Yavapai COLLEGE

AAS Applied Pre-engineering
Total Credits: 62 (68 if completing also AGEC-S)
Progression Plan

Note: Students can complete an AGEC-S while earning the AAS in Applied Pre-Engineering by completing two additional courses (one Arts/Humanities course and one Social/Behavioral Sciences course). See the highlighted summer term courses below. It is recommended that you always work with your advisor to ensure that the general education courses selected will transfer to your chosen university.

Fall Term 1 — 13 credit hours

Full Semester	Hours	Notes
• CNC 101 CNC Machine Operator	2	
• ENG 101 College Composition I College Composition or Applied Communication	3	**Prerequisites:** Satisfactory score on the English skills assessment; or a grade of "C" or better in ENG 095. Reading Proficiency.
• ELT 130 Introduction to Robotics	3	
1st 8 weeks		
• MAT 182 Precalculus (Algebra) Mathematics	3	**Prerequisite:** MAT 097 or a satisfactory score on the mathematics skills assessment.
2nd 8 weeks		
• MAT 183 Precalculus (Trigonometry) Mathematics	2	**Prerequisite:** MAT 097 or a satisfactory score on the mathematics skills assessment.
Term hours subtotal:	**13**	

Spring Term 1 — 18 credit hours

	Hours	Notes
• MAT 220 Calculus and Analytical Geometry I	5	**Prerequisite:** MAT 187 (or MAT 182 and MAT 183) or satisfactory score on mathematics skills assessment.
• ENG 102 College Composition II College Composition or Applied Communication	3	**Prerequisites:** ENG 101 or ENG 101A or ENG 103. Reading Proficiency.
• ELT 183 Digital Circuits	3	
• CNC 102 CNC Machine Setup	2	**Prerequisite:** CNC 101
• CHM 151 General Chemistry I	5	**Prerequisite:** MAT 097 or higher or two years of high school algebra. Reading Proficiency.
Term hours subtotal:	**18**	

Optional Summer Term Courses if completing the AGEC-S — 6 credit hours

	Hours	Notes
• ECN 235 Principles of Economics – Macro **OR** SOC 101 Introduction to Sociology Social and Behavioral Science	3	
• ART 200 Art History: Paleolithic Period through the Late Middle Ages Arts and Humanities	3	**Prerequisite:** ENG 101 or ENG 101A or ENG 103
Term hours subtotal:	**6**	

Fall Term 2 — 16 credit hours

Full Semester	Hours	Notes
• MAT 230 Calculus and Analytical Geometry II	5	**Prerequisite:** MAT 220
• PHY 150 Physics for Scientists and Engineers I	5	**Prerequisites:** MAT 220. One year of high school physics or PHY 111/PHY 112 is strongly recommended. Reading Proficiency.
• EGR 102 Introduction to Engineering	3	**Prerequisites:** MAT 187 or (MAT 182 and MAT 183). Reading Proficiency.
• CNC 201 Computer Aided Programming for CNC Machining	3	**Prerequisites:** CNC 101 (may be taken concurrently)
Term hours subtotal:	**16**	

Spring Term 2 — 15 credit hours

Full Semester	Hours	Notes
• PHY 151 Physics for Scientists and Engineers II	5	**Prerequisites:** MAT 230 and PHY 150. Reading Proficiency.
• CNC 202 3-D Programming and Rapid Prototyping for CNC	4	**Prerequisite:** CNC 201
1st 8 weeks		
• ECN 235 Principles of Economics – Macro **OR** PSY 101 Introductory Psychology **OR** SOC 101 Introduction to Sociology Social and Behavioral Science	3	*ECN 235 or SOC 101 can be taken if not taken during the optional summer term.
2nd 8 weeks		
• ART 200 Art History: Paleolithic Period through the Late Middle Ages **OR** ENG 210 Introduction to Rhetoric Arts and Humanities	3	*ART 200 can be taken if not taken during the optional summer term.
Term hours subtotal:	**15**	

This recommended sequence is not a binding agreement of any kind between Yavapai College and the student, but merely represents a potential curriculum which may be altered as appropriate to meet the student's academic objectives. Course availability is subject to change and all courses are not available every semester. Students should inquire each semester with their Advisor before registering to determine current requirements and possible changes to the suggested curriculum.