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

FRESHMAN		MATH 1551	MATH 1553	CHEM 1310	CS 1371	ENGL 1101	U.S. Constitution/Hist
	ster	Differential Calculus	Intro Linear Algebra	General Chemistry	Computing	English Comp. I	Social Science
	Fall Semester	Minimum Grade C	Minimum Grade C	Minimum Grade C	for Engineers	English Comp. 1	(See Note 7)
	all S	(2-0- <b>2</b> )	(2-0 <b>-2</b> )	(3-3-4)	(3-0 <b>-3</b> )	(3-0 <b>-3</b> )	(3-0 <b>-3</b> )
	"	(Z-0- <b>Z</b> )	(2-0-2)	(0-0-4)	(5-0- <b>3</b> )	(5-5-5)	(5-5-5)
S							
띪	.e.	MATH 1552	PHYS 2211	CEE 1770	ENGL 1102	HUMANITIES ELEC	= 17 Hours
正	mest	Integral Calculus	Intro Physics I	Intro to	English Comp. II		= 15 Hours
	g Se	Minimum Grade C	Minimum Grade C	Engineering Graphics			
	Spring Semester	(4-0-4)	(3-3-4)	(2-3- <b>3</b> )	(3-0-3)	(3-0 <b>-3</b> )	
		MATH 1551	MATH 1551		ENGL 1101		
SOPHOMORE		MATU OFF4	DUVO 0040	FOONOMICO	005 0004	055 0000	
	le l	MATH 2551	PHYS 2212	ECONOMICS	COE 2001	CEE 2300	- 4C Harre
	mes	Multivariable Calculus	Intro Physics II	Econ 2100, 2101,	Statics Minimum Grade C	Env Engr Princ	= 16 Hours
	Fall Semester	(4.0.4)	(2.2.4)	2105, or 2106		(3-0- <b>3</b> )	
	ш.	(4-0- <b>4</b> )	(3-3- <b>4</b> )	(see Note 1) (3-0-3)	(2-0- <b>2</b> ) MATH 1552, PHYS 2211	CHEM 1310, MATH 1552, PHYS 2211	
		MATH 1552	PHYS 2211		MATH 1552, PHYS 2211	MATH 1552, PHYS 2211	
	<u>.</u>	MATH 2552	Science Elective	CEE 3000	CEE 2040	HUMANITIES ELEC	
	Semester	Differential	BIOL 1510, 1520,	Civil Engineering	Dynamics	Ethics Requirement	= 16 Hours
	g Se	Equations	or EAS 2600	Systems		(See Note 8)	
	Spring	(4-0-4)	(3-3-4)	(3-0- <b>3</b> )	(2-0- <b>2</b> )	(3-0- <b>3</b> )	
		MATH 1552	Course Specific	MATH 1551	COE 2001		
		COE Tech Elect	CEE 3020	COE 3001	CEE 3040	SOC SCIENCE ELEC	WELLNESS ELEC
	ter					OCC GOILINGE ELLO	
	emester	MSE 3001, ME 3322,	Civil Engineering	Deformable	Fluid Mechanics		APPH 1040
OR.	-all Semester	MSE 3001, ME 3322, or CHBE 2110	Civil Engineering  Materials Lab	Deformable Bodies	Fluid Mechanics	(see Note 2)	APPH 1040 or APPH 1050
NIOR	Fall Semester	MSE 3001, ME 3322, or CHBE 2110 (3-0-3)	Civil Engineering Materials Lab (2-3-3)	Deformable Bodies (3-0-3)	Fluid Mechanics (3-0-3)		APPH 1040
JUNIOR	Fall Semester	MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific	Civil Engineering  Materials Lab  (2-3-3)  COE 3001	Deformable  Bodies (3-0-3)  MATH 2552, COE 2001	(3-0-3) CEE 2040, MATH 2551	(see Note 2) (3-0-3)	APPH 1040 or APPH 1050 (2-0-2)
JUNIOR		MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific	Civil Engineering Materials Lab (2-3-3)	Deformable Bodies (3-0-3)	Fluid Mechanics (3-0-3)	(see Note 2) (3-0-3)  CEE Breadth Lab	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours
JUNIOR		MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics &	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec	Deformable Bodies (3-0-3) MATH 2552, COE 2001  CEE Breadth Elec	(3-0-3) CEE 2040, MATH 2551 CEE Breadth Elec	(see Note 2) (3-0-3) CEE Breadth Lab CEE4200 or 4405	APPH 1040 or APPH 1050 (2-0-2)
JUNIOR		MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics & Applications	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec (See Note 3)	Deformable Bodies (3-0-3) MATH 2552, COE 2001  CEE Breadth Elec (See Note 3)	Fluid Mechanics (3-0-3) CEE 2040, MATH 2551  CEE Breadth Elec (See Note 3)	(see Note 2) (3-0-3) CEE Breadth Lab CEE4200 or 4405 (See Note 4)	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours
JUNIOR	Spring Semester Fall Semester	MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics & Applications (3-0-3)	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec (See Note 3) (3-0-3)	Deformable Bodies (3-0-3) MATH 2552, COE 2001  CEE Breadth Elec  (See Note 3) (3-0-3)	(3-0-3) CEE 2040, MATH 2551 CEE Breadth Elec (See Note 3) (3-0-3)	(see Note 2) (3-0-3) CEE Breadth Lab CEE4200 or 4405 (See Note 4) (2-3-3)	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours
JUNIOR		MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics & Applications	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec (See Note 3)	Deformable Bodies (3-0-3) MATH 2552, COE 2001  CEE Breadth Elec (See Note 3)	Fluid Mechanics (3-0-3) CEE 2040, MATH 2551  CEE Breadth Elec (See Note 3)	(see Note 2) (3-0-3) CEE Breadth Lab CEE4200 or 4405 (See Note 4)	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours
JUNIOR		MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics & Applications (3-0-3) MATH 2551	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec  (See Note 3) (3-0-3) Course Specific	Deformable Bodies (3-0-3) MATH 2552, COE 2001  CEE Breadth Elec  (See Note 3) (3-0-3) Course Specific	CEE Breadth Elec  (See Note 3) (3-0-3)  Course Specific	(see Note 2) (3-0-3)  CEE Breadth Lab  CEE4200 or 4405 (See Note 4) (2-3-3)  Course Specific	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours
JUNIOR	Spring Semester	MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics & Applications (3-0-3)	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec (See Note 3) (3-0-3)	Deformable Bodies (3-0-3) MATH 2552, COE 2001  CEE Breadth Elec  (See Note 3) (3-0-3)	(3-0-3) CEE 2040, MATH 2551 CEE Breadth Elec (See Note 3) (3-0-3)	(see Note 2) (3-0-3) CEE Breadth Lab CEE4200 or 4405 (See Note 4) (2-3-3)	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours = 15 Hours
	Spring Semester	MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics & Applications (3-0-3) MATH 2551  CEE Technical Elec	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec (See Note 3) (3-0-3) Course Specific  CEE Technical Elec	Deformable Bodies (3-0-3) MATH 2552, COE 2001  CEE Breadth Elec  (See Note 3) (3-0-3) Course Specific  CEE Technical Elec	Fluid Mechanics  (3-0-3)  CEE 2040, MATH 2551  CEE Breadth Elec  (See Note 3) (3-0-3)  Course Specific  CEE Technical Elec	(see Note 2) (3-0-3)  CEE Breadth Lab CEE4200 or 4405 (See Note 4) (2-3-3) Course Specific  APPROVED ELEC	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours
		MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics & Applications (3-0-3) MATH 2551	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec  (See Note 3) (3-0-3) Course Specific	Deformable Bodies (3-0-3) MATH 2552, COE 2001  CEE Breadth Elec (See Note 3) (3-0-3) Course Specific  CEE Technical Elec (See Note 5)	(3-0-3) CEE 2040, MATH 2551  CEE Breadth Elec  (See Note 3) (3-0-3) Course Specific  CEE Technical Elec  (See Note 5)	(see Note 2) (3-0-3)  CEE Breadth Lab CEE4200 or 4405 (See Note 4) (2-3-3) Course Specific  APPROVED ELEC (see Note 6)	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours = 15 Hours
	Spring Semester	MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics & Applications (3-0-3) MATH 2551  CEE Technical Elec (See Note 5)	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec (See Note 3) (3-0-3) Course Specific  CEE Technical Elec (See Note 5)	Deformable Bodies (3-0-3) MATH 2552, COE 2001  CEE Breadth Elec  (See Note 3) (3-0-3) Course Specific  CEE Technical Elec	Fluid Mechanics  (3-0-3)  CEE 2040, MATH 2551  CEE Breadth Elec  (See Note 3) (3-0-3)  Course Specific  CEE Technical Elec	(see Note 2) (3-0-3)  CEE Breadth Lab CEE4200 or 4405 (See Note 4) (2-3-3) Course Specific  APPROVED ELEC	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours = 15 Hours
SENIOR JUNIOR	Spring Semester	MSE 3001, ME 3322, or CHBE 2110 (3-0-3)  Course Specific  CEE/ISYE 3770  Statistics & Applications (3-0-3)  MATH 2551  CEE Technical Elec  (See Note 5) (3-0-3)  Course Specific	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec  (See Note 3) (3-0-3) Course Specific  CEE Technical Elec  (See Note 5) (3-0-3) Course Specific	Deformable Bodies (3-0-3)  MATH 2552, COE 2001  CEE Breadth Elec  (See Note 3) (3-0-3)  Course Specific  CEE Technical Elec  (See Note 5) (3-0-3)  Course Specific	(3-0-3)  CEE 2040, MATH 2551  CEE Breadth Elec  (See Note 3) (3-0-3)  Course Specific  CEE Technical Elec  (See Note 5) (3-0-3)  Course Specific	(see Note 2) (3-0-3)  CEE Breadth Lab CEE4200 or 4405 (See Note 4) (2-3-3) Course Specific  APPROVED ELEC (see Note 6) (3-0-3)	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours = 15 Hours
	Fall Semester Spring Semester	MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics & Applications (3-0-3) MATH 2551  CEE Technical Elec (See Note 5) (3-0-3)	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec (See Note 3) (3-0-3) Course Specific  CEE Technical Elec (See Note 5) (3-0-3)	Deformable Bodies (3-0-3)  MATH 2552, COE 2001  CEE Breadth Elec  (See Note 3) (3-0-3)  Course Specific  CEE Technical Elec  (See Note 5) (3-0-3)  Course Specific  CEE 4090	(3-0-3)  CEE 2040, MATH 2551  CEE Breadth Elec  (See Note 3) (3-0-3)  Course Specific  CEE Technical Elec  (See Note 5) (3-0-3)	(see Note 2) (3-0-3)  CEE Breadth Lab CEE4200 or 4405 (See Note 4) (2-3-3) Course Specific  APPROVED ELEC (see Note 6)	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours = 15 Hours
	Fall Semester Spring Semester	MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics & Applications (3-0-3) MATH 2551  CEE Technical Elec (See Note 5) (3-0-3) Course Specific	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec (See Note 3) (3-0-3) Course Specific  CEE Technical Elec (See Note 5) (3-0-3) Course Specific	Deformable Bodies (3-0-3)  MATH 2552, COE 2001  CEE Breadth Elec  (See Note 3) (3-0-3)  Course Specific  CEE Technical Elec  (See Note 5) (3-0-3)  Course Specific	(3-0-3) CEE 2040, MATH 2551  CEE Breadth Elec  (See Note 3) (3-0-3) Course Specific  CEE Technical Elec  (See Note 5) (3-0-3) Course Specific	(see Note 2) (3-0-3)  CEE Breadth Lab CEE4200 or 4405 (See Note 4) (2-3-3) Course Specific  APPROVED ELEC (see Note 6) (3-0-3)  SOC SCIENCE ELEC	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours = 15 Hours
	Fall Semester Spring Semester	MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics & Applications (3-0-3) MATH 2551  CEE Technical Elec (See Note 5) (3-0-3) Course Specific  CEE Technical Elec (See Note 5)	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec (See Note 3) (3-0-3) Course Specific  CEE Technical Elec (See Note 5) (3-0-3) Course Specific  CEE Technical Elec (See Note 5)	Deformable Bodies (3-0-3) MATH 2552, COE 2001  CEE Breadth Elec  (See Note 3) (3-0-3) Course Specific  CEE Technical Elec  (See Note 5) (3-0-3) Course Specific  CEE 4090 Capstone Design	(3-0-3) CEE 2040, MATH 2551  CEE Breadth Elec  (See Note 3) (3-0-3) Course Specific  CEE Technical Elec  (See Note 5) (3-0-3) Course Specific  APPROVED ELEC  (see Note 6)	(see Note 2) (3-0-3)  CEE Breadth Lab CEE4200 or 4405 (See Note 4) (2-3-3) Course Specific  APPROVED ELEC (see Note 6) (3-0-3)  SOC SCIENCE ELEC (see Note 2)	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours = 15 Hours
	Spring Semester	MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics & Applications (3-0-3) MATH 2551  CEE Technical Elec (See Note 5) (3-0-3) Course Specific  CEE Technical Elec (See Note 5) (3-0-3)	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec  (See Note 3) (3-0-3) Course Specific  CEE Technical Elec  (See Note 5) (3-0-3) Course Specific  CEE Technical Elec	Deformable Bodies (3-0-3) MATH 2552, COE 2001  CEE Breadth Elec  (See Note 3) (3-0-3) Course Specific  CEE Technical Elec  (See Note 5) (3-0-3) Course Specific  CEE 4090 Capstone Design (2-3-3)	(3-0-3) CEE 2040, MATH 2551  CEE Breadth Elec  (See Note 3) (3-0-3) Course Specific  CEE Technical Elec  (See Note 5) (3-0-3) Course Specific	(see Note 2) (3-0-3)  CEE Breadth Lab CEE4200 or 4405 (See Note 4) (2-3-3) Course Specific  APPROVED ELEC (see Note 6) (3-0-3)  SOC SCIENCE ELEC	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours = 15 Hours
SENIOR	Spring Semester Fall Semester Spring Semester	MSE 3001, ME 3322, or CHBE 2110 (3-0-3) Course Specific  CEE/ISYE 3770 Statistics & Applications (3-0-3) MATH 2551  CEE Technical Elec  (See Note 5) (3-0-3) Course Specific  CEE Technical Elec  (See Note 5) (3-0-3) Course Specific	Civil Engineering Materials Lab (2-3-3) COE 3001  CEE Breadth Elec (See Note 3) (3-0-3) Course Specific  CEE Technical Elec (See Note 5) (3-0-3) Course Specific  CEE Technical Elec (See Note 5)	Deformable Bodies (3-0-3)  MATH 2552, COE 2001  CEE Breadth Elec  (See Note 3) (3-0-3)  Course Specific  CEE Technical Elec  (See Note 5) (3-0-3)  Course Specific  CEE 4090  Capstone Design  (2-3-3)  Senior Status	(3-0-3)  CEE 2040, MATH 2551  CEE Breadth Elec  (See Note 3) (3-0-3)  Course Specific  CEE Technical Elec  (See Note 5) (3-0-3)  Course Specific  APPROVED ELEC  (see Note 6) (3-0-3)	(see Note 2) (3-0-3)  CEE Breadth Lab CEE4200 or 4405 (See Note 4) (2-3-3) Course Specific  APPROVED ELEC (see Note 6) (3-0-3)  SOC SCIENCE ELEC (see Note 2)	APPH 1040 or APPH 1050 (2-0-2) = 17 Hours = 15 Hours = 15 Hours

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. CEE Breadth Electives: Choose 3 of 6 from CEE 3055, 4100, 4200, 4300, 4405, and 4600.
- 4. CEE Breadth Lab Elective: Choose CEE 4200 or 4405.
- 5. Any 3000 level or higher CEE course with the exception of CEE 4801, CEE 8811, and CEE 8812. See additional notes on page 2.
- 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 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.

REQUIRED Overlay
Global Perspectives
Removed
Spring 2016

# Class Number PHYS 2211 Intro Physics I Notes Minimum Grade C (3-3-4) Pre-requisites MATH 1501 Undergraduate CE Curriculum Notes Class Name (Lecture hours/lab hours) per week Course credit hrs in bold

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.

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

### **GPA & Grade Requirements**

- All classes taken for BSCE 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 Requirement PHIL 3105 or PHIL 3109 or PHIL 3127.
- 4. Global Perspectives Overlay: http://catalog.gatech.edu/students/ugrad/core/gp.php

### **CEE Technical Electives**

Any 3000 level or higher CEE course with the exception of CEE 4801, CEE 8811, and CEE 8812. Maximum of 3 hours CEE 4699 and 4900.

Non-CEE courses allowed are: COA 4010, CP 4010, CP 4020, CP 4310, and CP 4510.

# **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.