

**S Y L L A B U S**

<b>COURSE</b>	ET 482(G) · 001 – Parametric Modeling [STAR# 70031]				
<b>PREREQUISITE</b>	ET 207 <i>or</i> permission of instructor				
<b>TIME (T Th)</b>	10:00 - 11:50	<b>CLASSROOM</b>	KH 106	<b>TERM</b>	SPRING 2012
<b>CREDIT HRS</b>	3	<b>LECTURE HRS</b>	2	<b>LAB HRS</b>	2

**COURSE DESCRIPTION**

The application of computer aided design techniques utilizing industrial software within a minicomputer and workstation environment. NOT open to students with credit for *ENGR 482*.

**TEXTBOOK:** Bertoline, G. R., Wiebe, E. N., Hartman, N. W., & Ross, W. A. (2011). *Fundamentals of Graphics Communication* (6th Edition). New York, NY 10020: McGraw-Hill.

**REFERENCE:** Shih, R. (2011). *Parametric Modeling with Autodesk Inventor 2012*. Mission, KS 66222: SDC Publications.

**OBJECTIVES**

Upon the completion of the course, students will be able to:

- Explain and describe the main characteristics of parametric modeling as well as its similarities and differences with other modeling techniques.
- Identify applications for parametric models and their relationship with Manufacturing and Process Planning.
- Create and analyze three dimensional parametric models and standard features.
- Develop working drawings, exploded assemblies, and bills of material based on parametric models.
- Define manufacturing and assembly constraints.
- Develop skills that will enable the learning of other parametric computer aided design systems.

**INSTRUCTOR**

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**EVALUATION****Participation (15%):**

Each student is expected to complete several outside reading assignments, from the textbook or other resource materials, in order to be prepared for every class. Class discussions, quizzes, exams, presentations, or written reports, could be used to evaluate the fulfillment of this task.

**Assignments/Projects (45%):**

Approximately 10 projects will be assigned during the semester. Each one is worth 100 points (points will be deducted according to the evaluation criteria explained in class). Due dates will be set for each given assignment.

Any assignment that is turned in late will NOT be graded, and thus not recorded.

Students who are absent can usually make up missed work, NOT including quizzes, exams, or presentations. It is the STUDENT'S responsibility to review missed lectures and lab material, and to make arrangements for make-up work upon their return to class.

**Mid Term Exam (20%):**

A Mid Term Exam, related to the course objectives, will be given during the semester. Other tests may also be administered. All tests will be announced in advance; no make-up tests are given. A grade of "0" will be recorded for a missed test.

**Midterm Exam:** Thursday, March 8 (10:00 am)

**Final Project (20%):**

All students will be given a final project, which is due the last session of the semester. Students will present the results of the project during the time assigned for final exam. If the project is not turned in, the student will not be allowed to make the final project presentation.

**Extra Credit Work:**

Several extra credit assignments will be given during the semester. Students are NOT required to fulfill these activities, but each such assignment completed correctly (on time) can help raise a final grade. A grade of "85" or higher is required for the assignment to be recorded.

**GRADING INFORMATION**

The following scale will be used to determine individual assignments/projects, tests and final grade:

100 - 94 % = A	77 - 74 % = C
93 - 91 % = A-	73 - 71 % = C-
90 - 88 % = B+	70 - 68 % = D+
87 - 84 % = B	67 - 64 % = D
83 - 81 % = B-	63 - 61 % = D-
80 - 78 % = C+	<b>60.99 % - below = F</b>

SAVE all assignments after they are graded and returned. Mistakes can inadvertently be made during grade recording. It is easier to resolve question concerning grades if all returned work is saved until after the course is completed.

## COURSE POLICIES

### Conduct:

It is expected that students behave properly in class. Students who disrupt class (including the use of cellular telephones or pagers), or deface equipment or property will be removed from the classroom, and penalized in the current assignment/project, and in extreme cases with a **FAILING** final grade.

Plagiarism, cheating, and other forms of academic dishonesty constitute a serious violation of University conduct regulations. Students who engage in dishonesty in any form shall be charged with academic dishonesty. Cheating will result in **FAILING** the course automatically.

### Attendance:

Do NOT miss classes, attendance and participation are required. Lectures and demonstrations will occur at varying times during the class period. However, attendance for the whole session is not always necessary if the required assignment/project has been completed and turned in.

Absences will be recorded and will affect the final grade (4 absences = -1 letter grade)

## STUDENT RIGHTS AND RESPONSIBILITIES

It is essential that all students know what is required of them in order to complete a course satisfactorily. To that end, the Office of the Provost and Academic Vice President recommends that students become familiar with the guideline concerning their rights and responsibilities. The guidelines are available on-line at: [www.wiu.edu/provost/students](http://www.wiu.edu/provost/students).

## STUDENTS WITH DISABILITIES

In accordance with University policy and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. For the instructor to provide the proper accommodation(s) you must obtain documentation of the need for an accommodation through Disability Resource Center (DRC) and provide it to the instructor. It is imperative that you take the initiative to bring such needs to the instructor's attention, as he/she is not legally permitted to inquire about such particular needs of students. Students who may require special assistance in emergency evacuations (i.e. fire, tornado, etc.) should contact the instructor as to the most appropriate procedures to follow in such an emergency. Contact Disability Resource Center (DRC) at 309 298 2512 for additional services.

## SPECIAL COURSE COSTS:

Students are required to pay a special charge of \$25.00 for each lab-related class in the Engineering Technology Department. The money is used to support consumable items used during the course. Payment of the special charge is a required portion of the class and must be paid after the second week of the semester, or at most, prior to the final exam. Students NOT paying the special charge will receive an "I" for the course. If the charge is not paid, the grade will change from "I" to "F" according to University Policy. Once the grade is changed to an "F" it will remain as such on the permanent transcript, regardless of payment. Payments can be made in the Department office, Knoblauch Hall 135, after the beginning of the third week of classes. For the convenience of students, the instructor will announce a date when a staff member will visit the classroom to collect course charges en masse. It is recommended that students pay by check, made out to WIU, and should expect a receipt to serve as proof of payment. Questions or concerns, direct them to the staff in the Department office, or call 309 298 1091.

**LAST DAY TO DROP COURSE**

If any student decides that it is in her/his best interest to drop the course, with a "W" grade, the last day to do so for this semester is April 1, 2012.

**INCOMPLETE GRADE POLICY**

A temporary *I* (Incomplete) grade for a course may be issued to a student only when, due to circumstances beyond her/his control, the individual has been unable to complete the course requirements within the official limits of the term. The circumstances must be documented to the instructor's satisfaction.

**GRADUATE STUDENTS**

Students taking the class for graduate (G) credit will be expected to perform at a higher level and to complete additional assignments. It will be the student's own responsibility to make arrangements with the instructor early in the school term for those supplemental assignments.

**RESOLUTION OF PROBLEMS**

Circumstances, of any kind, interfering with a student performance in the course should be brought to their instructor first. If problems are not resolved, the student must seek assistance from the chair of the department. If the problem continues to be unresolved, students are encouraged to bring the issue to the Dean of the College.

Students should observe the following sequence for the resolution of problems:

Student → Instructor → Chairperson → Dean

**GOALS FOR STUDENT LEARNING**

The Department of Engineering Technology is committed to provide educational programs that allow students to communicate effectively, design and apply technical solutions, use technology effectively, and respond to project management tasks in an environment with continually changing and sophisticated technology in an increasingly competitive global marketplace.

By graduation, Engineering Technology students (in Construction Management, Graphic Communication, and Manufacturing Engineering Technology) should be able to:

- Think critically and creatively
- Understand the theoretical principles of their profession
- Understand and apply relevant technology in the solution of technical problems
- Organize, manage, and maintain projects
- Develop an appreciation for ethical and professional practices
- Develop and refine oral, written, and visual communication skills
- Demonstrate an overall competency in the program objectives

**COURSE OUTLINE AND OFFICE HOURS:** [www.wiu.edu/users/mfro/classes.htm](http://www.wiu.edu/users/mfro/classes.htm)

*Syllabus subject to change upon notice.*