

### Associate of Pre-Engineering Guidesheet 2016-17

COURSE	COURSE TITLE	CREDIT	OFFERED	PREREQUISITE
<b>GE Courses</b>				
ENGL 1010	<i>Into to Academic Writing</i>	3	F/S/Su	
ENGL 2010	<i>Intermediate Writing</i>	3	F/S/Su	ENGL 1010
LM 1010	<i>Information Literacy</i>	1	F/S/Su	
CSIS 1000	<i>Intro to Computer Applications</i>	3	F/S/Su	
MATH 1210	<i>Calculus</i>	4	F/S/Su	"C" in MATH 1050 & MATH 1060
<b>Math (Choose a minimum of 12 credits)</b>				
MATH 1040	<i>Statistics</i>	4	F/S/Su	Math ACT of 23 or grade of C or better in MATH 1010
MATH 1220	<i>Calculus II</i>	4	F/S	"C" in MATH 1210 or H.S. AP Calculus
MATH 2210	<i>Calculus III</i>	4	F/S	C in MATH 1220
MATH 2250	<i>Linear Algebra &amp; Differential Equations</i>	4	F	MATH 1210 & MATH 1220
MATH 2270	<i>Linear Algebra</i>	3	F	MATH 1220
MATH 2280	<i>Differential Equations</i>	3	S	MATH 1220 & MATH 2270
MATH 3600	<i>Numerical Analysis</i>	3	S-even	MATH 2270 and working knowledge of computer language
<b>Engineering Courses (choose 20 credits)</b>				
ENGR 1010	<i>Engineering in the 21st Century</i>	3	F/S	
ENGR 1030	<i>Computer Assisted Design - SolidWorks</i>	3	F/S	
ENGR 2010	<i>Statics</i>	3	F	ENGR 1010, MATH 1210, PHYS 2210/2215
ENGR 2030	<i>Dynamics</i>	3	S	ENGR 2010
ENGR 2140	<i>Strength of Materials</i>	3	S	ENGR 2010, Co-req ENGR 2145
ENGR 2145	<i>Strength of Materials Lab</i>	1	S	Co-req ENGR 2140
CCET 2240	<i>Plane Surveying &amp; GPS</i>	2	F	MATH 1060
CCET 2245	<i>Plane Surveying &amp; GPS Lab</i>	1	F	Co-req ENGR 2240
ENGR 2250	<i>Electric Circuits</i>	3	S	MATH 2280, PHYS 2220/25, Co-req ENGR 2275
ENGR 2255	<i>Electric Circuits Lab</i>	1	S	ENGR 2010, Co-req ENGR 2270
ENGR 3000	<i>Thermodynamics</i>	3	F	PHYS 2220, MATH 2210
ENGR 3010	<i>Material Science</i>	3	F	CHEM 1210, ENGR 2140, co-req ENGR 3015
ENGR 3015	<i>Material Science Lab</i>	1	F	Co-req ENGR 3010
ENGR 3050	<i>Fluid Mechanics</i>	3	S	ENGR 3000, Co-req 3055
ENGR 3055	<i>Fluid Mechanics Lab</i>	1	S	Co-req ENGR 3050
<b>Additional Science Electives (choose 15 credits)</b>				
BIOL 1610	<i>General Biology I</i>	3	F/S/Su	Co-req BIOL 1615
BIOL 1615	<i>General Biology I Lab</i>	1	F/S/Su	Co-req BIOL 1610
BIOL 1620	<i>General Biology II</i>	3	F/S/Su	BIOL 1610/1615
BIOL 1625	<i>General Biology II Lab</i>	1	F/S/Su	
CHEM 1210	<i>Principles of Chemistry I</i>	4	F/Su	Two yrs of HS algebra or MATH 1050
CHEM 1215	<i>Principles of Chemistry I Lab</i>	1	F/Su	Co-req CHEM 1210
CHEM 1220	<i>Principles of Chemistry II</i>	4	S/Su	Minimum of "C" or better in CHEM 1210
CHEM 1225	<i>Principles of Chemistry II Lab</i>	1	S/Su	Co-req CHEM 1220
CHEM 2310	<i>Organic Chemistry</i>	4	F/Su	Minimum of "C" or better in CHEM 1220
CHEM 2315	<i>Organic Chemistry I Lab</i>	1	F/Su	
CHEM 2320	<i>Organic Chemistry II</i>	4	S/Su	Minimum of "C" or better in CHEM 2310
CHEM 2325	<i>Organic Chemistry II Lab</i>	1	S/Su	Co-req CHEM 2320
GEO 1110	<i>Physical Geology</i>	3	F	Co-req GEO 1115
GEO 1115	<i>Physical Geology Lab</i>	1	F	Co-req GEO 1110
PHYS 2210	<i>Physics for Scientists &amp; Engineers</i>	4	F/S	MATH 1210, Co-req PHYS 2215
PHYS 2215	<i>Physics for Scientists &amp; Engineers Lab</i>	1	F/S	Co-req PHYS 2210
PHYS 2220	<i>Physics for Scientist &amp; Engineers II</i>	4	F/S	PHYS 2210/15 & MATH 1220
PHYS 2225	<i>Physics for Scientist &amp; Engineers II Lab</i>	1	F/S	Co req PHYS 2220
<b>Additional Credits (Choose a minimum of 7 credits) from Math, Science or Engineering Electives</b>				