

MECHANICAL ENGINEERING

Courses highlighted below are available at University of North Georgia

Curriculum Example*

FRESHMAN YEAR

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| _____ 4 CH 1010 General Chemistry | _____ 3 ENGR 1410 Programming and Problem Solving ³ |
| _____ 3 ENGL 1030 Accelerated Composition | _____ 2 ENGR 2080 Engr. Graphics and Machine Design |
| _____ 2 ENGR 1020 Engineering Discipline and Skills ¹ | _____ 4 MATH 1080 Calculus of One Variable II |
| _____ 4 MATH 1060 Calculus of One Variable I | _____ 3 PHYS 1220 Physics with Calculus I |
| _____ 3 Gen Ed ² | _____ 1 PHYS 1240 Physics Lab. I |
| 16 | _____ 3 Gen Ed ² |
| | 16 |

SOPHOMORE YEAR

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|---|---|
| _____ 1 ME 2000 Sophomore Seminar | _____ 2 ECE 2070 Basic Electrical Engineering |
| _____ 5 ME 2010 Statics and Dynamics for Mech. Engr. | _____ 1 ECE 2080 Basic Electrical Engineering Lab. |
| _____ 2 ME 2220 Mechanical Engineering Lab. I ⁴ OR | _____ 3 ME 2030 Found. Of Thermal and Fluid Systems |
| _____ 3 MSE 2100 Intro. to Materials Science ⁴ | _____ 3 ME 2040 Mechanics of Materials |
| _____ 4 MATH 2060 Calculus of Several Variables | _____ 2 ME 2220 Mechanical Engineering Lab. I ⁴ OR |
| _____ 3 PHYS 2210 Physics with Calculus II | _____ 3 MSE 2100 Intro. to Materials Science ⁴ |
| 15-16 | _____ 4 MATH 2080 Int. to Ordinary Differential Eqtns |
| | 15-16 |

JUNIOR YEAR

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| _____ 3 ENGL 3140 Technical Writing ⁵ | _____ 3 ME 3040 Heat Transfer |
| _____ 3 ME 3030 Thermodynamics | _____ 3 ME 3050 Model. and Analysis of Dynamic Syst. |
| _____ 3 ME 3070 Foundations of Mechanical Systems | _____ 3 ME 3060 Fundamentals of Machine Design |
| _____ 3 ME 3080 Fluid Mechanics | _____ 3 ME 3120 Manufacturing Processes and Their Application |
| _____ 2 ME 3330 Mechanical Engineering Lab. II ⁴ OR | _____ 2 ME 3330 Mechanical Engineering Lab. II ⁴ OR |
| _____ 3 Statistics Requirement ^{4,6} | _____ 3 Statistics Requirement ^{4,6} |
| _____ 3 MATH 3650 Numerical Methods for Engineers | _____ 14-15 |
| 17-18 | |

SENIOR YEAR

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|---|---|
| _____ 3 ME 4010 Mechanical Engineering Design | _____ 1 ME 4000 Senior Seminar |
| _____ 3 ME 4030 Control & Integration of Multi-Domain Dynamic Systems | _____ 3 ME 4020 Internship in Engineering Design |
| _____ 2 ME 4440 Mechanical Engineering Lab. III ⁴ OR | _____ 2 ME 4440 Mechanical Engineering Lab. III ⁴ OR |
| _____ 3 Technical Requirement ^{4,7} | _____ 3 Technical Requirement ^{4,7} |
| _____ 3 Mech. Engr. Professional Requirement ⁸ | _____ 6 Gen Ed ² |
| _____ 3 Mech. Engr. Technical Requirement ⁹ | _____ 3 Mech. Engr. Technical Requirement ⁹ |
| 14-15 | 15-16 |
| 125 Total Semester Hours | |

Footnotes:

- ¹ ENGR 1050 and ENGR 1060 may be substituted for ENGR 1020
- ² See Policy on Humanities and Social Sciences for Engineering Curricula. Six of these credit hours must also satisfy General Education Cross-Cultural Awareness and Science and Technology in Society Requirements. These requirements may be filled in any order.
- ³ ENGR 1070, ENGR 1080 and ENGR 1090 may be substituted for ENGR 1410
- ⁴ Both are required but may be taken in either semester.
- ⁵ ROTC students only may substitute AS 4100 or ML 4020.
- ⁶ Select MATH 3020 or STAT 4110
- ⁷ Select from BE 4240, BE 4400, BIOE 4350, CH 3310, CH 3600, CH 4040, CH 4250, ECE 4700, ECE 4710, EES 4010, EES 4100, EES 4300, IE 4400, IE 4570, IE 4620, IE 4880, MATH 4000, MATH 4100, MATH 4120, MATH 4190, MATH 4340, MATH 4350, MATH 4400, MATH 4530, MATH 4600, MATH 4630, PHYS 3110, PHYS 3210, PHYS 3550, PHYS 4170, PHYS 4200, PHYS 4320, PHYS 4410, PHYS 4520
- ⁸ Select any course that meets the technical requirement (any course listed in footnote 7 or 9); or any 3000- or 4000-level modern language course; or a minor requirement.
- ⁹ Select from ME 4150*, ME 4170, ME 4180, ME 4200, ME 4210, ME 4220, ME 4230, ME 4250, ME 4260, ME 4280, ME 4290, ME 4300, ME 4310, ME 4320, ME 4400, ME 4530, ME 4540, ME 4550, ME 4570, ME 4710 or ME 4930. *ME 4150 may only be taken once for technical elective credit.

Once a student begins coursework at Clemson, the following courses may NOT be transferred to Clemson for the ME degree:

ME 2010, ME 2030, ME 2040

*See catalog for current curriculum at catalog.clemson.edu

| General Education Requirements | | | | | | |
|--------------------------------|------------------|--------|---------|------|------|------------|
| LIT | Non-Lit | SS1 | SS2 | CCA | STS | |
| Other | | | | | | |
| LIFE | Palmetto Fellows | Honors | Athlete | RiSE | ROTC | Med School |
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Comments: