

ME Undergraduate Curriculum (Catalog: 2010 - 2011)

Freshman	Fall	CHEM 1310 General Chemistry (See Note 4) 3-3-4	MATH 1501 Calculus 1 (Minimum Grade C) 4-0-4	HISTORY HIST 2111, HIST 2112, POL 1101, INTA 1200, or PUBP 3000 (Social Sci, See back page) 3-0-3	Wellness APPH 1040, APPH 1050 or HPS 1040 2-0-2	ENGL 1101 English Composition 1 [Humanities] 3-0-3	= 16 hours
	Spring	PHYS 2211 Physics 1 3-3-4 MATH 1501	MATH 1502 Calculus 2 (Minimum Grade C) 4-0-4 MATH 1501	CS 1371 Introduction to Computing 3-0-3	ME/CEE 1770 Engineering Graphics (See Note 6, No W's) 2-3-3	ENGL 1102 English Composition 2 [Humanities] 3-0-3 ENGL 1101	
Sophomore	Fall	PHYS 2212 Physics 2 3-3-4 PHYS 2211	MATH 2401 Calculus 3 (Minimum Grade C) 4-0-4 MATH 1502	ME 2110 Creative Decisions and Design (See Note 6, No W's) 2-3-3 ME/CEE 1770, COE 2001*	MSE 2001 Engineering Materials 3-0-3 CHEM 1310	COE 2001 Statics 2-0-2 MATH 1502, PHYS 2211	= 16 hours
	Spring	ECE 3710 Circuits & Electronics 2-0-2 PHYS 2212	MATH 2403 Differential Equations (Minimum Grade C) 4-0-4 MATH 1502	ME 2202 Dynamics of Rigid Bodies 3-0-3 COE 2001	ME 2016 Computing Techniques 3-0-3 CS 1371, MATH 1502, MATH 2403*	Science Elect. CHEM 1311, PHYS 2213, BIOL 1510, BIOL 1520, EAS 1600 or EAS 1601 (See Note 4) X-X-3	= 15 hours = 16 hours
Junior	Fall	ECE 3741 Instrument & Electronics Lab 0-3-1 ECE 3710	COE 3001 Mechanics of Deformable Bodies 3-0-3 COE 2001, MATH 2403*	ME 3322 Thermo- dynamics 3-0-3 PHYS 2211, MATH 2403	ME 3340 Fluid Mechanics 3-0-3 ME 2202, MATH 2401, MATH 2403, ME 3322*	Economics ECON 2100, 2101, 2105, or 2106 [Social Science] (See Note 5) 3-0-3	Social Science Elective 3-0-3
	Spring	ME 3017 System Dynamics 3-0-3 ME 2202, ME 2016, MATH 2403, ECE 3710	ME 3345 Heat Transfer 3-0-3 ME 3322, ME 3340, MATH 2403	MATH 3670 Statistics (ISYE 3770 is also accepted) 3-0-3 MATH 2401	ISYE 3025 Engineering Economics 1-0-1 (ECON 2100, 2101, 2105 or 2106)	Ethics HTS 2084, INTA 2030, PHIL 3105, PHIL 3109, PHIL 3127 or PHIL 4176 (See Notes 1 & 3) 3-0-3	Humanities Elective 3-0-3
Senior	Fall	Design Elective ME 3180 or ME 4315 (3180: Machine Design, 4315: Energy Sys Dsgn) 3-0-3 ME 2110, ME 3345 (for ME 4315 only), COE 3001 (for ME 3180 only)	ME 3210 Design, Materials & Manufacture 3-0-3 MSE 2001, ME 2110	ME 3057 Experimental Methods Lab (See Note 6, No W's) 2-3-3 COE 3001, ME 3340, ME 3015*, ME 3345*, MATH 3670*	ME Elective 3000 Level or Above ME Class (See Notes 2, 7 & back page) 3-0-3	Free Elective 2000 Level or Above (See Note 7) 3-0-3	= 17 hours = 15 hours
	Spring	ME 4056 ME Systems Lab (See Note 6, No W's) 2-3-3 ME 3017, ME 3057, ME 3345, MATH 3670	ME 4182 Capstone Design (See Note 6, No W's) 1-6-3 COE 3001, ME 3345, ME 2110, ME 3210, Design, ME 3017, MATH 3670	ME Elective 3000 Level or Above ME Class (See Notes 2, 7 & back page) 3-0-3	Social Science or Humanities Elective (See Note 3) 3-0-3	Free Elective 2000 Level or Above (See Note 7) 3-0-3	= 14 hours

NOTES:

- Ethics** - PHIL 3105, 3109, 3127 & 4176 are humanities (HUM). HTS 2084 & INTA 2030 are social sciences (SS).
 - ME Electives** are any 3000 level ME class or above, excluding ME 3141, 3720, 3743, 3744, 3753, 4741, 4742 & 4753. Students may take both design electives (ME 3180 & ME 4315); one class will be the design elective and one an ME Elective. See backside for more information about ME electives.
 - If **Ethics** is humanities, social science elective is required for the **Social Science or Humanities Elective**. If **Ethics** is social science, humanities elective is required for the **Social Science or Humanities Elective**.
 - CHEM 1211K can substitute for CHEM 1310. CHEM 1211K & 1212K are recommended for pre-health students. CHEM 1212K can substitute for the Science Elective for students who take CHEM 1211K in place of CHEM 1310.
 - Credit is awarded for only ECON 2100 or ECON 2101 or (ECON 2105 and/or ECON 2106).
 - ME 1770, 2110, 3057, 4056 & 4182 cannot be dropped after registration without documented medical reasons.
 - Free Electives & ME Electives may not duplicate any other material used for your BSME.
- * Class co-requisites have an asterick (*) after the class. These classes can be taken at the same time.

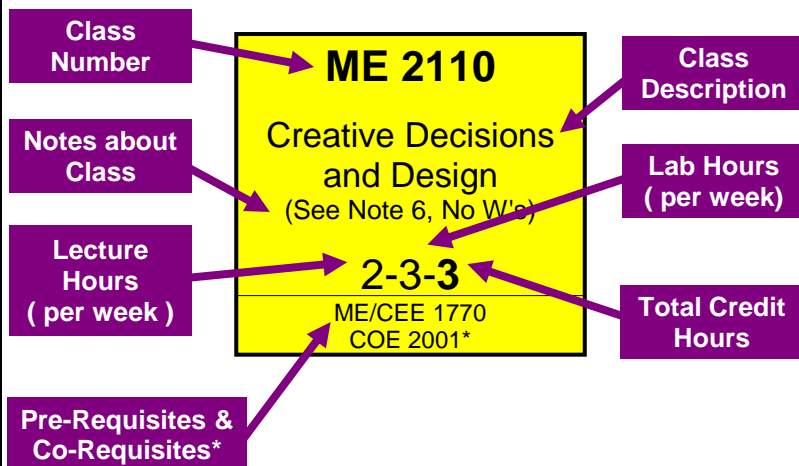
126 Total Hours

General Requirements

- All classes must be taken LETTER GRADE.
- Minimum grade of D required for each class, except as noted.
- Overall GPA must be greater than 2.00 at graduation.
- ME GPA (includes all ME and COE classes) must be greater than 2.00 at graduation.

Undergraduate Curriculum Sheet Explanation

Understanding the Curriculum Guide



Pre-requisites: These classes must be completed before you can take the class.

***Co-requisites:** These classes can be taken at the same time or before the class. You must register for the co-req first to avoid registration errors.

Core Classes

Humanities Electives (12 hours total)

- ENGL 1101 (3 hrs)
- ENGL 1102 (3 hrs)
- Humanities Elective (3 hrs)
- * Humanities Elective (3 hrs)

Social Science Electives (12 hours total)

- Economics (3 hrs) - ECON 2100, ECON 2105 or ECON 2106
- History (3 hrs) - HIST 2111, HIST 2112, **POL 1101, **INTA 1200 or PUBP 3000
- Social Science Elective (3 hrs)
- * Social Science Elective (3 hrs)

*** Note** - One humanities or social science elective must be ethics. Ethics must be selected from:

- PHIL 3105 (Humanities) PHIL 4176 (Humanities)
- PHIL 3109 (Humanities) INTA 2030 (Social Science)
- PHIL 3127 (Humanities) HTS 2084 (Social Science)

**** Note** - Credit is only awarded for one of INTA 1200 and POL 1101, not both. Classes are exactly the same.

Electives: Classes that satisfy social science electives and humanities electives can be found at:

<http://www.catalog.gatech.edu/students/ugrad/core/core.php>

ME Electives

1. **ME Electives:** A list of ME Electives (including their pre-reqs) offered each semester [can be found here](#). ME 3141, 3720, 3743, 3744, 3753, 4741, 4742 & 4753 are NOT allowed to be used for ME electives.
2. **Design Elective (ME 3180 / ME 4315):** Students may take both design electives, ME 3180 & ME 4315. One class will satisfy the design elective and the other class satisfies an ME Elective.
3. **Research:** Students may use up to 4 hours of ME 4699/4903 for ME elective credit. In addition, up to 6 hours of 2699/4699/4903 from any department may be used as free elective credit. More information about research is at: <https://www.me.gatech.edu/undergraduate/research>
4. **Minors:** Students who successfully complete a Ga. Tech minor **approved by the ME department** are allowed to substitute courses required for the minor for up to six hours of ME elective credit. If a student does not complete the minor, then this substitution is disallowed and the student must complete six hours of ME elective credit.

ME Approved Minors: Aerospace Engineering Biology	Biomedical Engineering Computing Science Earth and Atmospheric Sciences	Materials Science and Engineering Mathematics Nuclear and Radiological Engineering
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Pre-Requisites

1. **The ME curriculum has a 7 or 8 semester pre-requisite chain, depending on the design class selected.**
2. Students can select either ME 3180 or ME 4315 for the design elective. More students select ME 3180.
3. **Pre-reqs are strictly enforced in ME. Carefully plan your schedule and have it checked by an advisor.**

Upon completion of these classes, you will have a minimum of (...) semesters remaining until graduation.

Machine Design (ME 3180) for the Design Elective	Minimum # of Semesters	Energy Systems Design (ME 4315) for the Design Elective
	7	MATH 1501
MATH 1501	6	MATH 1502, PHYS 2211
MATH 1502, PHYS 2211	5	COE 2001
COE 2001	4	ME 2202, MATH 2401, MATH 2403
MATH 2401, MATH 2403, PHYS 2212, ME 2202, CS 1371, ME 1770, CHEM 1310	3	ME 1770, ME 3322, ME 3340, CS 1371, PHYS 2212, CHEM 1310
ME 2110, ME 3322, ME 3340, ME 2016 ECE 3710, COE 3001, MSE 2001	2	COE 3001, ME 2110, ME 3345, ME 2016, ECE 3710, MSE 2001
ME 3180 , ME 3057, ME 3345, ME 3017 ME 3210, MATH 3670	1	ME 4315 , ME 3017, ME 3057, ME 3210, MATH 3670
ME Elect, ME 4182, ME 4056, ECE 3741, ISYE 3025	0	ME Elect, ME 4182, ME 4056, ISYE 3025, ECE 3741