Institute of Technology

School of Engineering:
Engineering Graphics & Design
Drafting Program

Oklahoma State University
Institute of Technology
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ETDG 1192 Applied Autocad – Syllabus – Spring 2018

Section: 20024

Course Description:

Students will produce geometric figures using basic AutoCAD drawing and editing commands, and progress to advanced AutoCAD features that enhance productivity and accuracy. Drawings will be scaled and plotted according to industry standards. All learners will use the Windows operating system to manage drawing files, and will compare their time on a project with the minimum acceptable time allotted to a practicing technician for completion of the same task. In order to improve life-long learning skills, the learner will use written or on-line resources to independently determine a solution when presented with an unknown concept.

Course Purpose:

The purpose of this class is to teach advanced AutoCAD features. This will be accomplished by creating complex drawings, and by using proven design techniques.

General Information:

Type of course: Theory / Lab
Credit Hours: 2
Total clock hours of theory per semester: 30
Total clock hours of lab for the semester: 15
Additional lab work outside of class may be required
Class length: Full Semester
Class format: Face to Face / Online
Class days and times: M,W,F: 2:00pm – 3:25pm
Prerequisites: ETDG 1143

Instructor Information:

Instructor Name: Chris Burris
Instructor Phone: N/A
Instructor email: chris.burris@okstate.edu
Contact: My preferred method of contact is via email. Please allow 24-48 hours to return your correspondence during the normal work week.
Office: Reynolds Bldg. Room 212 inside Classroom 206
Instructor's Office Hours: M,W,F: 9:30am-11am (In office or classroom)
Division Name: School of Engineering
Division's Main Phone: 918-293-5150

Required Text, References, and Materials:

Texts: *N/A*
References: Learning, PDF file. Customizing AutoCAD Booklet in the bookstore
Software: Autodesk Autocad - $ Free to students.
Materials: Paper or notebooks, writing utensils, USB Flash Drive 1GB or larger - $15.
Estimated Total Costs: $15

Course Learning Assessment:

Upon completion of this course students will be able to do the following:

Course Outcomes:

1. Use CAD and Specialty CAD software to create complex drawings that fulfill industry standards.
2. Apply mathematical techniques to solve problems in Physical Science and Engineering.
3. Perform quantity estimates and calculations as they pertain to Design Drafting.
4. Determine the proper scale, dimension style fit and text size for a drawing that is printed to scale.
5. Recognize redundant design processes and apply creative solutions to increase productivity.

Course Objectives:

1. Utilize Computer Aided Drafting software.
2. Create drawings using orthographic projection.
3. Create drawings using geometric construction.
4. Research information from previous drawings, manuals or vender catalogs as needed for current project.
5. Create dimensions using ANSI standards and industry norms.
6. Create drawings using orthographic projection to determine overall dimensions.
7. Create typical and complex section view drawings.
8. Utilize Microsoft Office for documentation, presentations and calculations.
9. 3D Model a part.
10. Assemble two or more parts.
11. Create a drawing of a part or assembly.
12. 3D Model a complex project approved by the instructor.

Aspects of the course objective assessments may be used in the university's assessment of student learning.

Course Activities:

In this course students may be required to:

- Participate in class discussions and activities.
- View videos that depict the various concepts.
- Contribute to a course Service Learning project.
- Participate in group and individual presentations.
- Compile a portfolio of work produced.
- Take examinations and/or quizzes.
- Complete reading assignments.
- Complete work demonstrating abilities, methods, and processes.

Evaluation:

Grades will be based on the quality and completion of these areas:

Assignments	40%
Performance Tests	30%
Final Project	20%
Portfolio	10%
Total	100%

Grading Scale:

A : 100% - 90%
B : 89% - 80%
C : 79% - 70%
D : 69% - 60%
F : 59% - 0%

The student's grade for assignments will be used in the university's assessment of student learning. A 70% competency or higher receives a Pass rating. This Pass/Fail rating is independent of the student's course grade.

Daily and/or weekly quizzes, small weekly assignments and similar type projects: Normal return time to student is about one (1) week.

Extensive assignments, large lab projects, extensive quizzes, exams and similar type projects: Normal return time to students in about one (1) to two (2) weeks.

RECOMMENDED STUDENT COMPENTENCIES/SKILLS

A good working knowledge of computers, file management, Internet/webpage navigation, and note taking skills will be helpful in this course.

Authorized Tools:

Students are required to bring their own personal USB Flash Drive for saving files and drawings on. 1GB or larger recommended.
Students may use any/all course materials, including books and notes, while participating in classroom activities.

Late Work:

All assignments and Tests will have specific due dates and are expected to be completed and turned in before class time on that date. Students will be given ample time to complete all tasks before they are due. No late assignments or test will be accepted, any work turned in after it's designated due date WILL NOT be graded and result in a zero. There will be NO MAKEUP WORK offered for this course.

Testing:

All quizzes and tests are to be completed independently; no collaboration with classmates is permitted and any instance of such will be considered academic dishonesty. All exams must be taken on the date of the exam; there are NO MAKEUP EXAMS offered for this course.

Modules:

The course content for this course is organized into individual modules. Modules can be thought as a lesson unit, or a series of related topics, which will be covered in class. Each course module handout provides a list of the learning objectives, instructions and specifications for assignments and key terms. Assignments are in general due at the completion of a module.

Note that modules are organized by content and not by week. Therefore some weeks will have more than one module and some modules may take longer than a week to complete.

Presentations:

This course may require that students give one or more formal presentations to the class. On a presentation day, students are expected to be punctual, professional, and have all components of the assigned project with them, ready for presentation.

All students will be required to critique each presentation giving constructive positive and negative feedback. All students are asked to be respectful and tactful while reviewing others' works, and receptive to criticisms of their own work.

Online Learning Management Site (D2L / Brightspace):

All course materials will be provided through online access at: https://online.okstate.edu/

Students will have access to course materials, including modules, Power Point lectures, quizzes, assignments and resources. Students will also be required to submit all work through this online system, unless otherwise noted.

Student Progress:

Students can keep track of their grades and due dates using the online learning management site grade book and calendar features. Students who are averaging below a 70% after the 8th week should speak with the instructor.

Use of Copyrighted Materials:

Students are prohibited from using any copyrighted drawings, images, audio, footage and characters for the creation of their work. (ie. Celebrity photos, movie screen grabs, drawings of copy righted logos, characters, etc. and so forth). Students must use their own content for all assignments.

All Viewing Audiences:

All materials produced for this course must be appropriate for viewing audiences of all ages. Assignments MUST NOT contain any offensive language, graphic content, and suggestive themes (ex. sex, drugs and alcohol). Your instructor must first approve any content you are unsure of; chances are if you are unsure then it is not appropriate content. Any assignments turned in which breaks this rule WILL NOT be graded.

Key Terms:

Key Terms are Notes, Key Words, and Terminology about a specific subject. The Key Terms come from the test and are provided to you as a study guide. Do NOT simply write the definitions of Key Terms. Take the time to take Notes about, Research, Explore, and USE each Key Term. By completing the Key Terms you will have better scores on the tests.

Assignments File Name:

Unless otherwise noted in the module, all assignment file names should begin with the student's last name followed by an underscore and the lesson prefix, then the file extension. If the student's name is Stu Dent and his assignment is Module 01 A, and he is to turn in a MS word file, then the file name should be as follows: **Dent_Mod01A.doc**

Assignment files, which are NOT named in the following format, run the risk of not being graded. Ensure that you have correctly named your assignment before turning it in.

Professionalism:

Professional behavior is essential for successful student and effective learning environment. Therefore professional behavior is expected of all students. Students in this course are required to conduct themselves professionally in class. This includes the following behaviors, but are not limited to:

Appearance: A professional appearance includes professional attire, excellent personal hygiene, civility and poise, all qualities, which are quickly noticed by employers. Dressing for success means dressing the part of a successful professional, therefore we encourage students to wear business casual attire to class. Students are required to wear business attire at all formal events and presentations.

Collaboration: Collaborates with team members, adapts readily to different positions on the team; shows respect for all team members; remaining flexible and open to change; communicating with others to resolve problems.

Communications: Speaking clearly; writing legibly; listening actively; adjusting communication strategies to various situations.

Ethical Conduct: Submitting work of the student's own original creation; paraphrasing and citing all references; no lying, cheating, or plagiarism.

Integrity: Consistent honesty; prompt admission and correction of mistakes; trustworthy with the property of others and confidential information; value accuracy and thoroughness; avoids derogatory or demanding remarks.

Participation: Actively participates in class; volunteers for activities; asks questions and summarizes lesson content.

Preparedness: Bringing all required course materials (such as: text books, pencil, paper, flash drive) to each class period.

Respect: Being polite to others; not using derogatory or demeaning terms; appreciates the value of diversity; demonstrates clear, appropriate and cultural boundaries; behaving in a manner that brings credit to the profession.

Self – Confidence: Demonstrating the ability to trust personal judgment; demonstrating an awareness of strengths and limitations; exercises good personal judgment.

Self – Motivation: Taking initiative to complete assignments; taking initiative to improve and/or correct behavior; taking on and following through on tasks without constant supervision; showing enthusiasm for learning and improvement; consistently striving for excellence in all aspects of design and professional activities; accepting constructive feedback in a positive manner; taking advantage of learning opportunities

Time Management: Consistent in completing tasks and assignments on time; utilizing class time to the fullest.

Classroom Policies:

All classroom policies are in place to ensure a safe and productive learning environment. Violating any classroom policies may result in but not limited to, verbal reprimand in class, written reprimand with a copy placed in your records, expulsion from the classroom for the class period and possible expulsion from the course or school. These policies include, but are not limited to the following:

- A positive learning environment will be maintained at all times.
- Students are to behave professionally in the classroom, no feet on desks and chairs, no foul language, etc. Any unprofessional behavior will not be tolerated.
- Students are to maintain time-on-task. The way you spend your time is vital to your success in the program.
- No food or drink is allowed in the classroom. These items can easily damage expensive computers and electronic equipment.

- Use of personal electronic devices is not allowed in the classroom. Personal electronic devices include, but are not limited to; radios, TVs, tape players, CD players, MP3 players, handheld games, pagers, cellular phones, laptops etc.. All cell phones are to be turned off or set to vibrate before entering the classroom.
- Students may NOT surf the net, check e-mail or engage in similar activities during class time. Not only does it affect the person doing it, but also it is a potential distraction to others in the class.
- The School of Engineering computers and equipment are for educational use only and not personal use. Computers and equipment may only be used for school work for other classes or programs with the permission of all related instructors.
- No outside software installations will be allowed in the classroom. No games will be played on any classroom computer at any time.
- No printing during class lectures. No working on or printing of non-class related materials in the classroom.
- Avoid touching or pressing on the LCD monitors and forcefully striking the keys on the keyboards, or buttons on the mice. Be sure to shut down computer at the end of each class period.
- Downloading, uploading, streaming, sharing (peer to peer) of files not related to the class is strictly prohibited.
- Accessing or possession of illicit, offensive, obscene, or illegal materials/files is strictly prohibited and will result in disciplinary action up to and including suspension, expulsion, and/or legal action.

Online Course Interaction:

OSUIT requires all online courses to include interaction between students, peers and instructors.

Our online courses use a variety of tools to build a community of learners and strengthen engagement between students and their peers, as well as between students and the instructor. Communication tools used in courses may include Discussion, News, and Email. Read the syllabus completely to determine which of these methods you, your classmates and your instructor will use for interaction.

General guidelines for student conduct while interacting within an online course include: (1) Use proper language in all communications; (2) Harassment of any type will not be tolerated; (3) No jokes, insults or threats of an offensive nature.

For more information, go to: http://osuit.edu/center/netiquette

University & Course Expectations:

It is the responsibility of each OSUIT student to read, abide by and maintain a copy of the syllabus for this course. Syllabi are available on the OSUIT website.

Students understand that excerpts or portions of their work may be utilized for institutional assessment purposes. The purpose of institutional assessment is for verification of student learning and program improvement. Every effort will be made to keep this information confidential.

Additional OSUIT Campus Student Policies and Procedures are included in the syllabus attachmnet:

View the Syllabus Attachment, which contains other important information, by visiting http://osuit.edu/center/student_syllabus_information
It will also be in the Online Classroom (D2L/Brightspace) in the Content

It is the student's responsibility to read and abide by all policies and procedures.

Course Outline/Schedule:

WEEK:	MODULE:	TITLE:	CHPTR #:	DATE DUE:
1	00	Syllabus		
	01	Text Titleblocks, Prints		
2	02	Annotative Text and Dimensions		
	03	Parametric Drawings		
3	04	Blocks, Xrefs, Images		
	05	Blocks, Attributes		
4	06	Dynamic Blocks		
5		**FINAL PROJECT Part A**		
		Performance Test #1		
6	07	Custom Line Types and Hatch Patterns		
	08	Action Macros		
7	09	LISP programing		
8	10	Custom User Interface		
9		**Performance Test #2**		
	11	3D Modeling		
10	12	Advanced 3D		
11	13	3D Profiles and Dimensions		
12	14	3D Sectioning		
13	15	3D Assemblies		
		Performance Test #3		
14-15		**FINAL PROJECT Part B**		

*NOTE: This is a tentative schedule and may be subject to change.

Syllabus Disclaimer:

As with most technology courses this course is in a state of constant update in order to keep up with the ever changing technology and advancements in the field. This syllabus is not a contract, but a plan for action. The instructor reserves the right to alter its stipulations, upon prior notification to students, if and when educational and technological circumstances warrant changes.