



# WESTERN CATS

**Recommended Four-Year Course Plan**  
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## SYSTEMS ENGINEERING 2022-2023

Year One			
Summer Before			
Course	Title	Units	Complete
MAT 187	Precalculus*	4	
Total		4	

Fall - Semester One			
Course	Title	Units	Complete
ENG 101	Freshman English	3	
CHM 151~	General Chemistry I	4	
MAT 220~	Calculus I with Analytic	5	
AGEC-S	Art	3	
Total		15	

Spring - Semester Two			
Course	Title	Units	Complete
ENG 102	Freshman English	3	
MAT 230~	Calculus II with Analytic	5	
CHM 152~	General Chemistry II	4	
EGR 188~	Fundamentals of EGR	4	
Total		16	

<b>Total Year 1 Credits</b>	<b>31</b>
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Year Three			
Fall- Semester Five			
Course	Title	Units	Complete
SIE 250	Intro to Sys Eng	3	
SIE 265	Eng Mngt I	3	
SIE 277	Object Oriented Design	3	
SIE 295S (Y)	Sophomore Colloquium	1	
SIE 305 (Y)	Engineering Prob & Stats	3	
EGR 251 (AWC)	Statics	3	
Total		16	

Spring- Semester Six			
Course	Title	Units	Complete
SIE 270	Math Foundations of SE	3	
SIE 321	Prob Models in Ops Res	3	
SIE 330	Eng Exper Design	3	
SIE 370 (Y)	Embedded Compt Sys	4	
Elective	Elective for minor	3	
Total		16	

<b>Total Year 3 Credits</b>	<b>32</b>
<b>Total Year 4 Credits</b>	<b>36</b>

Year Two			
Fall - Semester Three			
Course	Title	Units	Complete
MAT 241~	Calculus III	4	
PHY 121~	Physics I	4	
ECN 250	Intro to Microeconomics	3	
AGEC-S	Social Science	3	
EGR 123~	Structured Programing	3	
Total		17	

Spring - Semester Four			
Course	Title	Units	Complete
MAT 262~	Differential Equations	3	
PHY 131~	Physics II	4	
AGEC-S	General Elective	3	
AGEC-S	Humanities-WI	3	
EGR 207	Intro to Electrical EGR	3	
Total		16	

<b>Total Year 2 Credits</b>	<b>33</b>
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1 Prerequisites include MAT 187 or MAT 151 & 183 or placement testing  
 \*Course serves as pre-requisite, completion not required for degree  
 ~ Prerequisite courses for entry into UA program – MUST have 2.0 GPA

Year Four			
Fall- Semester Seven			
Course	Title	Units	Complete
SIE 457	Project Management	3	
SIE 340	Deterministic Ops Res	3	
SIE410A or 41	Human Factors or HMI	3	
SIE 454A	Sys Eng Process	3	
SIE 498A (Y)	Senior Design	3	
Elective	Elective for minor	3	
Total		18	

Spring- Semester Eight			
Course	Title	Units	Complete
SIE 431	Sim Model Analysis	3	
SIE 498B (Y)	Senior Design	3	
Elective	Elective for minor	3	
Elective	Elective for minor	3	
Elective	Elective for minor	3	
Elective	Elective for minor	3	
Total		18	

<b>AS in Engineering</b>	<b>64</b>
<b>BS Degree</b>	<b>132</b>

(Y) section meets in Yuma