

COURSE SYLLABUS

Course Title:	SolidWorks		Date submitted:	4/30/2018 (18-24)
Department:	Advanced Manufacturing Technology			
Curriculum:	Technology Studies			
Course Descriptors: Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.	Course Code: (eg. ACC 101)	MFG*110	Prerequisites:	
	Course Type:	X		
	A: Clinical B: Lab D: Distance Learning I: Individual/Independent L: Lecture N: Internship M: Seminar P: Practicum U: Studio X: Combined Lecture/Lab Y: Combined Lecture/ Clinical/Lab Z: Combined Lecture/Studio		Corequisites: None	
	Elective Type:	G		
	AH: Art History E: English FA: Fine Arts FL: Foreign Language G: General HI: History HU: Humanities LAS: Liberal Arts & Sciences M: Math S: Science SS: Social Science		None	
	Credit Hours:	3		
	Developmental: (yes/no)	No	None	
	Lecture:	2		
	Clinical:	0	None	
	Lab:	1		
Studio:	0	None		
Other:	0			None
TOTAL:	3	None		
Class Maximum:	24			None
Semesters Offered:	Fall, Spring	None		
Catalog Course Description:	SolidWorks design focuses on parametric modeling while introducing the student to the paperless computer based design process utilizing the modern parametric 3-D design software SolidWorks. The course reviews the following topics: design process, design engineering, assembly modeling, mechanism analysis, rapid prototyping, team design, geometric dimensioning and tolerancing, and the analysis of tolerance stackups. Students will participate in individual & team design projects.			
Topical Outline: List course content in outline format.	1. Fundamentals of Part Modeling 2. Extrude and Revolve Feature 3. Fundamentals of Drawing 4. Sweep, Loft, Wrap & Additional Features 5. Fundamentals of Assembly Modeling			

	<p>6. Rapid Prototyping & Sheet Metal Parts</p>
<p>Outcomes: Describe measurable skills or knowledge that students should be able to demonstrate as evidence that they have mastered the course content.</p>	<p>Upon successful completion of this course, the student will be able to do the following:</p> <p>COURSE:</p> <ol style="list-style-type: none"> 1. Demonstrate a basic understanding of the fundamentals of Part Modeling. 2. Demonstrate an understanding of the extrude and revolve features. 3. Demonstrate an understanding of the fundamentals of drawing. 4. Demonstrate an understanding of Sweep, Loft, Wrap & Additional Features. 5. Demonstrate an understanding of the fundamentals of Assembly Modeling. 6. Demonstrate an understanding of top-down assembly modeling 7. Demonstrate an understanding Rapid Prototyping <p>PROGRAM: <i>(Numbering reflects General Education Outcomes as they appear in the college catalog)</i></p> <p><u>Electronics Technology Certificate and A.S. Degree</u></p> <ol style="list-style-type: none"> 1. demonstrate an understanding of Shop Safety 2. demonstrate an understanding the theory of electrical structure, voltage, current, resistance, and electrical circuit and their measurement 3. demonstrate an understanding of the basic laws of arithmetic 4. demonstrate an understanding of several number systems and codes that are the foundation of digital theory and digital applications 5. make comparisons with personal computers; as well as, develop an understanding of its origin and growth since conception 6. demonstrate an understanding of the fundamentals of Automated Manufacturing systems <p>GENERAL EDUCATION: <i>(Numbering reflects General Education Outcomes as they appear in the college catalog)</i></p> <p>No General Education outcomes.</p>
<p>Evaluation: List how the above outcomes will be assessed.</p>	<p>Assessment will be based on the following criteria:</p> <p>quizzes exams laboratory projects</p>
<p>Instructional Resources: List library (e.g. books, journals, on-line resources), technological (e.g. Smartboard, software), and other resources (e.g. equipment, supplies, facilities) required and desired to teach this course.</p>	<p>Required: Computer lab with SolidWorks software.</p> <p>Desired: None</p>

Textbook(s)	<u>Engineering Design with SolidWorks</u> by David & Marie Planchard, latest edition.