



Pima Community College

Course Syllabus

Campus/Center: Palo Verde High School

Room Number: TBA

Course Number: CAD 142

Course Title: Introduction to Parametric Modeling: Solidworks

CRN:

Course Description: Beginning level parametric modeling mechanical concepts, techniques, and problems using SolidWorks software. Includes parametric modeling, working drawings and assemblies.

Course Prerequisites: None

Course Co-requisites: None

<p>Required Textbook(s):</p> <p>Other Course Materials:</p> <hr/> <p>Solidworks Software will be provided</p>	
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MyPima.pima.edu – MyPima is a course tool used as means of communication and/or for accepting course work. Your instructor will guide you in how it may be used in your course. Through MyPima you can also register and pay for classes, check your financial aid, access your student email, view your schedule, and read college-wide announcements.

Instructor:
Office Location:
Office Hours: Monday – Friday 8:00am-4:00pm
Instructor Phone:
Instructor Email:

Start Date:
End Date:
Website: Pima.edu
Class Meeting Days: Monday - Friday
Class Meeting Time: Monday 9:05-10:50am
Wednesday – 8:00am-8:49am Thursday/Friday – 8:00-9:00am
Final Exam or Final Activity Date: This will be posted in Synergy student view.

Course Learning Outcomes:

Upon successful completion of the course, the student will be able to:

1. 1. Communicate the fundamentals of the SolidWorks environment.
2. 2. Construct parametric part models using SolidWorks.
3. 3. Create parametric assembly models.
4. 4. Create detailed design documentation for parts and assemblies.

Outline:

- I. SolidWorks Environment and Introduction to Parametric Modeling
 - A. SolidWorks screen layout
 - B. Mouse buttons
 - C. Cancelling commands
 - D. Units setup
 - E. Viewing functions and tools
 - F. Design tree
- G. II. Parametric Part Modeling Techniques
 - H. A. Feature based parametric modeling
 - I. B. Modeling strategy
 - J. C. Creating sketches
 - K. D. Creating geometric relationships
 - L. E. Apply dimensions
 - M. F. Create base feature
 - N. G. Add extruded boss or cut features
 - O. H. Parent and child relationships
 - P. I. Introduce GD&T symbology
- Q. III. Parametric Assembly Modeling Techniques
 - A. A. Insert parts into assembly
 - B. B. Create mate relationships
 - C. C. Introduce motion studies
- A. IV. Detail and Assembly Documentation
 - B. A. Introduce first and third angle projection
 - C. B. Create drawing Views: Standard, Auxiliary, Detail, and Sections
 - D. C. Place dimensions and GD&T symbology
 - E. D. Bill of Materials and Ballooning

American Disabilities Act (ADA) Policy Statement

- PCC is committed to providing accommodations for qualified individuals with disabilities in a timely and effective manner. To request a reasonable accommodation, students must be registered with the campus Access and Disability Resources (ADR) office. Accommodations will be made based on eligibility determined by Access and Disability Resources. Services can be requested at any time during the semester. Requesting services well in advance will help to ensure that resources are available when needed. Please contact the ADR office at 206-6688 or ADRHHelp@pima.edu.

General Campus Conduct

- Visitors are not allowed in class sessions or on field trips.
- Possessions of drugs, alcohol or firearms are not allowed on college property per College policy.
- Smoking, e-cigarettes and soliciting are not allowed in classrooms. Smoking is only permitted in designated smoking areas.
- Any item that is used in a way that is disruptive to the classroom is not allowed. Such items may include cell phones, pagers and any other electronic devices that distract students.

- Animals are not allowed in the classroom as per SPG-3603/BA. Visit <https://www.pima.edu/about-pima/policies/standard-practice-guides/SPG-3603-BA.html>
- Students creating disturbances that interfere with the conduct of the class or the learning of others, violates the Student Code of Conduct. Students will be referred to an administrator.
- Disruptive behavior will not be tolerated and can be cause for being dropped from the class. Disruptive behavior disrupts the learning process. Examples of disruptive behavior can be inappropriate talking, arriving late or leaving early, sleeping in class, etc.

Course Grade Determination

Grading and Learning Criteria:

Note: Above average grades, require an above average amount of time and effort!!!

Each learning station has (4) parts that you are responsible for completing **in the following order:**

1st-Learning and Practicing the information and tasks taught at the learning station until all videos are completed and you mastered the content.

2nd-Complete Homework assignments with a minimum of 75% proficiency

3rd-Complete the Written Exam with a minimum of 75% proficiency

4th-Complete the Hands-On Test with a minimum of 100% proficiency

You may retake the 2nd, 3rd, or 4th requirement (listed above), one time only! **Failure after a second attempt to obtain the required proficiency constitutes failure of the learning station** and you will be moved on to a different learning station.

You **may only retest or redo** an assignment to be turned in for a grade, **(24) hours later** or your next scheduled lab! Do not retest or redo until you are absolutely sure you have mastered the content and tasks!

Note: The **above grading and learning criteria supersedes any previous written procedures** such as listed on existing work orders.

Grade system:

A-Superior, (4) learning stations mastered. **Including Homework and Written Passing**

B-Above average, (3) learning stations mastered. **Including Homework and Written Passing**

C-Average, (2) learning stations mastered. **Including Homework and Written Passing**

D-Below average (1) learning stations mastered. **Including Homework and Written Passing**

F-Failure, No Stations Completed

I-Incomplete-Requested by student, in writing to the Instructor of record 5-days before the last official day of the semester.

Requires a minimum of 60-hours lab time recorded on your timecard and 60% of the learning stations (all 4-parts) completed.

Course Policies and Procedures

There are no excused absences! If you miss time, it must be made up. Notify an instructor if you are going to be absent and schedule your make up time. Failure to notify an instructor of your absence could result in your card being removed from the rack and you will have to speak with an instructor before returning. Students, who **fail to show up for two weeks (minimum of 6 hours)** or more prior to the 45th day, and have not contacted the instructor listed on this syllabus, may **be withdrawn** from the class. Those who miss two weeks or more after the 45th day will **receive an "F"** (unless your grade is higher) for the course. If you are dropping the class it is your responsibility to go to registration and submit a drop form. You must **attend each course every week** for approximately (4) hours each (**minimum of 3 hours each**). If you are going to be more than a half hour late, or absent, you must call us and ask us to either hold your station available a little longer, or to document on your card that you will be absent. If you are absent, **you must make up the time** the same week or following week. AUT 122- is the only course that is an exception, since its schedule is different. Students **arriving more than one hour after** the class begins **will not be allowed** to attend class for that period!

Before being assigned to a learning station, the **student must complete the Automotive Technology program**

Orientation/Briefing, which includes personal and environmental safety. Some courses require student assignment to specific learning stations-check with the lab personnel.

You are required to read the assigned chapter(s) and complete the homework for every learning station prior to completing the required tests, as outlined in the learning station descriptions listed below. You will answer all of the questions at the end of the

chapter(s), in writing (A,B,C,D, answers are OK for the multiple choice questions) to be turned in for grading and documentation on your time card and work order, **after completing the learning portion** of the learning station.

Course Schedule

Monday	1 st period 9:05-10:50
Tuesday	no class
Wednesday	8:00-8:49
Thursday	8:00-9:00
Friday	8:00-9:00