

BS Env Engineering Undergraduate Curriculum (Catalog Year: 2017 - 2018)

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|------------------|-----------------|--|--|---|--|--|---|------------|
| FRESHMAN | Fall Semester | MATH 1551 Differential Calculus Minimum Grade C (2-0-2) | MATH 1553 Intro Linear Algebra Minimum Grade C (2-0-2) | CHEM 1310 General Chemistry Minimum Grade C (3-3-4) | CS 1371 Computing for Engineers (3-0-3) | ENGL 1101 English Comp. I (3-0-3) | HUMANITIES ELEC (3-0-3) | 0 |
| | Spring Semester | MATH 1552 Integral Calculus Minimum Grade C (4-0-4) MATH 1551 | PHYS 2211 Intro Physics I Minimum Grade C (3-3-4) MATH 1551 | CHEM 1315 Survey of Organic Chemistry (3-0-3) CHEM 1310 | ENGL 1102 English Comp. II (3-0-3) ENGL 1101 | WELLNESS ELEC APPH 1040 or APPH 1050 (2-0-2) | = 17 Hours = 16 Hours | 0 |
| SOPHOMORE | Fall Semester | MATH 2551 Multivariable Calculus (4-0-4) MATH 1552 | PHYS 2212 Intro Physics II (3-3-4) PHYS 2211 | BIOL 1510 Biological Principles (3-3-4) | COE 2001 Statics Minimum Grade C (2-0-2) MATH 1552, PHYS 2211 | CEE 2300 Env Engr Princ (3-0-3) CHEM 1310, MATH 1552, PHYS 2211 | = 17 Hours | 5 |
| | Spring Semester | MATH 2552 Differential Equations (4-0-4) MATH 1552 | EAS 2600 Earth Processes (3-3-4) | CEE 3000 Civil Engineering Systems (3-0-3) MATH 1551 | CEE 2040 Dynamics (2-0-2) COE 2001 | ECONOMICS Econ 2100, 2101, 2105, or 2106 (see Note 1) | = 16 Hours | 5 |
| JUNIOR | Fall Semester | TECH ELEC FOCUS (see Note 3) (3-0-3) | CEE 3020 Civil Engineering Materials Lab (2-3-3) COE 3001 | COE 3001 Deformable Bodies (3-0-3) MATH 2552, COE 2001 | CEE 3040 Fluid Mechanics (3-0-3) CEE 2040, MATH 2551 | SOC SCIENCE ELEC (see Note 2) (3-0-3) | = 15 Hours | 12 |
| | Spring Semester | CEE/ISYE 3770 Statistics & Applications (3-0-3) MATH 2551 | CEE 3340 Env Engineering Lab (2-3-3) CEE 2300, BIOL 1510 | PHYS CHEM I CHBE 2110, CHEM 3411 EAS 3603, ME 3322 (3-0-3) Course Specific | CEE 4200 Hydraulic Engineering (2-3-3) CEE 3040 | TECH ELEC FOCUS (see Note 3) (3-0-3) | = 15 Hours | TBD |
| SENIOR | Fall Semester | CEE 4XXX EnvE Tech Elect (see Note 4) (3-0-3) | TECH ELEC FOCUS (see Note 3) (3-0-3) | TECH ELEC FOCUS (see Note 3) (3-0-3) | APPROVED ELEC (see Note 6) (3-0-3) | U.S. Constitution/Hist Social Science (See Note 7) (3-0-3) | HUMANITIES ELEC Ethics Requirement (See Note 8) (3-0-3) | TBD |
| | Spring Semester | CEE 4XXX EnvE Design Elect (see Note 5) (3-0-3) | CEE 4090 Capstone Design (2-3-3) Senior Status | TECH ELEC FOCUS (see Note 3) (3-0-3) | APPROVED ELEC (see Note 6) (3-0-3) | SOC SCIENCE ELEC (see Note 2) (3-0-3) | = 18 Hours = 15 Hours | TBD |

Required Degree Hours = 129 / Engineering Hours = 52 (see Note 10)

This is not an official record. Verify course requirements through GT catalog.

1. Students can receive credit for only one of ECON 2100, ECON 2101, ECON 2105, or ECON 2106.

The only exception is that students can receive 6 hours credit for both ECON 2105 and ECON 2106.

2. Humanities Electives and Social Science Electives. See Page 2 for a link to the list of classes.

3. See Page 2 for list of classes.

4. CEE 4210 or CEE 4405 or CEE 4620 or CEE 4795.

5. CEE 4310 or CEE 4320 or CEE 4330 or CEE 4395.

6. Approved Electives. Maximum 3 hrs CEE 2699. MATH 1113, PHYS 2802, one-hour MUSI courses, GT 1000, and FREE XXXX are not allowed.

7. HIST 2111 or HIST 2112 or INTA 1200 or POL 1101 or PUBP 3000. Cannot use credit for both INTA 1200 and POL 1101.

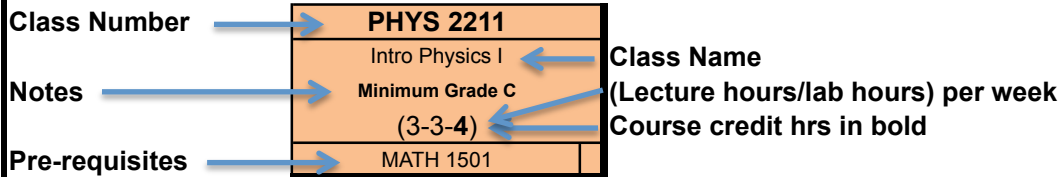
8. Ethics Requirement. PHIL 4176 (recommended) or PHIL 3105 or PHIL 3109 or PHIL 3127.

9. Overlay Area: A course in Global Perspectives must be taken as part of the curriculum. It can be an Approved Elective, Humanities, Economics, Humanities, or Social Science Elective. See page 2 for link to list of classes.

10. Engineering credit hours must total 52. 40 hours are set. Remaining 12 hours to be chosen from Phys Chem I, Tech Elec Focus and/or Approved Elec).

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| REQUIRED Overlay |
| Global Perspectives |
| Removed |
| Spring 2016 |

Undergraduate EnvE Curriculum Notes



The pre-requisite must be completed before you can take this class
 A co-requisite can be taken in the same semester or before the class.

EnvE has a minimum 5 semester prerequisite chain - plan your courses carefully!

GPA & Grade Requirements

1. All classes taken for BSEnvE must be taken LETTER GRADE. No Pass/Fail.
2. **Overall GPA:** Must be 2.00 or above at graduation.
3. **Required grades:**
 -Minimum grade of D or better is required except as noted.
4. **Major GPA:**
 -Must be 2.00 or above at graduation.
 -Classes used to calculate major GPA include those with CEE prefix.

Humanities, Social Science, and Overlay Requirements (Ethics and Global Perspectives)

1. **Humanities Electives:** The current list can be found at: <http://catalog.gatech.edu/students/ugrad/core/corec.php>
2. **Social Science Electives:** The current list can be found at: <http://catalog.gatech.edu/students/ugrad/core/coree.php>
3. **Ethics Overlay:** PHIL 4176 (recommended) or PHIL 3105 or PHIL 3109 or PHIL 3127.
4. **Global Perspectives Overlay:** <http://catalog.gatech.edu/students/ugrad/core/gp.php>

CEE Technical Elective Focus Area

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|-----------|------------------------------|---|--------------------------|
| BIOL 2335 | Ecology | CEE 4803 | Special Topics |
| BIOL 3380 | Intro Microbiology | CEE 6XXX | Graduate Courses |
| BIOL 4010 | Aquatic Ecology | CHBE 3200 | Transport Processes I |
| BIOL 4430 | Environmental Sustainability | CHEM 3281 | Instrumental Analysis |
| BMED 3400 | Intro Biomechanics | CHEM 3511 | Survey Biochemistry |
| BMED 4757 | Biofluid Mechanics | CHEM 4740 | Atmospheric Chem |
| BMED 4758 | Biosolid Mechanics | CP 4210 | EnvE Impact Assess |
| CEE 3010 | Geomatics | CP 4510 | GIS |
| CEE 4100 | Construction Engr & Mgt | EAS 4110 | Resources, Energy, Env |
| CEE 4210 | Hydrology | EAS 4300 | Oceanography |
| CEE 4225 | Coastal Engineering | EAS 4410 | Climate Change |
| CEE 4230 | EnvE Transport Modeling | EAS 4420 | EnvE Field Methods |
| CEE 4300 | EnvE Systems | EAS 4430 | Remote Sensing |
| CEE 4310 | Water Quality Engineering | EAS 4480 | EnvE Data Analysis |
| CEE 4320 | Hazard Substance Engr | EAS 4610 | Earth Systems Model |
| CEE 4330 | Air Pollution Engineering | EAS 4625 | Water Quality Model |
| CEE 4395 | EnvE Systems Design | EAS 4740 | Atmospheric Chem |
| CEE 4405 | Geotechnical Engineering | ECE 3710 | Circuits and Electronics |
| CEE 4420 | Subsurface Characterization | ECE 3741 | Instrumentation Lab |
| CEE 4430 | EnvE Geotech | ME 4171 | EnvE Conscious Dsgn |
| CEE 4600 | Transportation Plan | ME 4172 | Design Sustain Engr Sys |
| CEE 4620 | EnvE Impact Assess | ME 4782 | Biosystems Analysis |
| CEE 4795 | Ground Water Hydro | Note: Additional courses may be considered by the faculty. | |
| CEE 4699 | Undergrad Research | | |

Approved Electives

Up to 3 hours of VIP credit can be used as Technical Elective Focus Area; after earning those 3 credits, any additional VIP credits can be used only as approved elective credits.