environmental Science)
- EarthSS 60B (Local and Regional Environmental Issues)
- EarthSS 60C (Global Environmental Issues)
- EarthSS 112 (Global Climate Change)
- EarthSS 164 (Ecosystem Ecology)
- EarthSS 180 (Environmental Sustainability I) [same as PP&D 131 & PolSci 139]
- EarthSS 182 (Environmental Sustainability II) [same as PP&D 132]
- PP&D 139 (Water Resource Policy) [same as PolSci 129]
- Econ 145E (Economics of the Environment)

College of Health Sciences

Majors
Public Health Sciences (B.S.)
Henry Samueli School of Engineering

Majors

Environmental Engineering (B.S.)
- ENGR CEE 60 (Contemporary and Emerging Environmental Challenges)
- ENGR CEE 160 (Environmental Processes)
- ENGR CEE 162 (Introduction to Environmental Chemistry)
- ENGR CEE 163 (Biological Treatment Process Design)
- ENGR CEE 167 (Ecology of Coastal Waters)
- ENGR CEE 171 (Water Resources Engineering)
- ENGR CEE 172 (Groundwater Hydrology)
- ENGR CEE 173 (Computer Tools for Watershed Model)
- ENGR CEE 176 (Hydrology)
- ENGR CEE 181 A-B-C (Senior Design Practicum)
- ENGR MAE 110 (Combustion and Fuel Cell Systems)
- ENGR MAE 164 (Air Pollution and Control)

Civil Engineering (B.S.)
- ENGR CEE 60 (Contemporary and Emerging Environmental Challenges)
- ENGR CEE 160 (Environmental Processes)
- ENGR CEE 171 (Water Resources Engineering)
- ENGR CEE 172 (Groundwater Hydrology)
- ENGR CEE 176 (Hydrology)
- ENGR CEE 181 A-B-C (Senior Design Practicum)
- ENGR MAE 110 (Combustion and Fuel Cell Systems)
- ENGR MAE 164 (Air Pollution and Control)

Chemical Engineering (B.S.)
- ENGR CEE 162 (Introduction to Environmental Chemistry)
- ENGR CEE 163 (Biological Treatment Process Design)
- ENGR CEE 171 (Water Resources Engineering)
- ENGR CEE 172 (Groundwater Hydrology)
- ENGR MAE 110 (Combustion and Fuel Cell Systems)
- ENGR MAE 164 (Air Pollution and Control)

School of Social Ecology

Majors

Social Ecology (B.A.)
- PP&D 107 (Urban and Regional Planning)
- PP&D 108 (Cities and Transportation)
- SocEcol E8 (Introduction to Environmental Analysis & Design)

Urban Studies (B.A.)
- PP&D 107 (Urban and Regional Planning)
- PP&D 108 (Cities and Transportation)
- PP&D 112 (Foundations of Community Health)
- PP&D 131 (Environmental Sustainability I) [same as EarthSS 180 & PolSci 139]
- PP&D 132 (Environmental Sustainability II) [same as EarthSS 182]
- PP&D 139 (Water Resource Policy) [same as PolSci 129]
- PP&D 151 (Environmental Psychology) [same as PSB 171S & Public Health 151]
- PP&D 153 (Elements of Environmental Design)
- PP&D 155 (Urban Design Principles)

Criminology, Law and Society (B.A.)
- SocEcol E8 (Introduction to Environmental Analysis & Design)

Minors

Urban and Regional Planning
- PP&D 107 (Urban and Regional Planning)
- PP&D 108 (Cities and Transportation)
Sociology (B.A.)
Social Policy and Public Service
International Studies (B.A.)
and Economics
Quantitative Economics
and Economics
Business Economics (B.A.)
Economics (B.A.)
Anthropology (B.A.)

School of Social Sciences

Majors
Anthropology (B.A.)
Economics (B.A.)
Business Economics (B.A.)
- Specialization in International Issues and Economics
Quantitative Economics - Specialization in International Issues and Economics
International Studies (B.A.)

Minors
Sociol 44 (Population)
Anthropology
Anthro 20A (People, Culture and Environmental Sustainability)

International Studies
- PP&D 131 (Environmental Sustainability I) [same as EarthSS 180 & PolSci 139]
- PP&D 132 (Environmental Sustainability II) [same as EarthSS 182]
- PP&D 134 (Human Ecology)
- IntlSt 122 (Nuclear Environment)

Conflict Resolution
- PolSci 154G (Conflict Management in Cross-Cultural Perspective) [same as Anthro 136D, IntlSt 183E, Socsci 183E]

Political Science
- PoliSc 154G (Conflict Management in Cross-Cultural Perspective) [same as Anthro 136D, IntlSt 183E, Socsci 183E]

Certificates & Programs
First-Year Integrated Program
- UniStudies 13A-B-C (Environmental Studies)
- UniStudies 17A-B-C (Water)
Sustainability I & II Completion Certificate
- EarthSS 180 (Environmental Sustainability I) [same as PP&D 131 & PolSci 139]
- EarthSS 182 (Environmental Sustainability II) [same as PP&D 131 & PolSci 139]

Anthropology Global Studies Certificate
- Anthro 20A (People, Culture and Environmental Sustainability)

School of Engineering

Materials Science and Engineering (Ph.D)
- ENGR CEE 263 (Advanced Biological Treatment Processes)
- ENGR CEE 264 (Carbon Footprint Analysis for Water and Wastewater Systems)
- ENGR CEE 265 (Advanced Physical-Chemical Treatment Processes)
- ENGR CEE 266 (Biotechnology of Wastewater)
- ENGR CEE 268 (Pollution Prevention Through Manufacturing, Materials Selection and Product Design)
- ENGR CEE 272 (Groundwater Hydrology)
- ENGR CEE 273 (Watershed Modeling)
- ENGR CEE 276 (Hydrology)
- ENGR CEE 289 (Analysis of Hydrologic Systems)
- ENGR MAE 214 (Fuel Cell Fundamentals and Technology)
- ENGR MAE 218 (Sustainable Energy Systems)
- ENGR MAE 260 (Issues Related to Tropospheric and Stratospheric Processes: Global Climate Change)
- ENGR MAE 261 (Air Quality Modeling)

Chemistry: Specialization in Atmospheric Chemistry (Ph.D)
- Chem 245 (Atmospheric Chemistry of the Natural and Polluted Troposphere)

Earth System Science (Ph.D)
- EarthSS 202 (Climate Change)
- EarthSS 212 (Geoscience Modeling and Data Analysis)
- EarthSS 224 (Land Surface Processes)
- EarthSS 232 (Terrestrial Hydrology)
- EarthSS 240 (Atmospheric Chemistry and Physics)
- EarthSS 266 (Global Biological Change)
- EarthSS 268 (Physiological Plant Ecology)
- EarthSS 282A (Special Topics in Climate)
- EarthSS 284A-B-C (Special Topics in Atmospheric Chemistry)
- EarthSS 286A-B (Special Topics in Biogeochemistry)
- EarthSS 288A-B-C (Special Topics in Ecosystems)
- EarthSS 290 (Seminar)
- EarthSS 298 (Practicum in Earth System Science)
- EarthSS 299 (Research)

Earth System Science (M.S)
- EarthSS 202 (Climate Change)
- EarthSS 212 (Geoscience Modeling and Data Analysis)
- EarthSS 224 (Land Surface Processes)
- EarthSS 232 (Terrestrial Hydrology)
- EarthSS 240 (Atmospheric Chemistry and Physics)
- EarthSS 266 (Global Biological Change)
- EarthSS 268 (Physiological Plant Ecology)
- EarthSS 282A (Special Topics in Climate)
- EarthSS 284A-B-C (Special Topics in Atmospheric Chemistry)
- EarthSS 286A-B (Special Topics in Biogeochemistry)
- EarthSS 288A-B-C (Special Topics in Ecosystems)
- EarthSS 290 (Seminar)
- EarthSS 298 (Practicum in Earth System Science)
- EarthSS 299 (Research)

School of Law

Law (J.D.)
- LAW 553 (Seminar International Environmental Law)
- LAW 578 (Environmental Law)
- LAW 597AC (Advanced Community and Economic Development)
- LAW 597AE (Advanced Environmental Law)
- LAW 597C (Community and Economic Development Clinic)
- LAW 597E (Environmental Law Clinic)
- LAW 5657 (Animal Law)
- LAW 5788 (Federal Public Land and Natural Resource Law)

The Paul Merage School of Business

Masters of Business Administration (M.B.A.)
- MGMT MBA 206 (Business and Government)

Fully Employed M.B.A. (FEMBA)

School of Social Ecology

Criminology, Law and Society (Ph.D.)
- Crm/Law C207 (Development Control Law and Policy) [same as PP&D 207]
- Crm/Law C252 (Issues in Environmental Law and Policy) [same as PP&D 252]

Criminology, Law and Society (M.A.S.)
- Crm/Law C207 (Development Control Law and Policy) [same as PP&D 207]
- Crm/Law C252 (Issues in Environmental Law and Policy) [same as PP&D 252]

Social Ecology; Concentration in Social and Demographic Analysis (Ph.D.)

Social Ecology; Concentration in Social and Demographic Analysis (M.S.)

Masters of Urban and Regional Planning (MURP)
- PP&D 207 (Development Control Law and Policy) [same as C207]
- PP&D 224 (Environmental Policy and Politics)
- PP&D 231 (Transportation and Environmental Health)
- PP&D 235 (Geographic Information Systems (GIS) Problem Solving Planning)
- PP&D 244 (Land-Use Policy)

- PP&D 252 (Issue in Environmental Law and Policy) [same as C252]
- PP&D 270 (Environmental Ethics)

Dual Masters Program

Civil Engineering/Urban and Regional Planning (MSCE/MURP)
- ENGR CEE 263 (Advanced Biological Treatment Processes)
- ENGR CEE 264 (Carbon Footprint Analysis for Water and Wastewater Systems)
- ENGR CEE 265 (Advanced Physical-Chemical Treatment Processes)
- ENGR CEE 268 (Pollution Prevention Through Manufacturing, Materials Selection and Product Design)
- ENGR CEE 273 (Watershed Modeling)
- ENGR CEE 276 (Hydrology)
- ENGR CEE 289 (Analysis of Hydrologic Systems)
- PP&D 207 (Development Control Law and Policy) [same as C207]
- PP&D 244 (Land-Use Policy)
- PP&D 252 (Issue in Environmental Law and Policy) [same as C252]

Institute of Transportation Studies

Transportation Science Graduate Program (Ph.D.)
- PP&D 231 (Transportation and Environmental Health)
- PP&D 252 (Issues in Environmental Law & Policy)
- PP&D 235 (Geographic Information Systems: Problem Solving in Planning)
- PP&D 244 (Land-Use Policy)

Transportation Science Graduate Program (M.S.)
- PP&D 231 (Transportation and Environmental Health)
- PP&D 252 (Issues in Environmental Law & Policy)
- PP&D 235 (Geographic Information Systems: Problem Solving in Planning)
- PP&D 244 (Land-Use Policy)