

Course Syllabus
Fall Semester 2014
School of Technology

Program Name: CAD Technology
Course Name: Introduction to CAD
Course Number: CAD 115
Credits: 3
Contact Hours: 5, (Lec-2, Lab-3)
Instructor's Name: Alan Bethea
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Catalog Description: Uses CAD software to produce fundamental drawings. Presents a general overview of computer system hardware and software. Throughout lab sessions, students learn command syntax, entity insertion, graphics manipulation and other concepts required to complete assigned projects.

Prerequisites/Co-Requisites: none

Current Textbooks, Materials, Equipment (software/hardware requirements):

- Text:** AutoCAD and its Applications, by Shumaker and Madsen, available in OCC bookstore.
- Hardware:** Flash Drive (minimum of 1 gigabyte).
- Notebook:** Each student will develop a white, 3 ring binder notebook in which they save all of their CAD drawings.
- Job Search:** Each student will enroll at the OCC J.O.B.S. office in order to receive job search assistance.
- Dress Code:** No hats in class, not low cut shirts, shirts must have sleeves, no "commercial" or "logo" shirts. If your shirt has tails, they must be tucked into your pants. All pants must be up to waistline at all times.
- Cell Phones:** No cell phones are to be used in class. If you are expecting an emergency call, then notify the instructor first. Use your cell phone only during the "break time" of our class sessions.
- Computers:** You are to use the classroom computers only for your coursework. Do not "surf the net" to any site other than one directed by the instructor.

Safety: Safety of all class and laboratory participants is of primary importance and precedes all other considerations. All participants must act responsibly and operate equipment in a safe manner consistent with both written and verbal instructions. Deliberate misuse of equipment, failure to follow safety procedures, or any horseplay will result in immediate disciplinary action.

Course Objectives: At the completion of the course, the student will be able to:

1. Utilize CAD software to learn 2D sketch development, editing and production.
2. Utilize CAD software to develop prints of sketches.
3. Utilize CAD software to set up templates, set program variables and manage electronic database of files.

Student Learning Outcomes:

1. Learning general CAD terminology, coordinate systems, inquiry commands, printing drawings, draw commands, edit commands, dimensioning, block commands, layers, display commands, utility commands, and setting prototype drawings.
2. Understanding electronic drafting by drawing a variety of components utilizing ANSI Graphic Standards symbols and terminology and Geometric Dimensioning and Tolerancing, orthographic views, sections and section views, auxiliary views, detailing and dimensioning views and specifying tolerances where appropriate.
3. Understand the development of multi-sheet/multi-part assemblies/sets based upon orthographic views of parts, assembly of parts with appropriate details and bill of materials.
4. Usage of dialog boxes for dimensioning and other variable and input-driven commands.
5. Students will have an in-depth proficiency with AutoCAD (CG Survey).

Grading Procedure:

900 -1000	A
800 - 899	B
700 - 799	C
600 - 699	D
000 - 599	F

Grading Scale:

Lab Drawing	90%
Quizzes (2)	5%
Midterm	2.5%
Final Exam	2.5%

The Class

This class is going to be taught as though it were a business, an engineering firm, and you are the employees. You will be paid \$40.00 per drawing. Over the duration of 15 weeks of class for you to do 25 drawings, you will receive the equivalent of \$1000.00 for 75 hours of work.

Each drawing will award you \$40.00 toward your grade as judged by the following criteria:

- a. Accuracy of geometry.
- b. Accuracy of views.
- c. Accuracy of dimensions and their placement.
- d. Accuracy of border, title block, revision block and bill of materials.
- e. Accuracy of printing, layers, colors and linetypes.

Also, there are two (2) extra drawings which you can use to earn more money (raise your grade).

Each student will be given one (1) vacation day and one (1) sick day. For each ½ hour that you are late to class, you will have \$6.60 deducted from your pay for the day. Any part of a ½ hour period of time is considered a full ½ hour. Each drawing is due on the day stated on your class schedule. For each class session that your drawing is late, you will have 10 points (\$10.00) deducted from your grade (paycheck).

Specific Course Rules:

1. All assignments are due on the indicated date of the class schedule.
2. "Lab Drawings" are your weekly assignments.
3. "In Class Drawings" are for you to earn extra points toward your grade (class attendance is mandatory for you to earn extra credit points by completing the "in class drawings" during the class time).
4. "In Class Quizzes" are for you to earn extra points toward your grade. The quizzes will be based upon your reading assignments.
5. Interaction and conversation with your fellow students is essential. Cooperate and help your fellow students. We can all learn a lot from each other if we learn together.

Disability Resources Services: If you have a disability or acquire one, you may be entitled to receive individualized services and/or accommodations intended to assure you an equal opportunity to participate in and benefit from the program. To receive more information or to apply for services, please contact the Disability Resources Services Office.

Miscellaneous Information:

Two organizations are constantly evaluating OCC's School of Technology programs, such as the CAD curriculum. In an effort to indicate to these organizations that OCC is offering superior standards in teaching excellence, we are asking you to demonstrate to them through an "outcomes assessment" drawing that you are learning more than just the basics of CAD. You will be provided with a print of an object you have already assembled. You are asked to use your assembly and detail it in every possible way in order to indicate that you have learned how to work the CAD program and can provide a very detailed print for manufacturing/production.

Important Dates for you to remember

January 18	Holiday – College Closed
March 5 – 14	Spring Break – College Closed
May 2	Last Day of Class
May 3 -7	Final Exams

Assignment Calendar

Week	Topic
1	Settings, Border, Title Block, Template, Layers, Colors and Linetypes
2	Commands to Create and Modify Objects (part 1 of 3)
3	Commands to Create and Modify Objects (part 2 of 3)
4	Commands to Create and Modify Objects (part 2 of 3)
5	Views: Orthographic, Isometric, Auxillary, Section and Detail (part 1 of 2)
6	Views: Orthographic, Isometric, Auxillary, Section and Detail (part 2 of 2)
7	Dimensioning, Tolerancing, Text and Blocks
8	Layout, Model and Paper Space, Printing and Plotting
9	Assemblies and Hatching (part 1 of 3)
10	Assemblies (part 2 of 3)
11	Assemblies (part 3 of 3)
12	Boolean Solid Modeling (part 1 of 2)
13	Boolean Solid Modeling (part 2 of 2)
14	Introduction to Parametric Modeling (part 1 of 2)
15	Introduction to Parametric Modeling (part 2 of 2)
16	Final Exam

Disclaimer:

“The instructor reserves the right to amend, adjust or otherwise modify this syllabus at any time during the semester as deemed necessary toward the further learning and education of the students.”

General Information

For information on FERPA, Cheating and Plagiarism, Assessment of Student Learning Outcomes and Student Code of Conduct, please refer to the appropriate section of the current Owens Community College Catalog online.

Assessment of Student Learning at Owens Community College**Purpose**

The purpose of assessment of student learning is to help the College determine the extent to which it is fulfilling its mission of educating students. Assessment allows the College to make improvements in program structure, course content, and pedagogy. It also assists in advisement and placement and provides students with indicators of their performance.

Assessing Student Learning at the Program Level

Assessment at the program level provides a clear sense of what the program is designed to accomplish and what students who complete the program should know, understand, and be able to do when they graduate. Ultimately, the assessment process yields data that informs faculty and other decision-makers about relevant issues impacting the program and student learning. This data is used as a foundation to support recommendations for program improvement.

Assessing Student Learning at the Institutional Level

Assessment monitors the competence of students, not just in terms of expertise in their program of study but also with respect to the attainment of a general education. All degree-seeking students at Owens must complete a core of courses to provide a foundation that aids in the achievement of general education competencies in writing, oral communications, mathematics, and computer skills. These competencies are also integrated into and reinforced in all degree programs through non-general education courses.

In addition to the core competency categories discussed above, the College has identified a number of other important components of its General Education Program. Owens Community College encourages and supports initiatives at the personal, departmental and college-wide levels that help students develop and augment those values and skills necessary for successful living in an increasingly complex and ever-changing global environment. These components of the College’s General Education Program include

critical thinking, ethics, and diversity. Students will find additional information on the College's General Education Core in the College Catalog.

Student's Role

Students are assessed at all levels of institutional operations, including program and general education levels, at different points during their academic career at Owens. Typically, assessment is embedded within the teaching function of Owens and, ideally, occurs during each student's regular academic effort. The student's role is very important in the assessment process. A successful assessment program begins and ends with the students' participation. Their participation allows the College to get a snapshot of students' performance, without affecting their class grades.

FERPA

The Family Education Rights and Privacy Act of 1974 as amended. All transcripts from other institutions including high school and colleges are a part of the student's permanent record and will not be released back to the student. If the student needs a copy of these transcripts, they should be ordered from the original institution.

Cheating and Plagiarism

Dishonest scholarly practices include, but are not limited to taking, using or copying another's work and submitting it as one's own, intentionally falsifying information or taking another's ideas with the intention of passing these ideas as one's own. A judgment regarding the dishonest scholarly practice should, in most cases, be made by the individual instructor. The basic criterion that will be used to judge the dishonest scholarly practice is the intention of the student to enhance his/her own position within the class by employing a dishonest or unacceptable scholarly practice. A few examples include, but are not limited to:

1. Work copied verbatim from an original author without proper credit;
2. Work copied with only a few words altered from the original without proper credit being given;
3. Answers copied from another's test paper;
4. Evidence of a deliberate and calculated plan to engage in a dishonest academic practice, such as gaining access to examinations prior to the exam time or the extraction of information regarding an examination from other students; and
5. Falsification of clinical records.

Consequences for proven cases of dishonest scholarly practices are as follows:

1. The first offense will result in an equivalent grade of "F" being given for the particular test, project or paper on which the cheating has occurred. The instructor may require the student to demonstrate mastery of the objectives for the particular test, project, paper, the grade will remain an "F".
2. The second offense (two total offenses, not necessarily in one

course) will result in the student being assigned a failing grade for the course in which the second offense occurred.

3. Any student involved in three total offenses (not necessarily in one course) will immediately be dismissed from the College for one full academic semester. Upon readmission, a student who has been dismissed from the College for dishonest practices will be immediately dismissed upon any subsequent single offense involving a dishonest academic practice.

It is recognized by the College that the prime responsibility for academic honesty is the individual student. However, the instructor will endeavor to create a learning environment that discourages cheating and encourages honest scholarship. If a student feels that he/she has been wrongly accused, appeal procedures exist. The penalty for a proven case of dishonest scholarly practice will stand through appeal. If the appeal ruling is in favor of the student, the following will apply:

1. For the first offense, the test, project or paper will be graded on the criteria for that assignment.
2. For the second offense, the student's grade will be evaluated based on the criteria for the course.
3. For the third offense, the student will be reinstated to the College without penalty.

The instructor shall report all incidents of dishonest academic practice to the appropriate Dean and Department Chair. All reports of incidents of dishonest academic practice shall be maintained in the student's permanent file in the Office of the Registrar until the student graduates. The student will be notified in writing by the Dean of the consequences and has the right to appeal. The Dean shall see that appropriate action is taken and notify the instructor and Chair of the action taken.

I. Definitions

1. The term "College" means Owens Community College.
2. Student – includes anyone taking credit or noncredit courses at Owens, whether full-time or part-time, pursuing an Associate Degree, certificate, transfer credits or taking courses as a guest student.
3. Faculty member – refers to any person employed by Owens to teach classes.
4. Member of the college community – includes students, faculty, staff, administrators, or any person employed by Owens.
5. Premises – refers to all land, buildings facilities, and other property owned or used by Owens.
6. Disciplinary Administrator – Refers to any person authorized to determine whether a student has violated a code and to administer sanctions or consequences of actions (as outlined under the Disciplinary process).
7. Student Appeals Committee – Refers to any person or persons authorized by the Disciplinary Administrator to consider an appeal resulting from the "Disciplinary Administrator's" determination of a student's violation of the student conduct or from the imposed sanctions or consequences.

II. Disciplinary Authority

1. The Vice President of Student Services has been delegated authority to be responsible for the administration of the student codes of conduct. Disciplinary authority may be delegated to other college officials as deemed appropriate by the Vice President of Student Services.
2. Each faculty member is responsible for the conduct in class and is authorized to take necessary steps when student behavior disrupts the normal class setting. When behavior is so serious as to result in expulsion from class, the faculty member may remove a student from class for one day and may also require the student meet with the Vice President of Student Services to identify and set conditions for his/her return to class.
3. Campus Security Officials have been delegated the authority to act in the best interest of safety for the campus community on all premises governed by Owens Community College. Their authority includes the authority to cite a student for violation of the student code of conduct or dismiss a student from campus for the duration of a given day for which the student is found participating in behaviors that present a threat to the campus community.

III. Prohibited Conduct

A. Acts of Dishonesty

Include, but are not limited to, the following:

1. Cheating, plagiarism or other forms of academic dishonesty (as outlined in the Cheating and Plagiarism section of this Catalog)
2. Falsification or misrepresentation of any college document or record by forgery or alteration.
3. Furnishing false information to any college administrator, staff or faculty member.

B. Offenses against persons

Conduct that threatens or endangers the health or safety of any person including and not limited to physical abuse, verbal abuse, threats, intimidation, harassment, sexual contact without permission and coercion.

C. Offenses against property

1. The attempted theft, actual theft or unauthorized use or possession of university property or services, or that of persons within the Owens community.
2. Actual or threatened destruction of university or persons' personal property whether intentional or with reckless disregard.

D. Activities that disrupt order

Include conduct that unreasonably interferes with the function of classroom or college activities, whether College sponsored or not, such as engaging in violent, abusive, disruptive or disorderly behaviors in classes or on campus.

E. Activities that disregard health and safety

Participating in actions that threaten or endanger the safety, physical or mental health or life of any person in the campus community whether intentional or as a result of recklessness or gross negligence resulting from, but not limited to, the following:

1. Use, possession or distribution of illegal drugs, including drug-related paraphernalia on college premises.
2. Use, possession or distribution of alcoholic beverages on college premises.
3. Use or possession of dangerous weapons or devices, such as firearms, explosives, or dangerous chemicals, on College property, that are not authorized by the appropriate college official or permitted by college policy.
4. Participation in riotous behavior.

F. Violation of college policies, rules or regulations

Such regulations may include, but are not limited to, the computer policies, parking and traffic regulations, and policies that govern student organizations.

G. Violation of Federal, State and Local laws

Such violations include when a student is charged or convicted of an off-campus violation of a federal, state, or local law. In such instances, the college may proceed with disciplinary action independent of any criminal proceeding, and may impose sanctions for violation of the Student Code of Conduct even if the criminal proceeding is not yet resolved or is resolved in the student's favor.

H. Failure to comply with College authority

Failure to comply with legitimate directives of authorized college officials or law enforcement. This includes, but is not limited to, failure to identify oneself when requested or violation of a disciplinary sanction.