

BS: Mechanical Engineering				Rev. Fall 2017	
NOTE: This 4-year plan should be used in conjunction with regular consultation with an advisor					
Required for Admission to UNCC in Mechanical Engineering	If 24 or more transfer hours		OR	If less than 24 transfer hours	
	3.0 transfer GPA			Transfer admissions requirements	
	MATH 1103, Grade of 'C' or better			AND Freshman Admissions Requirements	
See <a href="#">Transfer Requirements</a> on the Office of Undergraduate Admissions web page for more details					
Additional Requirements for Admission to the upper division in Mechanical Engineering		Not applicable			
***PLEASE NOTE: UNC Charlotte made changes to the General Education first year writing and Liberal Studies requirements effective Fall 2017; therefore, the UNC Charlotte General Education requirements and community college UGETC course alignment may vary if the associates degree is not completed. Please review your progression with your academic advisor.					
<b>Associate of Engineering</b>					
Courses in BOLD are required for the major					
UGETC -- Associate of Engineering					
Area	Prefix/Number	Course Name	Credits	UNC Charlotte Equivalent	Credits
English Composition (6 CR)					
English Composition	ENG 111	Expository Writing	3	UWRT 1101:	3
	ENG 112	Argument-Based Research	3	UWRT 1102:	3
Humanities / Fine Arts (6 CR)					
Arts: (choose <u>ONE</u> )	ART 111	Art Appreciation	3	LBST 1105	3
	ART 114	Art History Survey I		ARTH 1211 (and LBST 1105 exemption)	
	ART 115	Art History Survey II		ARTH 1212 (and LBST 1105 exemption)	
	MUS 110	Music Appreciation		LBST 1103	
	MUS 112	Introduction to Jazz		TRNF 0001 (and LBST 1103 exemption)	
Literature / Philosophy (choose <u>ONE</u> )	ENG 231	American Literature I	3	ENGL 2104 (and LBST 2212 exemption)	3
	ENG 232	American Literature II		ENGL 0001 (and LBST 2212 exemption)	
	PHI 215	Philosophical Issues		PHIL 2101 (and LBST 2211 exemption)	
	PHI 240	Introduction to Ethics		PHIL 0001 (and LBST 2211 exemption)	
	ENG 241	British Literature I		British Literature I (LBST 2212 exemption)	
	ENG 242	British Literature II		Literature Elective (LBST 2212 exemption)	
Social / Behavioral Science (6 CR)					
<b>Required Course</b>	ECO 251	Principles of Microeconomics	3	ECON 2102	3
Social / Behavioral Science (choose <u>ONE</u> )	POL 120	American Government	3	POLS 1110	3
	SOC 210	Introduction to Sociology		SOCY 1101	
	HIS 111	World Civilizations I		HIST 1120 (and LBST 2101 exemption)	
	HIS 112	World Civilizations II		HIST 1121 (and LBST 2101 exemption)	
	HIS 131	American History I		HIST 1160 (and LBST 2101 exemption)	
	HIS 132	American History II		HIST 1161 (and LBST 2101 exemption)	
Science with Lab (12 CR)					
Natural Sciences	CHM 151 + Lab	General Chemistry I + Lab	12	CHEM 1251 + Lab	12
	PHY 251 + Lab	General Physics I + Lab		PHYS 2101 + lab	
	PHY 252 + Lab	General Physics II + Lab		PHYS 2102 + lab	
Mathematics (12 CR)					
Mathematics	MAT 271	Calculus I	12	MATH 1241 (3) + lab credit (1)	12
	MAT 272	Calculus II		MATH 1242 (3) + lab credit (1)	
	MAT 273	Calculus III		MATH 2241 (3) + lab credit (1)	
UGETC Subtotal			42		42
	ACA 122	Academic Transition	1	TRNF 0001	1

Pre Major - Course					
	EGR 150	Introduction to Engineering	2	ENGR 1201	2
Additional General Education and Pre Major Elective Hours					
	BIO 111	General Biology I	15	BIOL 1110 (one option for a science elective)	15
Additional General Education and Pre Major Elective Hours (Choose a total of 15 credit Hours)	CHM 152	General Chemistry II		CHEM 1252 (one option for a science elective)	
	<b>DFT 170</b>	Engineering Graphics		ENGR 1202 (Creo or Solidworks and a project)	
	<b>EGR 220</b>	Engineering Statics		MEGR 2141	
	EGR 225	Engineering Dynamics		MEGR 3121	
	EGR 228	Introduction to Solid Mechanics		MEGR 2144	
	MAT 280	Linear Algebra		MATH 2164 (one option for a Math elective)	
	<b>MAT 285</b>	Differential Equations		MATH 2171	
Education and Pre-Major Elective Subtotal			18		18
<b>TOTAL AA Hours</b>			<b>60</b>		<b>60</b>
DFT 170 must use Creo or Solidworks and include a project. If DFT 170 and EGR 220 are not completed as part of the AE, the first semester at UNC-Charlotte will be significantly affected. Only one science elective is required. Courses in bold font are important for future progression.					
BS -- Mechanical Engineering UNC Charlotte Courses					
Courses in <b>BOLD</b> are pre-requisites for subsequent courses					
Third year					Credits
Fall	<b>MEGR 2156</b>	Design Projects Laboratory			2
	<b>MEGR 2180</b>	Manufacturing Systems			3
	<b>MEGR 2240</b>	Computational Methods for Engineerings			3
	<b>ECGR 2161</b>	Basic Electrical Engineering			3
	<b>MEGR 3121</b>	Dynamic Systems I		EGR 225 may be completed as equivalent	3
Spring	<b>MEGR 3111</b>	Thermodynamics I			3
	<b>MEGR 3161</b>	Introduction to Engineering Materials			3
	MEGR 3171	Introduction to Measurements and Instrumentation			2
	<b>MEGR 3171L</b>	Instrumentation Laboratory			2
	<b>MEGR 3114</b>	Fluid Mechanics			3
	<b>MEGR 3156</b>	Design Projects Lab II			2
Fourth year					
Fall	<b>MEGR 3152</b>	Mechanics and Materials Laboratory			2
	<b>MEGR 3251</b>	Thermal/Fluids Laboratory			2
	<b>MEGR 3255</b>	Senior Design I			2
	<b>MEGR 3116</b>	Introduction to Heat Transfer			3
	<b>MEGR 3112</b>	Thermodynamics II			3
	MEGR 3122	Dynamic Systems II		May be deferred to the final semester.	3
Spring	MEGR 3256	Senior Design II			2
	MEGR 3216	Thermal/Fluid Design			3
	MEGR 3221	Machine Analysis and Design			3
	ENGR 3295	Multidisciplinary Professional Development			1
	Technical elective	Choose from a list of approved courses			3
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Fifth year (or summer)					
	Math/STAT elective	STAT 3128 will satisfy this.			3
	Technical elective	Choose from a list of approved courses			3
	Technical elective	Choose from a list of approved courses			3
<b>TOTAL UNCC Hours</b>					<b>68</b>
<b>TOTAL HOURS</b>					<b>128</b>