



Engineering Graphics I – ENGR 1304.001

Course Syllabus: Spring 2020

“Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed.”

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	4:30pm+	-	-	-	-	-

This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.

Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

Course Description: M 5:00pm – 8:00pm

This course is an introduction in computer-aided drafting using CAD software and sketching to generate two- and three-dimensional drawings based on the convention of engineering graphical communication. Topics include spatial relationships, multiview projections and sectioning, dimensioning, graphical presentation of data, and fundamentals of computer graphics. Three credit hours.

Prerequisite(s): MATH 1314 College Algebra or equivalent with a grade of “C” or better

Student Learning Outcomes:

Upon successful completion of this course, students will

- 1304.1** Discuss the basic steps in the design process.
- 1304.2** Demonstrate proficiency in freehand sketching.
- 1304.3** Use geometric modeling and computer aided drafting and design (CADD).
- 1304.4** Communicate design solutions through sketching and computer graphics software using standard graphical representation methods.
- 1304.5** Solve problems using graphical geometry, projection theory, visualization methods, pictorial sketching, and geometric (solid) modeling techniques.
- 1304.6** Demonstrate proper documentation and data reporting practices.
- 1304.7** Complete a project involving creation of 3D rapid prototype models.

Evaluation/Grading Policy

Exams (2 @ 15% each)	30%
General Assignments/Quizzes	50%
<u>Final Exam</u>	<u>20%</u>
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Total	100%

Grading Scale:

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

Suggested Instructional Materials:

Richard, P., Fitzgerald, J. *Introduction to AutoCAD 2015: A Modern Perspective*, 2015

Publisher: Pearson Publishing

ISBN Number-978-0-133-14479-6

Autodesk Inventor 2017 Basics Tutorial, Tutorial Books, 2016.

Publisher: CreateSpace Independent

ISBN Number-978-1-536-97290-0

Note: The NTCC Bookstore link is at www.ntcc.edu

Minimum Technology Requirements:

A personal computer (or access to one) for completing homework.

Required Computer Literacy Skills:

- 1) Communicate via email;
- 2) Saving and reloading saved files;
- 3) Navigate Blackboard to access posted materials and assignments.

Course Structure and Overview:

This is a 16-week face-to-face course where students are required to access graded activities on Blackboard. A typical week involves class participation on material that is being covered on the day that we meet. Staying along with the instructor and vocalizing any questions will be key to student's success. Homework will typically be due by midnight the following class meeting. There will be a little bit of time allowed for any questions concerning the previously assigned homework at the start of class. Students are required to submit home via Blackboard.

Communications:

Emails will be responded to within 24 hours. Posts in the Discussion Forum, "Questions, Comments, and/or Concerns?" will be monitored by the instructor. Responses by the instructor will be within 72 hours following the post. Students are expected to abide by Netiquette rules when communicating online. See this link for details: [www. https://coursedesign.colostate.edu/obj/corerulesnet.html](http://www.https://coursedesign.colostate.edu/obj/corerulesnet.html).

The college's official means of communication is via your campus email address. Your instructors will use your campus email and Blackboard to communicate with you outside of class. Make sure you keep your campus email cleaned out and below the limit so you can receive important messages.

Institutional/Course Policy:

No late work will be accepted without prior approval by the instructor. It is the student's responsibility to check Blackboard for important information/announcements regarding the course. Students should be working on course material via Blackboard every week. Do not wait until the last minute to complete and submit assignments in case of technology issues.

NTCC Academic Honesty/Ethics Statement:

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information.

ADA Statement:

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to special population page on the NTCC website.

Family Educational Rights and Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

Tentative Course Timeline (*note* instructor reserves the right to make adjustments to this timeline at any point in the term):

Course Schedule: (Subject to Change)

<u>Weeks</u>	<u>Topics</u>	<u>Assignments</u>	<u>Due Dates</u> (Due by 11:59pm CST)
Week 1: 1/21/20 – 1/26/20	Martin Luther King’s Day	Online Introduction	
Week 2: 1/27/20 – 2/2/20	Quick Start Tutorial / Controlling the Drawing Display		2/3/2020
Week 3: 2/3/20 – 2/9/20	Basic Drawing Commands / Drawing Tools and Drafting Settings		2/10/2020
Week 4: 2/10/20 – 2/16/20	Managing Object Properties / Basic Editing Techniques		2/17/2020
Week 5: 2/17/20 – 2/23/23	Advanced Editing Techniques / Exam 1		2/24/2020
Week 6: 2/24/20 – 3/1/20	Drawing and Editing Complex Objects / Pattern Fills and Hatching / Adding Text		3/2/2020
Week 7: 3/2/20 – 3/8/20	Multiview Drawings / Dimensional Drawings		3/9/2020
Week 8: 3/9/20 – 3/15/20	Dimensioning Drawings / Exam 2		3/23/2020

3/16/20 – 3/22/20	Happy Spring Break!		
Week 9: 3/23/20 – 3/29/20	Autodesk Inventor Getting Started / Part Modeling Basics		3/30/2020
Week 10: 3/30/20 – 4/5/20	Part Modeling Basics / 3D Printer Basics		4/6/2020
Week 11: 4/6/20 – 4/12/20	Assembly Basics / Printing Parts		4/13/2020
Week 12: 4/13/20 – 4/19/20	Create Drawings		4/20/2020
Week 13: 4/20/20 – 4/26/20	Additional Modeling Tools		4/27/2020
Week 14: 4/27/20 – 5/3/20	Top Down Assembly and Motion Simulation		5/4/2020
Week 15: 5/4/20 – 5/10/20	Review for Final Exam		
Week 16: 5/11/20 – 5/21/20	Final Exam		