

# Systems Engineering Checksheet

The Academic Plan of Study is a guide. Always confer with your Academic Advisor for your semester course plans

Common First Year (CFY)	Fall	Term(s)	Course #	Course Title	Hrs		Prerequisites	
			ENGR 13xx	Foundational ENGR Course (ENGR 1300, 1301, 1302, or 1303)*	2-3		Only 2 attempts allowed	
			ENGR 13xx	Foundational ENGR Course (ENGR 1300, 1301, 1302, or 1303)*	2-3		Only 2 attempts allowed	
			MATH 1241	Calculus*	3		Only 2 attempts allowed	Math Placement Level 4/MATH 1103
			XXXX 15xx	Gen Ed Requirement (Theme 1501, 1502, 1511/1512   Fnd Amer Demo 1575)	3			<a href="https://uge.charlotte.edu/charlotte-core/general-education-curriculum/">https://uge.charlotte.edu/charlotte-core/general-education-curriculum/</a>
		XXXX 15xx	Gen Ed Requirement (Theme 1501, 1502, 1511/1512   Fnd Amer Demo 1575)	3			<a href="https://uge.charlotte.edu/charlotte-core/general-education-curriculum/">https://uge.charlotte.edu/charlotte-core/general-education-curriculum/</a>	
	<b>Total: 14-15</b>							
	Spring	Term(s)	Course #	Course Title	Hrs		Prerequisites	
			ENGR 13xx	Foundational ENGR Course (ENGR 1300, 1301, 1302, or 1303)*	2-3		Only 2 attempts allowed	
			ENGR 13xx	Foundational ENGR Course (ENGR 1300, 1301, 1302, or 1303)*	2-3		Only 2 attempts allowed	
		MATH 1242	Calculus II*	3		Only 2 attempts allowed	MATH 1241 w/grade of C or higher	
		PHYS 2101	Physics I*	3		Only 2 attempts allowed	<i>MATH 1241, PHYS 2101L</i>	
		PHYS 2101L	Physics I Lab*	1		Only 2 attempts allowed	<i>PHYS 2101</i>	
	WRDS 1103/1104	Writing & Inquiry in Academic Contexts*	3			Note: WRDS 1104 is 4 credit hours		
<b>Total: 15-16</b>								
Second Year	Fall	Term(s)	Course #	Course Title	Hrs		Prerequisites	
			MATH 2241	Calculus III*	3		Only 2 attempts allowed	MATH 1242 w/grade of C or higher
			PHYS 2102	Physics II*	3		Only 2 attempts allowed	PHYS 2101 w/grade of C or higher
			PHYS 2102L	Physics II Lab	1		Only 2 attempts allowed	PHYS 2101L w/ grade of C or higher   <i>PHYS 2102</i>
			SEGR 2105	Computational Methods For Systems EN I*	3		Only 2 attempts allowed	ENGR 1300, ENGR 1302, & MATH 1242 w/grade of C or higher
			SEGR 2106	Engineering Economic Analysis	3		Only 2 attempts allowed	Must have at least Sophomore standing
		MATH 2164	Matrices & Linear Algebra*	3		Only 2 attempts allowed	MATH 1241 w/grade of C or higher	
	<b>Total: 16</b>							
	Spring	Term(s)	Course #	Course Title	Hrs		Prerequisites	
			SEGR 2110	Systems Engineering Concepts*	3		Only 2 attempts allowed	SEGR 2105 w/grade of C or higher
		STAT 3128	Probability & Statistics*	3		Only 2 attempts allowed	MATH 2241	
		CTCM 2530	Critical Thinking and Comm	3		Only 2 attempts allowed	WRDS 1103/1104 and at least Sophomore Standing	
		XXXX XXX	Technical Elective	3		Only 2 attempts allowed	See Degree Works for options	
	XXXX XXX	Physical Science Elective	3		Only 2 attempts allowed	See Degree Works for options		
<b>Total: 15</b>								
Third Year	Fall	Term(s)	Course #	Course Title	Hrs		Prerequisites	
			XXXX 15xx	Gen Ed Requirement (Theme 1501, 1502, 1511/1512   Fnd Amer Demo 1575)	3			<a href="https://uge.charlotte.edu/charlotte-core/general-education-curriculum/">https://uge.charlotte.edu/charlotte-core/general-education-curriculum/</a>
			SEGR 3105	Computational Methods for Systems EN II*	3		Only 2 attempts allowed	SEGR 2105 w/grade of C or higher
			SEGR 3107	Decision & Risk Analysis	3		Only 2 attempts allowed	STAT 3128 w/grade of C or higher, SEGR 2106
			SEGR 3201	Operations Research I: Deterministic Models	3		Only 2 attempts allowed	MATH 1242 & MATH 2164 both w/grade of C or higher
		XXXX XXXX	Concentration Course 1	3		Only 2 attempts allowed	See Degree Works for options	
	<b>Total: 15</b>							
	Spring	Term(s)	Course #	Course Title	Hrs		Prerequisites	
			MATH 2171	Differential Equations*	3		Only 2 attempts allowed	MATH 1242 w/grade of C or higher
			SEGR 3102	System Simulation, Modeling, & Analysis	3		Only 2 attempts allowed	STAT 3128 w/grade of C or higher
		SEGR 3111	Project Management	3		Only 2 attempts allowed	STAT 3128	
		SEGR 3202	Operations Research II: Stochastic Models	3		Only 2 attempts allowed	MATH 2164 & STAT 3128 w/grade of C or higher	
	SEGR 3110	System Design & Deployment	3		Only 2 attempts allowed	SEGR 3105 & PHYS 2102 both w/grade of C or higher		
<b>Total: 15</b>								
Fourth Year	Fall	Term(s)	Course #	Course Title	Hrs		Prerequisites	
			SEGR 3290	Systems Design Project I	2		Only 2 attempts allowed	Senior Standing in SEGR, SEGR 2110, 3110, & ENGR 1302 or SEGR 3107 all w/grade of C or higher
			ENGR 3295	Professional Development	1		Only 2 attempts allowed	Junior Standing
			SEGR 4114	Production Control Systems	3		Only 2 attempts allowed	STAT 3128 w/grade of C or higher, SEGR 3201   <i>SEGR 3202</i>
			SEGR 4141	Engineering Experimental Design	3		Only 2 attempts allowed	STAT 3128
			XXXX XXXX	Concentration Course 2	3		Only 2 attempts allowed	See Degree Works for options
		XXXX XXXX	Technical Elective 2	3		Only 2 attempts allowed	See Degree Works for options	
	<b>Total: 15</b>							
	Spring	Term(s)	Course #	Course Title	Hrs		Prerequisites	
			SEGR 3291	Systems Design Project II	2		Only 2 attempts allowed	Department Approval   SEGR 3290
		SEGR 4170	Total Quality Systems	3		Only 2 attempts allowed	STAT 3128	
		XXXX 15xx	Gen Ed Requirement (Theme 1501, 1502, 1511/1512   Fnd Amer Demo 1575)	3			<a href="https://uge.charlotte.edu/charlotte-core/general-education-curriculum/">https://uge.charlotte.edu/charlotte-core/general-education-curriculum/</a>	
		XXXX XXXX	Concentration Course 3	3		Only 2 attempts allowed	See Degree Works for options	
	XXXX XXXX	Concentration Course 4	3		Only 2 attempts allowed	See Degree Works for options		
<b>Total: 14</b>								

\* = grade of C or better is required for degree progression

Courses in *italics* can be taken as a pre or co-requisite

Course in **bold** must be taken as a co-requisite

