MECH 200 – Graphics II
Course Syllabus
Fall 2016

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Course Description: Drawing standards, geometric dimensioning and tolerancing, working drawings, product data management, intermediate solid modeling, introduction to Rapid Prototyping and specialized graphic applications.

Prerequisites: MECH 100 and MECH 100L

Textbook:

Class Meetings:
Section 01 – Lecture – Monday – 1:00 to 1:50 – Langdon 302
Section 03 – Lab – Tuesday – 2:00 to 4:50 – O’Connell 438
Section 04 – Lab – Wednesday – 2:00 to 4:50 – O’Connell 438
Section 05 – Lab – Thursday – 8:00 to 11:00 – O’Connell 438

Lecture: 50 minute PowerPoint presentation:
• Notes, key points, weekly assignments

Lab:
2 hour 50 minute lab period:
• Separate in-class lab assignment
• Time to work on weekly assignments
• Opportunity for general questions and one-on-one help

Course Materials:
Required course materials include textbook, sketch pad (engineer’s pad works well for this), and storage media such as a flash drive. Also recommend a cloud based storage service such as Dropbox, Google Drive, etc. Note: A lost, stolen, or corrupted flash drive is not an accepted excuse for missed work.

Grading:
Weekly assignments 40%
In-class lab assignments 10%
Midterm project 20%
Final project 30%

Weekly Assignments: Assignments made during each week’s lecture. Due at beginning of following week’s lecture. Some work time is available during lab meetings.

In-Class Lab Assignments: Brief assignments made at beginning of lab period. Due before end of lab period. Graded pass/fail. No show is no grade; no exceptions.
### Project Work:
Two major projects are required in the course. The midterm project is a reverse engineering assignment resulting in a complete set of Working Drawings. The end-of-semester project requires modeling, rendering, animation, and presentation of a complex moving assembly.

### Blackboard Learn:
This course will make use of the Blackboard Learn course management system. All lectures, handouts, assignments, solutions, grades, announcements, etc. will be available on the course Blackboard page. It is highly recommended that you visit it regularly.

### Hardcopy Assignment Submission:
For hardcopy submission, your name and lab section number (03, 04, or 05) must be indicated on at least the first page. Multiple pages should always be stapled together. Assignments cannot be submitted in stages (the initial submission is all that is accepted). Failure to follow these simple instructions will result in a grade reduction on the assignment.

### Electronic Assignment Submission:
Electronic submission will be handled via Blackboard Learn. Students are strongly encouraged to verify submissions made through Blackboard Learn. It is the student’s responsibility to ensure the correct file has been submitted for the assignment. **No accommodations are made for incorrect submissions.** I do not accept assignments via email.

### Late Work:
Weekly assignments are due at the **beginning** of the next lecture period. If you are late to class, your work is late. Assignments will be accepted late the same day with a one letter grade deduction. Assignments will not be accepted after their due date. In-class lab assignments will not be accepted from students that are more than a few minutes late for their scheduled lab meeting, even if the assignment is completed. In class assignments must be submitted in person. There is no late work policy for the midterm project. No project at the deadline = zero grade.

### Email:
In the event I need to contact members of the class or make urgent announcements regarding tests, class cancellations, etc., it will be done via your WildcatMail email account. I do not plan to use this method of communication frequently, but I do expect that information sent this way will be received. University policy requires students to monitor their WildcatMail accounts. If you have another preferred email provider, you may set up automatic forwarding of your WildcatMail to that address. Details are available at [www.csuchico.edu/itss/](http://www.csuchico.edu/itss/).

### Academic Integrity:
By their nature, computer based assignments lend themselves to easy copying and sharing. Any sharing of electronic data constitutes a violation of the university’s academic integrity policy and will not be tolerated. Violations will be referred to student judicial affairs and can result in penalties ranging from failure of the course to long term suspension from the university. See the *Academic Integrity* document for additional information.
Americans with Disabilities Act: If you need course adaptations or accommodations because of a disability or chronic illness, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Please also contact Accessibility Resource Center (ARC) as they are the designated department responsible for approving and coordinating reasonable accommodations and services for students with disabilities. ARC will help you understand your rights and responsibilities under the Americans with Disabilities Act and provide you further assistance with requesting and arranging accommodations. ARC is located at Student Services Center 170 and may be reached at 530-898-5959 or arcdept@csuchico.edu.

Course Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction, Parametric Modeling Overview, Review of MECH 100</td>
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<tr>
<td>2</td>
<td>Dimensions in Parametric Modeling, Fully Defined Geometry, Tolerancing, Fits</td>
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<td>3</td>
<td>GD&amp;T Basics, Summary, Symbols, Inspection Tools, Datums</td>
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<td>4</td>
<td>GD&amp;T Tolerance Zone, Inspection Processes, Form &amp; Orientation Controls</td>
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<td>5</td>
<td>GD&amp;T Location Controls, RFS, MMC, Bonus Tolerance, Basic Dimensions</td>
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<td>6</td>
<td>Fasteners, Thread Terminology, Threads in Drawings, Threads in SolidWorks</td>
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<td>7</td>
<td>Assemblies, Assy Features, Top Down, Smart Fasteners, Midterm Project</td>
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<td>8</td>
<td>Working Drawings, Assembly Drawing, References, eDrawings</td>
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<td>9</td>
<td>Mechanism Assemblies, Physical Simulation, Animations</td>
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<td>10</td>
<td>Results Plots, Key Frames, Animation Wizard, Viewpoints, Cameras</td>
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<td>11</td>
<td>Gears, Belts, Chains, SolidWorks Power Transmission Tools</td>
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<td>12</td>
<td>Introduction to Rendering, Appearances, PhotoView 360, Final Project</td>
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<td>13</td>
<td>Surfaces, Spline Tool, 3D Sketches, Split Lines, 3D Content Central</td>
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<td>14</td>
<td>Configurations, Design Tables, Rendering Animations</td>
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<td>15</td>
<td>3D Scanning, 3D Printing, Wrap-up</td>
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<tr>
<td>Exam</td>
<td>Final Project Presentations take place in OCNL 438 and are scheduled based on your Lab section. Exam Week is December 12-16.</td>
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