

Technology DIVISION
☐ NEW COURSE
☐ REVISION

Course Information Form

COURSE NUMBER:		CAD-062		TITLE: (30 Characters Max)				Introduction to Solidworks																			
SEM CR HRS:		2		Lecture:		2		Lab:		0				ECH:		2											
Course Level:		<input type="checkbox"/> Gen Ed / IAI		<input checked="" type="checkbox"/> Career/Technical				Clinical Practicum:		0		SOE/ Internship:		0		SOE ECH:		0									
		<input type="checkbox"/> Baccalaureate /Non-IAI		<input type="checkbox"/> Dev Ed/ Not in Degree Audit																							
COURSE PCS #		12.151302				IAI Code								Contact Hours (Minutes Per Week)													
Repeatable (Y/N):		Y		Pass/Fail (Y/N):		N		Variable Credit (Y/N):		N		Min:				Max:				16 Wks		100		8 wks		200	
Prerequisites:		CAD-057 or consent of the instructor																									
Catalog Description: (40 Word Limit)		This course is a study of three-dimensional solid modeling using the Solidworks system. The student will learn to create, view, render and plot 3D models and assemblies.																									

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Non-Clinical Internship/ SOE
Introduction and User Interface	2			
Profile Sketching	2			
Dimensions and Relations	2			
Extruding and Revolving Profiles	2			
Modifying Solids	2			
Adding Features	2			
Sweeping and Lofting Profiles	2			
Sheet Metal Tools	2			
Drawing Views	2			
Section Views	2			
Assembly Modeling	2			
Assembly Layout	2			
Animation	2			
Printing and Plotting	2			
Prototype Development	2			
TOTAL	30	0	0	0

EVALUATION				
QUIZZES <input type="checkbox"/>	EXAMS <input type="checkbox"/>	ORAL PRES <input type="checkbox"/>	PAPERS <input type="checkbox"/>	
LAB WORK <input type="checkbox"/>	PROJECTS <input type="checkbox"/>	COMP FINAL <input type="checkbox"/>	OTHER <input type="checkbox"/>	

COURSE MATERIALS		
TITLE:	Introduction to Solid Modeling Using SolidWorks	
AUTHOR:	William Howard , Joseph Musto	
PUBLISHER:	McGraw Hill	
VOLUME/EDITION/URL:		
COPYRIGHT DATE:	2015	

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		<i>The student will be able to:</i>
Introduction and User Interface	2	Demonstrate the use of the software interface and get an overview of solid modeling.
Profile Sketching	2	Create accurate sketches and define sketch planes.
Dimensions and Relations	2	Demonstrate the use of dimensions and relations to control sketch parameters.
Extruding and Revolving Profiles	2	Create extruded and revolved profiles into 3D solids
Modifying Solids	2	Demonstrate the use of parameters to modify 3D solids.
Adding Features	2	Create detail features such as holes, fillets and shells.
Sweeping and Lofting Profiles	2	Create sweep and loft features.

Sheet Metal Tools	2	Create sheet metal models
Drawing Views	2	Arrange orthographic drawing views for plotting.
Section Views	2	Develop various types of section and cut away views.
Assembly Drawing	2	Arrange 3D solid parts into an assembly.
Assembly Layout	2	Label parts in assemblies and create parts lists.
Animation	2	Animate mechanical assemblies.
Printing and plotting	2	Create hardcopy outputs of solid models drawings.
Prototype Building	2	Demonstrate the use of a 3D printer to create a tangible model.
	30	

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
	<ul style="list-style-type: none"> • Create a solid model using extruded and revolved features.
	<ul style="list-style-type: none"> • Add detail features to solid part models.
	<ul style="list-style-type: none"> • Project orthographic views from solid model parts.
	<ul style="list-style-type: none"> • Assemble, constrain and animate 3D parts into a realistic assembly.
	<ul style="list-style-type: none"> • Create rapid prototypes.

* Course Outcomes will be used in the Assessment Software for Outcomes Assessment. Limit to 3 - 5.