BS Env Engineering Undergraduate Curriculum (Catalog Year: 2015 - 2016)

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

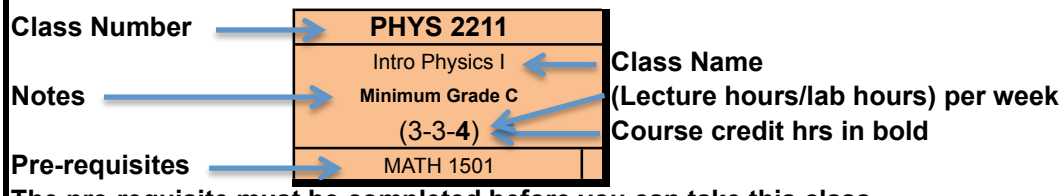
Required Degree Hours = 129 / Engineering Hours = 52 (see Note 10)

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).**

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

BIOL 2335	Ecology		CEE 4803	Special Topics
BIOL 3380	Intro Microbiology		CEE 6XXX	Graduate Courses
BIOL 4010	Aquatic Ecology		CHBE 3200	Tranport 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	Intsrumentation 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.