

IVY TECH COMMUNITY COLLEGE
DESN 220, ADVANCED CAD SYLLABUS

PREREQUISITES: none

SCHOOL: Technology

CREDIT HOURS: 3

Instructor: Mark Scherer

PROGRAM: Design Technology

CONTACT HOURS: Lecture: 3 Lab: 2.5

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CATALOG DESCRIPTION:

Focuses on advanced CAD features, including fundamentals of 3D modeling for design. Includes overview of modeling, graphical manipulation, part structuring, coordinate system, and developing strategy of modeling. Advanced CAD will enable the student to make the transition from 2D drafting to 3D solid modeling.

MAJOR COURSE LEARNING OBJECTIVES:

Upon successful completion of this course the student will be expected to:

1. Understand basic operation and options of Solid Works software
2. Create solid part files using a variety of different methods
3. Create basic assembly files
4. Create and edit Solid Works drawings
5. Create and edit sheet formats and templates
6. Understand and apply proper dimensioning

These operations will be applied to (but not limited to):

1. Machined, molded, and sheet metal parts
2. Simple mechanical assemblies
3. Section views
4. Auxiliary views
5. Isometric views
6. Exploded Views

REQUIRED TEXT AND CURRICULUM MATERIALS

SolidWorks 2014 Part 1 - Basic Tools, by Paul Tran, and supplemental handouts. The 2013 version of the textbook is acceptable.

EVALUATION

Assignments 69%

Final Project 20%

A-WORK 11%

A = 90% - 100%

B = 80% - 89%

C = 70% - 79%

D = 60% - 69%

CLASS FORMAT & EXPECTATIONS:

Each week, we will do some exercises together in class to introduce commands or concepts. These exercises will need to be turned in. Additionally, other assignments will be given as homework but I will give you time to work on them in class. The different values for these types of assignments will be seen in the point value. This way, everything designated as “assignment” will self-weight.

You will need to complete a final project that will incorporate the concepts and commands learned in class. This will likely be an assembly with multi-view and exploded view drawings. This will be assigned with 4 or 5 weeks remaining in the semester. It will be due the last day of class.

In order to achieve an A in this class, you must be willing to do additional work on top of the given assignments. These will be listed on each class handout.

Because of the file path connections inherent to SolidWorks, you will create a folder for each week’s assignments. To turn in work, I will simply copy the folder. It is important you name the folder properly as well.

File management matters, and to that end you will create a folder named DESN220. Within it, you will create additional folders to store your work based on the session number and your name:

DESN220>Session 1-“first initial & last name”

File management matters, and to that end you will save all work in the following format:

DESN220-20C-“first initial & last name”-“assignment”

For example, DESN220-20C-rwashburn-P611

I cannot have 40 students turn in something named “P52A”. You need to get in the habit of being the person in charge of organizing files. Be smart about it. You will have 3 weeks to get this right or I will not accept the work.

INSTRUCTOR STATEMENT:

It is not my objective to weigh you down with excessive work. If you come to class and use that time wisely, most of you should be able to complete the work in class.

I encourage you to ask many questions of me. You pay me to help you understand and to prepare you for a professional career. It is not acceptable for Ivy Tech, or me personally, to fail you in that regard. Do not be afraid to make mistakes while you are in school; they prepare you for *not* making mistakes in your job. I also encourage you all to help each other as you are able.

I will not accept disrespectful or disruptive behavior during class. If your behavior prevents me from effectively teaching all students in the class, or if your behavior is

disrespectful, demeaning, or insulting to other students, I will make it my mission to remove you from the class.

HOW TO ACCESS THE IVY TECH COMMUNITY COLLEGE LIBRARY:

The Ivy Tech Library is available to students' on and off campus, offering full text journals and books and other resources essential for course assignments. Go to <http://www.ivytech.edu/library/> and choose the link for your campus.

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The College is committed to academic integrity in all its practices. The faculty value intellectual integrity and a high standard of academic conduct. Activities that violate academic integrity undermine the quality and diminish the value of educational achievement. Cheating on papers, tests or other academic works is a violation of College rules. No student shall engage in behavior that, in the judgment of the instructor of the class, may be construed as cheating. This may include, but is not limited to, plagiarism or other forms of academic dishonesty such as the acquisition without permission of tests or other academic materials and/or distribution of these materials and other academic work. This includes students who aid and abet as well as those who attempt such behavior.

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