

## UNC-Charlotte Mechanical Engineering

(Unofficial Community Colleges to UNC-Charlotte)

Degree Earned: UNC-Charlotte Bachelor of Science – Mechanical Engineering

Transfer GPA = 3.0

Effective: 2017

Grey Highlighted Courses – Take Courses at UNC-Charlotte

### FRESHMAN YEAR

Com College	Fall Semester	Credit	Com College	Spring Semester	Credit
EGR 150	ENGR 1201 Engr Practice and Principles I	2	UNC-C	ENGR 1202 Engr Practice and Principles II	2
CHM 151	CHEM 1251 Principles of Chemistry	3	PHY 251	PHYS 2101 Physics I	3
CHM 151	CHEM 1251L Chemistry Laboratory	1	PHY 251	PHYS 2101L Physics I Lab	1
MAT 271	MATH 1241 Calculus I	3	MAT 272	MATH 1242 Calculus II	3
BIO 111/CHM 152	Science Elective	3	ENG 112	UWRT 1103 or UWRT 1104 Writing & Inquiry in Academic Contexts	3 or 4
ART 111, 114, 115, MUS 110	LBST 1100 series: Arts and Society	3	Soc Sci	LBST 2101	3
15			15		

### SOPHOMORE YEAR

Com College	Fall Semester	Credit	Com College	Spring Semester	Credit
PHY 252	PHYS 2102 Physics II	3	UNC-C	MEGR 2180 Manufacturing Systems	3
PHY 252	PHYS 2102L Physics II Lab	1	UNC-C	MEGR 2156 Design Project Lab I	2
EGR 220	MEGR 2141 Engr. Mechanics I	3	UNC-C	MEGR 2144 Solid Mechanics	3
MAT 285	MATH 2171 Differential Equations	3	MAT 273	MATH 2241 Calculus III	3
ECO 251	ECON 2101 Macroeconomics or 2102 Microeconomics	3	UNC-C	ECGR 2161 Basic Elec. Engr.	3
COM 231	LBST 2301 Critical Thinking and Communication for 2017	3	UNC-C	MEGR 2240 Computational Methods for Engineers	3
16			17		

### JUNIOR YEAR

Com College	Fall Semester	Credit	Com College	Spring Semester	Credit
UNC-C	MEGR 3111 Thermodynamics I	3	UNC-C	MEGR 3112 Thermodynamics II	3
UNC-C	MEGR 3121 Dynamic Systems I	3	UNC-C	MEGR 3122 Dynamic Systems II	3
UNC-C	MEGR 3161 Engr. Materials	3	UNC-C	MEGR 3116 Introduction to Heat Transfer	3
UNC-C	MEGR XXXX Mechanical Engineering Technical Elective	3	UNC-C	MEGR 3156 Design Project Lab II	2
UNC-C	MEGR 3171 Introduction to Measurement & Instrumentation	2	UNC-C	MEGR 3114 Fluid Mechanics	3
UNC-C	MEGR 3171L Instrumentation Laboratory	2	UNC-C	MEGR 3152 Mechanics & Materials Lab	2
16			16		

### SENIOR YEAR

Com College	Fall Semester	Credit	Com College	Spring Semester	Credit
UNC-C	MEGR 3X55 Senior Design I	2	UNC-C	MEGR 3X56 Senior Design II	2
UNC-C	ME Technical Elective	3	UNC-C	ME Technical Elective	3
UNC-C	MATH XXXX Math Elective	3	UNC-C	ME Technical Elective	3
UNC-C	MEGR 3221 Machine Analysis & Design	3	UNC-C	MEGR 3216 Thermal /Fluids	3
UNC-C	MEGR 3251 Thermal /Fluids Lab	2	PHI 240	LBST 2200 series: Ethical Issues & Cultural Critique	3
UNC-C	ENGR 3295 Professional Development	1			
14			14		

**UNC-Charlotte - Minimum Credit Hours Required for Graduation Mechanical Engineering**

**123-124**

Concentrations: **Energy Engineering and Motorsports Engineering**

(ME Technical Electives and Senior Design will depend on concentration)

<b>UNC-Charlotte Mechanical Engineering (continued)</b>
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\*\*Lists of technical electives, including those approved for the Motorsports Engineering Concentration and the Energy Engineering Concentration, are available in the office of the Department of Mechanical Engineering and Engineering Science. Many technical electives are offered once per year

Concentrations within the program include Motorsports Engineering and Energy Engineering. For each concentration, students take an additional one credit course and focus their technical electives and senior design work within the given area.

The Energy Engineering concentration is intended for students interested in specialized and systematic training and education in the area of power generation. Students completing the requirements described in this program will receive a special designation on their transcripts showing that they have completed the Energy Engineering concentration. Students must apply for admission and may enter the program during their sophomore or junior years only. To be admitted to the concentration, students must have completed Physics I (PHYS 2101 and 2101L), Calculus I, II, and III (MATH 1241, 1242, and 2241), and Engineering Mechanics I (MEGR 2141), all with a grade of C or above and have a minimum GPA of 3.0. In order to remain in the concentration a minimum (overall and program) GPA of 3.0 must be maintained.

The Motorsports Engineering concentration is intended for students interested in specialized and systematic training and education in the area of automotive engineering as it pertains to motorsports. Students completing the requirements described in this program will receive a special designation on their transcripts showing that they have completed the Motorsports Engineering concentration.

Students must apply for admission and may enter the program during the sophomore or junior years only.

To be admitted to the concentration students must have completed Physics I (PHYS 2101 & 2101L), Calculus I, II, and III (MATH 1241, 1242, and 2241), and Engineering Mechanics I (MEGR 2141), all with a grade of C or above and have a minimum GPA of 2.5.