

5/28/2025

DATE

☐

REQUIRED COURSE

☒

ELECTIVE COURSE

TEC

DIVISION

☐

NEW COURSE

☒

REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	CAD-062	TITLE: (30 Characters Max)	Introduction to Solidworks						
SEM CR HRS:	2.0	Lecture:	2.0	Lab:	0.0	ICCB Lab:	0.0	ECH:	2.0
Course Level:	<input type="checkbox"/> Gen Ed / IAI <input type="checkbox"/> Baccalaureate /Non-IAI		<input checked="" type="checkbox"/> Career/Technical <input type="checkbox"/> Dev Ed/ Not in Degree Audit		Clinical Practicum:	0.0	Work-based Learning:	0.0	WBL ECH: 0.0
Course PCS & CIP:	12 - 15.1302		IAI Code		N/A		Contact Hours (Minutes/Week)		
Repeatable (Y/N):	Y	Pass/Fail (Y/N):	N	Variable Credit (Y/N):	N	Min:		Max:	
								16 Wks	100
								8 Wks	200
Prerequisites:	None								
Corequisites:	None								
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. (Repeatable 3 Times)								

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
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 checked="" type="checkbox"/>	ORAL PRES <input type="checkbox"/>	PAPERS <input type="checkbox"/>
LAB WORK <input checked="" type="checkbox"/>	PROJECTS <input checked="" 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	1. Demonstrate the use of the software interface and get an overview of solid modeling.
Profile sketching	2	1. Create accurate sketches and define sketch planes.
Dimensions and relations	2	1. Demonstrate the use of dimensions and relations to control sketch parameters.
Extruding and revolving profiles	2	1. Create extruded and revolved profiles into 3D solids.

Modifying solids	2	1. Demonstrate the use of parameters to modify 3D solids.
Adding features	2	1. Create detail features such as holes, fillets and shells.
Sweeping and lofting profiles	2	1. Create sweep and loft features.
Sheet metal tools	2	1. Create sheet metal models.
Drawing views	2	1. Arrange orthographic drawing views for plotting.
Section views	2	1. Develop various types of section and cut away views.
Assembly modeling	2	1. Arrange 3D solid parts into an assembly.
Assembly layout	2	1. Label parts in assemblies and create parts lists.
Animation	2	1. Animate mechanical assemblies.
Printing and plotting	2	1. Create hardcopy outputs of solid models drawings.
Prototype development	2	1. Demonstrate the use of a 3D printer to create a tangible model.

30

Outcomes*	Outcome Title	At the successful completion of this course, students will be able to:
Course Outcome 1	Extruded Revolved	Produce a solid model using extruded and revolved features.
Course Outcome 2	Produce Detail Feat	Produce detail features to solid part models.
Course Outcome 3	Orthographic	Generate orthographic views from solid model parts.
Course Outcome 4	3D Parts Assembly	Assemble, constrain and animate 3D parts into a realistic assembly.
Course Outcome 5	Rapid Prototypes	Create rapid prototypes.
Primary Laker Learning Competency Creative Thinking & Problem Solving: Students think creatively to solve problems.		
Secondary Laker Learning Competency	Information & Technology Literacy: Students evaluate information effectively using the appropriate technological tools.	

*Course and program outcomes will be used in the software for outcomes assessment and should include at least 1 primary and 1 secondary Laker Learning Competency. Limit to 3-5.