

## UNC-Charlotte Systems Engineering

(Unofficial Community Colleges to UNC-Charlotte)

Degree Earned: UNC-Charlotte Bachelor of Science - Systems Engineering  
 Effective: 2017

Transfer GPA = 2.5

Grey Highlighted Courses – Take Courses at UNC-Charlotte

FRESHMAN YEAR					
Com College	Fall Semester	Credit	Com College	Spring Semester	Credit
EGR 150	ENGR 1201 Introduction to Engineering I	2	UNC-C	ENGR 1202 Introduction to Engineering II	2
BIO 111	XXXX XXXX Science Elective	3	PHY 251	PHYS 2101 Physics I	3
MAT 271	MATH 1241 Calculus I	3	PHY 251	PHYS 2101L Physics I Lab	1
ENG 111	UWRT 1103 Writing & Inquiry in Academic Contexts I	3	MAT 272	MATH 1242 Calculus II	3
ART 111, 114, 115, MUS 110	LBST 1100 series: Arts and Society	3		Elective	3
			ECO 251	ECON 1101 Economics of Social Issues	3
<b>14</b>					<b>15</b>
SOPHOMORE YEAR					
Com College	Fall Semester	Credit	Com College	Spring Semester	Credit
PHY 252	PHYS 2102 Physics II	3	UNC-C	SEGR 2105 Comp Meth for Systems Engineering I	3
PHY 252	PHYS 2102L Physics II Lab	1	UNC-C	STAT 3128 Probability & Statistics for Engineers <sup>1</sup>	3
UNC-C	SEGR 2101 Systems Engineering Concepts	3	CHM 151	CHEM 1251 Principles of Chemistry	3
MAT 273	MATH 2241 Calculus III	3	CHM 151	CHEM 1251L Chemistry Laboratory	1
MAT 280	MATH 2164 Matrices & Linear Algebra	3	COM 231	LBST 2301 Critical Thinking & Communication	3
UNC-C	SEGR 2106 Engineering Economic Analysis	3		XXXX XXXX Technical Elective	3
<b>16</b>					<b>16</b>
JUNIOR YEAR					
Com College	Fall Semester	Credit	Com College	Spring Semester	Credit
UNC-C	SEGR 3101 System Design and Deployment	3	UNC-C	SEGR 3102 System Simul. Modeling & Analysis	3
UNC-C	SEGR 3105 Comp Meth for Systems Engineering II	3	UNC-C	SEGR 3111 Project Management	3
UNC-C	SEGR 3107 Decision and Risk Analysis	3	MAT 285	MATH 2171 Differential Equations	3
UNC-C	OPRS 3111 Operations Res. – Deterministic Models	3	UNC-C	XXXX XXXX Concentration Course	3
UNC-C	XXXX XXXX Concentration Course	3	UNC-C	XXXX XXXX Technical Elective	3
<b>15</b>					<b>15</b>
SENIOR YEAR					
Com College	Fall Semester	Credit	Com College	Spring Semester	Credit
UNC-C	SEGR 3290 System Design Project I	1	UNC-C	SEGR 3291 System Design Project II	3
UNC-C	ENGR 3295 Multidisciplinary Professional Development	1	UNC-C	OPRS 3113 Operations Research: Probabilistic Models	3
UNC-C	SEGR 3670 Total Quality Systems	3	UNC-C	SEGR 4141 Engineering Experimental Design	3
UNC-C	SEGR 3114 Production Control Systems	3	PHI 240	LBST 221X Ethical Issues and Cultural Change	3
HIS 111/ 112, HUM 110, REL	LBST 2102 Global and Intercultural Connections	3	UNC-C	XXXX XXXX Concentration Course	3
UNC-C	XXXX XXXX Technical Elective	3			
UNC-C	XXXX XXXX Concentration Course	3			
<b>17</b>					<b>15</b>

**UNC-Charlotte - Minimum Credit Hours Required for Graduation in Systems Engineering**

**123**

## UNC-Charlotte Systems Engineering (continue)

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Concentration courses, technical and liberal studies electives allow flexibility for study in specific areas. Each student may design a technical elective program with his or her advisor's approval in order to achieve individual goals and follow a desired track.

BSSE students can select one of the following optional concentrations areas by the end of their sophomore year:

- 1) Engineering Management
- 2) Energy Systems

The courses that are marked as "concentration courses" in the study plan are determined on the basis of the concentration area as described.

### Track Courses

The courses that are marked as "track courses" in the study plan are determined on the basis of the concentration area as described.

Systems Engineering Track: Students enrolled in this track can take any three of the SE technical elective courses to fulfill their BSSE degree requirements.

Engineering Management Track: The following track courses should be taken by each student specializing in Engineering Management:

- SEGR 2111 Introduction to Engineering Management (3)
- SEGR 3112 Value Engineering Management (3)
- SEGR 4150 Leadership Skills for Engineers (3)

Plus one of the following

- OPER 3100 Operations Management (3)
- OPER 3204 Management of Service Operations (3)
- OPER 3208 Supply Chain Management (3)

### Energy Systems Concentrations

The students need to take the following four courses

- SEGR 4961 Introduction to Energy Systems (3)
- SEGR 4962 Energy Markets (3)
- SEGR 4963 Energy Systems Planning (3)
- SEGR 4964 Case Studies in the Energy Industry (3)

Students who are not enrolled in a concentration can take any four of the systems engineering technical elective courses to fulfill their BSSE degree requirements.

Qualified students may apply for early entry into the graduate program in Engineering Management during their junior or senior year. If accepted, students may take optional courses for graduate credit and begin work on their master's degree while completing their undergraduate degree.