Updated: 9/25/2018

Environmental Engineering General Electives

This is a guide for ENE students for the selection of the ENE General Elective (noted as ENE Elective III in the Plan of Work).

The students may choose from one of the following:

1. An Environmental Engineering Elective not taken for ENE Elective I or II from the list:

   CE 479/579 - Air Quality
   CE 476/576 - Air Pollution Control
   CE 478/578 - Energy & Climate
   CE 497/597 – WaSH
   CE 487 - Intro to Coastal Engineering
   CE 342 - Soils and Foundations (prerequisite: CE 313)
   CE 435 - Engineering Geology
   CE 537 - Computer Methods
   CE 497/596 (S) – Renewable Energy and the Grid
   CE 596 (F) – Engineering Measurement and Data Analysis
   CE 497 (Sum) - Water Supply and Treatment in Low-Resource Settings[1]

2. Or one Environmental General Elective from the **approved** list to expand engineering domain knowledge, learn new methods, or focus on complimentary content in other disciplines:

   - CH 220+ CH 222 (F/S) – Introduction to Organic Chemistry (w/ Lab)
   - TOX 415 (F) – Environmental Toxicology and Chemistry
   - MEA 411 (F) – Marine Sediment Transport
   - MEA 460 (F) – Physical Oceanography
   - MEA 485 (F) – Intro to Hydrogeology
   - MEA 473 (F) – Chemical Oceanography
   - GIS 510 (F/S) – Fundamentals of Geospatial Information Science and Technology[2]
   - GIS 512 – Introduction to Environmental Remote Sensing
   - GIS 521 – Surface Water Hydrology with GIS
   - FOR 353 – Air Photo Interpretation and Photogrammetry
   - MA 305 (F/S) - Linear Algebra
   - MA 427 (F) – Introduction to Numerical Analysis I
   - ST 421 (F/S) – Introduction to Mathematical Statistics I
   - ST 371 (F/S) – Introduction to Probability and Distribution Theory[3]
   - ST 372 (F/S) – Introduction to Statistical Inference and Regression
   - ARE 336 (F/S) – Introduction to Resource and Environmental Economics
   - ENG 331 (F/S) – Communication for Engineering and Technology
   - ENG 333 (F/S) – Communication for Science and Research

[1] This course is a Maymester study abroad course – please visit the Study Abroad office for more details.
[2] GIS 510 can only be taken if students take TDE 220 as the graphics elective
[3] Students pursuing a Statistics minor may take ST 371 and ST 372 in place of ST 370 and ST 421.

- ARC 521 (F) – Daylighting and Passive Energy Systems for Architecture
- ARC 522 (F) –Building Energy Efficiency & Renewable Energy
- ARC 523 (F/S) – Building Energy Modeling and Simulation
- ARC 590 (varies) – Special Topics in Architecture
- ECE 331 (F/S) – Principles for Electrical Engineering
- BAE 376 (S) – Watershed Assessment and Water Quality Protection
- BAE 472 (S) – Irrigation and Drainage
- BAE 473 (F) – Introduction to Surface/Water Quality Modeling
- BAE 474 (S) – Principles and Applications of Ecological Engineering
- BAE 579 (?) – Steam Channel Assessment & Restoration
- BAE 583 (S) – Ecohydraulics and River Corridor Function

**This list will be updated as Environmental, Water Resources, Coastal Engineering Faculty review and obtain approval for additional courses.*