

**Dept. of Mechanical and Mechatronic Engineering and Sustainable Manufacturing**

**SPRING 2019**

**SMFG 201 - Graphics Applications for Manufacturing [2 units]**

**PREREQUISITES:** MATH 105, MECH 200

**CLASS MEETINGS:** Lecture: Tuesday 1:00 to 1:50 pm  
Lab: Thursday 11:00 am to 1:50 pm  
Location: OCNL 438

**INSTRUCTOR:** Scott Brogden

**OFFICE:** PLMS 114B

Office Phone: 530-898-5097 E-mail: [sbrogden@csuchico.edu](mailto:sbrogden@csuchico.edu)

Mobile Phone: 530-680-2521

MMEM Dept. Phone: 530-898-5346

**OFFICE HOURS:** M 4-5pm, W 1-2pm, Th 9-10am, F 1-2pm and by appointment.

**CATALOG DESCRIPTION:**

Advanced solid modeling techniques, quality assurance (inspection, metrology, coordinate measuring machines, statistical process control, six sigma) and design considerations (design for manufacturing, rapid prototyping). 1 hour lecture, 3 hours laboratory

**COURSE OBJECTIVES:**

This course deals with advanced solids modeling applications in industrial design and related areas. A student, upon completion of this course, should have a basic understanding of the role of solids modeling in product design, assemblies, mass properties analysis, finite element modeling and analysis, and computer aided manufacturing. In addition, students will learn how to create detail drawings from solid models and apply GD&T (geometric dimensioning and tolerancing) and other forms of industrial graphics communication as defined by drafting standards.

**RECOMMENDED TEXTBOOK:** Technical Graphics Communication, 4<sup>th</sup> edition, Bertoline.  
Other supplementary material will be utilized and posted on Vista.

**COSTS DURING TERM OF COURSE:** None anticipated

<b>GRADING:</b> 1 Midterm Exam	25%
1 Final Exam	25%
Unannounced Quizzes	10%
Laboratory	<u>40%</u>
	100%

**Note:** 1 page of notes may be used for quizzes and exams. Make-up exams and quizzes will not be offered without a doctor's excuse from class.

**Note:** All written assignments will be typed 12 font, Times New Roman, double spaced with 1" margins.

**Note:** Late assignments will not be accepted. No make up work is permitted.

Exams will be given on scheduled dates in our regular lecture room.

**ATTENDANCE:** Because true learning occurs only when the learner is an active participant in the learning process, your active participation in this class is essential and expected. Missing any lecture or lab session will be detrimental to your success and ultimately your grade in this course. Every class meeting will provide opportunities for both lecture and demonstration material to be received. Do not expect the instructor to provide special make-up demonstrations of missed material.

**ACADEMIC HONESTY:** It is expected that each student will complete his or her own work in this class and will not engage in any form, whatsoever, of academic dishonesty. According to CSUC policies, academic dishonesty generally:

“is taking credit for work which is not your own or attempting to receive credit or improve a grade through fraudulent or deceptive means. Examples include taking information from or providing information to another student, plagiarism, or altering a grade or record.”

CSUC policy states implications of cases of academic dishonesty: “If a student is thought to be cheating and charges are brought, the process can result in severe consequences, ranging from failure in an individual course to long-term suspension from the university and denial of a degree.” If there is anything about academic (dis)honesty that is unclear to you, please see the instructor or CSUC Academic Affairs for clarification.

**COMMUNICATION:** Please see me if you feel you are falling behind, or want to discuss anything associated with this course. Good communication is essential to the success of this course and those associated with it! Please feel free to stop by during my office hours, call me on my office phone, call me on my cell phone, or email me with any issues. (If you prefer email, my CSUC email is the best way to contact me. If you use the Vista email, it may take little longer for me to respond.) The earlier I am aware of any problems you may be having, the earlier a solution can be developed and the more likely you are to succeed in this course.

### **ACADEMIC INTEGRITY:**

Students are expected to be familiar with the University’s Academic Integrity Policy. Your own commitment to learning, as evidenced by your enrollment at California State University, Chico, and the University’s Academic Integrity Policy requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the Office of Student Judicial Affairs. The policy on academic integrity and other resources related to student conduct can be found at: <http://www.csuchico.edu/sjd/integrity.shtml>.

### **DISABILITY SERVICES:**

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 the 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. The ARC website is <http://www.csuchico.edu/arc/>.

### **STUDENT SERVICES:**

Student services are designed to assist students in the development of their full academic potential and to motivate them to become self-directed learners. Students can find support for services such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. Student services information can be found at: <http://www.csuchico.edu/current-students>.