



Fall 2025
ENGR 1111 Section A (CRN 236)
Introduction to Engineering Graphics
Tuesday & Thursday, 12:30PM – 1:45 PM, 3 credit hours
Academic Building (ACAD) 215
Face-to-Face delivery format

Instructor Information	
Instructor:	Dr. ZABDAWI
Phone:	678-358-5839
Email:	mzabdawi@gordonstate.edu
Office:	IC 234
Student Hours:	T,R 3:30AM-5:30PM in TEAMS M,W 3:00PM-5:00PM in IC 234

Course Description:

This course covers the theory and application of the design process using conventional drafting as well as CAD techniques. Development and interpretation of drawings and specifications for product realization are covered, as are elements of projection theory that enhance the ability to communicate graphically.

Course Prerequisites:

MATH 1111.

Course Student Learning Outcomes (SLOs):

These are the learning outcomes that students are expected to achieve at the completion of the course:

1. Student can describe the elements of 3D visualization and good sketching technique.
 - a. Student prepares elementary sketches of 3D objects with correct interpretation of 3D geometry and topology and comprehend a sketch.
2. Student can describe the basic structure and content of engineering drawings.
 - a. Student sketches and uses 2-D computer-aided design software to draw multiview orthographic and other projections including isometric, auxiliary, and sectional views, and properly provides dimensions and tolerances and common drawing notation to a drawing.
3. Student can describe solid modeling and visualization.
 - a. Student generates 3-D parametric, feature-based solid models and generates two dimensional views from these three-dimensional solids.

- b. Student generates assembly models and uses rendering techniques and creates simulations and animations of the moving parts of an assembly.
4. Student can describe the visual, written, and team work requirements associated with engineering product realization.
 - a. Student can describe requirements for complete product specifications (e.g., drawings and technical specifications) and can read, understand, and interpret drawings (e.g., assembly, articulation, quantity take-offs).
 - b. Student works in a team project and can describe the importance of communication, scheduling, and attainment of project goals.

Course Communication

Upon admission to the college, all students are issued a Gordon State College e-mail account which should be checked on a regular basis. Gordon State College considers these e-mail accounts to be an official means of communicating college information to the students. Official course communication should be conducted using **GSC email**: from *your* GSC email address to the *instructor's* GSC email address. In your email message, please include the *course* and *section* you're in (e.g., ENGR 1111 A).

Personal appointments with your instructor—face-to-face or online—can be requested online using **Navigate** at <https://gordonstate.navigate.eab.com/>.

Course Format:

MODE OF DELIVERY: Face-to-face

Course Resources:

Required Text: Online membership to SolidProfessor at <https://www.solidprofessor.com/>. Details to be provided in class. Access codes to be bought from the bookstore. SolidProfessor class code: ZODIAC

Recommended Text: *Visualization, Modeling, and Graphics for Engineering Design*, 2nd Edition by Dennis K. Lieu and Sheryl A. Sorby, ISBN-13: 978-1285172958.

Course Assessments:

The course final grade will be computed on the following basis:

ASSESSMENT	PURPOSE OF ASSESSMENT	% OF GRADE
Engagement Work <ul style="list-style-type: none"> Participation, classroom* 	Demonstrates continual engagement and deep familiarity with course content, as well as the dedication to following a course schedule and course directions.	10%
Engagement Work** <ul style="list-style-type: none"> Unit video lesson viewing Unit review tests Unit practice exercises 	Demonstrates continual engagement and deep familiarity with course content, as well as the dedication to following a course schedule and course directions.	15% 15% 10%

Engagement Work • Class Project	Demonstrates continual engagement and deep familiarity with course content, as well as the dedication to following a course schedule and course directions. Due last day of class.	20%
Midterm Exam**	Demonstrates knowledge of course content.	15%
Final Exam**	Demonstrates knowledge of course content.	15%
* Participation involves presence, punctuality, preparedness, attention, respect, and active engagement. ** See course schedule for due dates.		

Grade conversions are: 90-100% (A), 80-89% (B), 70-79% (C), 60-69% (D), and 59% and below (F).

TYPE OF ASSIGNMENT	TURNAROUND TIME TO GRADE
Review Tests	Graded automatically and available immediately in Solid Professor
Assignments: Sketches, Parts, Assemblies	5-7 business days (M-F) Due in D2L Assignment Folder.
Class Project	Graded at the end of the semester
Midterm Exam	Graded automatically and available immediately in Solid Professor
Final Exam	Graded automatically and available immediately in Solid Professor

Students should check this My Courses (Brightspace by D2L) course daily, as changes will always be announced and recorded on the course site.

Late Work:

Late assignments will be accepted but with 20% penalty for late submission. Penalty will be waived for legitimate documented excuse.

Final Exam Details:

Final Exam: In December TBA.

COURSE CALENDAR:

See the course calendar in the syllabus addendum.

College-wide Statements:

- ATTENDANCE POLICY**

Class attendance is expected of all students enrolled at Gordon State College. Being prepared for class in advance and participating on a regular basis is a vitally important ingredient for academic success. Research continually shows that poor attendance and/or limited participation usually results in low grades.

However, because the delivery mode, content, assignments, and other particulars for each class section vary so widely, Gordon State College does not specify an official campus-wide attendance standard. Nonetheless, students who are absent with the approval of the Office of Academic Affairs will be permitted to earn credit for work missed during their absences. In addition, with the prior approval of the Academic Affairs office, dual enrollment students who are absent will also be permitted to earn credit for work missed during their absences. Approval of such activities will be granted by the Academic Affairs Office and posted online at [Approved Absences](#). Such excused absences are reserved for situations in which students are representing their school or the college. All students are responsible for contacting instructors prior to all **excused** absences in order to arrange to make up any missed work. Whether the absence is excused or not is decided **by the instructor**, and that decision is **final**. Instructors will determine reasonable accommodations for excused missed coursework that best fit the circumstances of their course. Examples of reasonable accommodations might include but are not limited to:

- Rescheduling of an individual's quiz or exam
- Revising the deadline for any out-of-class assignment at the instructor's discretion
- Creating an alternate assignment with an equivalent grade

At the beginning of each semester, every instructor will distribute a course syllabus and clearly state his or her attendance policy. It is the student's responsibility to inquire of the instructor if there are questions.

A WF (Withdrawal while Failing) grade will be assigned as the final grade if the student stops attending class after mid-term.

The instructor will notify the Registrar's Office in writing if a student receiving veteran's benefits is absent from a class three consecutive weeks in a Fall or Spring semester, two consecutive weeks in a full session Summer semester, or one week in a half session Summer semester.

Field trips and extracurricular activities which require a student's absence from class must be approved by the Provost; however, final approval for class absences remains with the individual instructor.

Every semester, faculty will provide electronic verification of class attendance for each student on each official class roll following procedures outlined by the Registrar. Class rolls become official at the close of the drop-add period each semester. Faculty enrollment verification is due on the tenth calendar day of fall and spring semesters and as announced for summer semester. Students reported as never attending a class by this date will be removed from the official class roll.

- For students who do not receive financial aid, loans or scholarships, tuition and fees will be recalculated after the class is removed from the schedule. If appropriate, a refund will be issued to the student.
- For students receiving financial aid, loans or scholarships, tuition and fees will be recalculated after the class is removed and financial aid, loans or scholarships will

be adjusted accordingly. This adjustment could result in a reduction of aid awarded or loss of loan or scholarship funds.

- No student will be enrolled in a class after the close of the drop/add period

Individual faculty may establish additional attendance requirements appropriate to their course's context, e.g. lab attendance. A student whose class schedule would otherwise prevent them from voting will be permitted an excused absence for the interval reasonably required for voting.

- **COMPUTER & ELECTRONIC EQUIPMENT USAGE POLICY**

- The rules stated below are (1) to assure that all College property, including, but not limited to, computer hardware and software, electronic and telephone systems are used for business purposes only, (2) to assure that all internal proprietary information is safe- guarded, and (3) to advise employees and students that College equipment is not to be used to store or transmit information or items which they consider to be private or personal. The fact that the College may not have enforced these policies in the past should not be interpreted to mean that the College cannot enforce them now or in the future. Only current faculty, staff, and students may use the College computer equipment, electronic equipment and software.
- Students may use college computers and software for class assignments, term papers, projects, and/or tutorials for their courses.
- Computer software is protected by United States copyright law. Most software manufacturers allow for use of software in classes or computer labs. The College does not condone use of its software for any other purpose.
- Disk/files are subject to inspection by Gordon State College. Those found to contain unauthorized copies of copyrighted software will be erased.
- In classes where computer networks are used, students may use only usernames, passwords, and files authorized by their instructor.
- Unauthorized changes to machine configurations, system configuration programs, or batch files are prohibited.
- Unauthorized additions, deletions, or modifications of application software are prohibited.
- Gordon State College equipment cannot be used to type, transmit, or print harassing, offending, illegal, sexually suggestive, or inappropriate messages.
- All systems belonging to Gordon State College are subject to monitoring. The College reserves the right to enter and review all computer databases and electronic transmissions, including but not limited to, computer, electronic, and telephone systems.

Anyone who uses the College's computers and electronic equipment acknowledges and agrees to observe these policies.

- **STANDARDS OF ACADEMIC CONDUCT AND STUDENT INTEGRITY**

- Gordon State College Academic Dishonesty Policy - When a faculty member becomes aware of an act of academic dishonesty, the faculty member may penalize

the act in one or any combination of five ways depending on the faculty member's assessment of the severity of the infraction.

1. Assign a grade of F for the assignment and/or require remedial action by the student.
2. Assign a grade of 0 for the assignment and/or require remedial action by the student.
3. Assign a failing grade in the course.
4. Assign penalties as stated in the course syllabus.
5. Refer the matter to the Dean of the School.

In addition, after having dealt with the act of academic dishonesty, the faculty member should send a brief memorandum to the Dean of the School identifying the student, the infraction, and the resolution. Academic deans will report egregious cases to the Dean of Students for placement in student record and potential additional action.

If the student wishes to contest the faculty member's decision, the student may appeal the decision to the Department Head and then the Dean of the School using the Academic Request process. When the matter reaches the School Dean by faculty member referral or student appeal, the Dean may ask the Academic Judicial Committee to consider the matter and make a recommendation. As stipulated in the Student Code of Conduct found later in this catalog, the student may appeal the Committee's recommendation to the Provost and Vice President for Academic Affairs. When the deliberations are concluded, the Provost and Vice President for Academic Affairs will communicate the decision to both the student and the faculty member.

If the Dean of Students receives memoranda reporting two different incidents of academic dishonesty by the same student and neither case is overturned by appeal in the Office of Academic Affairs, the student will be summoned to the Student Affairs Office for appropriate disciplinary proceedings.

Additional Definitions (adapted from Metropolitan College of New York)

- **Cheating** is receiving or providing unapproved help in any academic task, test or treatise. Cheating includes the attempt to use or the actual use of any unauthorized information, educational material, or learning aid in a test or assignment. Cheating includes multiple submission of any academic exercise more than once for credit without prior authorization and approval of the instructor.
- **Plagiarism** is presenting someone else's work as though it is your own. In an academic community, the use of words, ideas, or discoveries of another person without explicit, formal acknowledgment constitutes an act of theft or plagiarism. To avoid the charge of plagiarism, students must engage in standard academic practices such as putting quotation marks around words that are not their own, employing the appropriate documentation or citation, and including a formal acknowledgment of the source in the proper format. Students are expected to use the proper MLA or APA format for citations. Online guides for MLA and APA can be found at <https://owl.purdue.edu>.

- **Fabrication/falsification** involves inventing or falsifying any data, information, or records.
 - **Obstruction** is impeding the ability of another student to perform assigned work.
 - **Collusion** constitutes assisting with any of the above conduct or knowingly and voluntarily performing work that another student presents as their own.
 - **Use of AI** will be determined by the faculty member.
- **Title IX & Mandatory Reporter Information:** Gordon State College is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence and stalking. If you (or someone you know) has experienced or experiences any of these incidents, know that you are not alone. Please know also that all faculty members at GSC are mandated reporters. Any student reporting any type of sexual harassment, sexual assault, dating violence, domestic violence, or stalking must be made aware that any report made to a faculty member under the provisions of Title IX will be reported to the Title IX Coordinator or a Title IX Deputy Coordinator. If you wish to speak with someone confidentially, you can contact the Counseling and Accessibility Services via the email above. The licensed counselors in the Counseling Office can provide confidential support. GSC does not discriminate against any student on the basis of pregnancy, parenting, or related conditions. Students seeking accommodations on the basis of pregnancy, parenting, or related conditions should contact Counseling and Accessibility Services at the email above regarding the process of documenting pregnancy related issues and being approved for accommodations, including pregnancy related absences as defined under Title IX.”
 - **ADA, IEP, and 504:** If you have a documented disability as described by the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973, Section 504, you may be eligible to receive accommodations to assist in programmatic and/or physical accessibility. The Counseling and Accessibility Services office can assist you in formulating a reasonable accommodation plan and in providing support in developing appropriate accommodations to ensure equal access to all GSC programs and facilities.” Contact Counseling and Accessibility Services at aliciad@gordonstate.edu
 - **COVID updates:** <https://www.gordonstate.edu/corona-virus/index.html>
 - **Religious Holidays:** GSC acknowledges that the academic calendar can sometimes conflict with major holidays from among our diverse religious traditions. If you need to miss class to observe a religious holiday, just let me know beforehand so we can figure out how you’ll get your work completed.
 - **School-Related Absences:** If you need to miss class because of a school-related activity (sports, field trips, etc.), please contact the instructor.
 - **GA House Bill 280:** See the University System of Georgia at the following link <http://www.usg.edu/hb280>.

Miscellaneous Student Resources:

- **Tutoring:** The GSC Student Success Center provides tutoring services for students on a variety of topics. [They also provide online academic resources. Please see the Student Success Center's website for more information.](#)
 - **NetTutor** This free online tutoring is available 24/7 via D2L. To access, select “Tools/Resources” from within the D2L course. Then select “NetTutor” & pick the subject. Leave a question or start live tutoring (link to tutoring hours will be in upper right corner). You can use the chat feature or ask tutor to turn on audio. These sessions are recorded, so you can watch them multiple times.
- **D2L:** Brightspace by D2L is GSC's online learning management system (LMS). Course materials and your gradebook are housed on D2L. Here are the instructions for getting into our course:
 - Go to the GSC homepage at <https://www.gordonstate.edu/>.
 - Choose “My Gordon” link (top middle of page).
 - Choose “Brightspace by D2L”.
 - Log in with GSC email username (do not include @gordonstate.edu) and current GSC email password.
 - Once D2L opens, choose our class under the “My Courses” widget (on far right of page).
 - Choose “Content” on the course navigation bar at top to view our course materials.
 - Note that you cannot see any of your courses in D2L until the first official day of classes. If you add the class in Banner Web during the Drop/Add period, it will take an overnight process for you to be added into D2L.
- **Assistance with D2L:**
 - If you cannot log in, [consider resetting your password here](#) (passwords must have uppercase letters, lowercase letters, numbers/symbols, must be at least 10 characters and cannot include name/username).
 - If you still cannot log in or if you have some other weird problem, then email d2lhelp@gordonstate.edu and provide your name, your 929 number, and the course/section information. This email is checked M-F, 8-5.
 - You also have access to a 24/7 Live Chat hosted by the University System of Georgia. [Chat live here.](#)
- **Assistance with computer hardware** (i.e., loading Microsoft Office, removing a virus from your computer, etc.)
 - You can call GSC Information Technology at 678-359-5008. They are open M-F 8-5. If you leave a voicemail, please include your name, 929 number, a brief description of the problem, and a call-back number.
 - You can go to GSC Information Technology in the Instructional Complex Building, room 109.
- **Computers on Campus:** There are computers all over the campus if you need to use one, including in the first-floor computer lab of the Instructional Complex (IC), as well as in Academic, Russell, Smith, Nursing & Allied Health Services, Hightower Library, and the

Student Success Center. If you live in the residence halls, there are computer labs located there as well.

- **Counseling and Accessibility Services Office:** If you (or someone you care for at GSC) feels overwhelmed, depressed, or in need of support, Telehealth for mental health counseling is available 24/7/365 through UWILL at <https://app.uwill.com>
 - Please know that there is also a 24-hour mental health support line: **833-646-1526**.
 - Please feel free to contact the office with any questions at **678-359-5585**.
- **Highlander House:** If you or someone you know is facing food insecurity or needs toiletry items, check out this free student success resource: SARC 113.
- **Career Services Center:** Our Career Services Center offers many forms of assistance for you, such as Kuder Interest Assessments; Career readiness, preparation, & assistance; internship preparation & opportunities; Toastmasters; Professional Development Events; and Community Engagement & Service-Learning opportunities (328 Lambdin Hall, **678-359-5719**).
- **Library Services:** The Hightower Collaborative Learning Center & Library offers Gordon State students specialized library research assistance. Students can meet with their personal librarians for one-on-one help in each discipline, major, or course to search and evaluate information sources effectively. Go to <http://libcal.gordonstate.edu/> to schedule an appointment by clicking the Personal Librarian tab or click on the Presentation Practice Room tab to make a reservation. For immediate help, call **678-359-5076** or stop by the Circulation/Check-Out Desk. You can also Ask A Librarian or drop by the Circulation/Checkout Desk. Check the library's web site for hours, electronic resources, and LibGuides (subject- or class specific research guides).

Week	Dates	Topic / SolidProfessor Link	Assignment	Due
Week 1	Oct 8–10	Course intro, lab orientation, file management	Assignment 1 – Hexagonal bolt with threads	Oct 16
Week 2–3	Oct 15–24	Spatial Visualization + Engineering Graphics	Continue A1, Review Tests due	Oct 23
Week 4	Oct 27–31	<i>Introduction to Sketching</i>	Assignment 2 – L-Bracket with Slot (focus on constraints, relations)	Nov 13
Week 5–6	Nov 4–13	<i>Features & Part Design / Revolve & Pattern</i>	Assignment 3 – Revolved Knob or Wheel Hub	Nov 18
Week 7	Nov 18–25	<i>Assembly Design</i>	Midterm Project – Simple Two-Part Assembly	Nov 25
Week 8	Dec 2–3	<i>Drawings Module</i>	FE (Formative Evaluation) – Timed modeling + short reflection	Dec 5
Finals	Dec 9	Final Project – Creative Design Challenge	Final Project due	Dec 2

See Addendum on next page...

ADDENDUM, Course Schedule *

Week	Due Dates	Topics
1	10/9/25	// First day of GSC classes
2	10/16/25	Recommended reading: Ch 01, Intro to Graphical Communication in Engineering SolidProfessor: Spatial Visualization
2	10/16/25	Recommended reading: Ch 02, Sketching SolidProfessor: Spatial Visualization
3	10/23/25	Recommended reading: Ch 03, Visualization SolidProfessor: Engineering Graphics
4	10/28/25	Recommended reading: Ch 04, Creativity and the Design Process SolidProfessor: SOLIDWORKS Beginner to Certification, Intro to Sketching
5		
6	11/10/15	Last Day to Withdraw
6	11/13/25	Recommended reading: Ch 05, Solid Modeling SolidProfessor: SOLIDWORKS Beginner to Certification, Features and Part Design
6	11/13/25	Recommended reading: Ch 06, Assembly Modeling SolidProfessor: SOLIDWORKS Beginner to Certification, Features and Part Design
6	11/13/25	Recommended reading: Ch 07, Design Analysis SolidProfessor: SOLIDWORKS Beginner to Certification, Features and Part Design
6	11/13/25	Recommended reading: Ch 08, Orthogonal Projection and Multiview Representation SolidProfessor: SOLIDWORKS Beginner to Certification, Features and Part Design
6	11/13/25	Recommended reading: Ch 09, Pictorial Drawings SolidProfessor: SOLIDWORKS Beginner to Certification, Revolve and Pattern
6	11/13/25	Recommended reading: Ch 09, Pictorial Drawings SolidProfessor: SOLIDWORKS Beginner to Certification, Revolve and Pattern
6	11/13/25	Recommended reading: Ch 10, Section Views SolidProfessor: SOLIDWORKS Beginner to Certification, Revolve and Pattern
6	11/13/25	Recommended reading: Ch 11, Auxiliary Views SolidProfessor: SOLIDWORKS Beginner to Certification, Revolve and Pattern
7	11/18/25	// Midterm
8	11/25/25	Recommended reading: Ch 12, Dimensioning SolidProfessor: SOLIDWORKS Beginner to Certification, Assembly Design
8	11/25/25	Recommended reading: Ch 13, Tolerancing SolidProfessor: SOLIDWORKS Beginner to Certification, Assembly Design
8	11/26-11/28	// Thanksgiving Break
9	12/3/25	Recommended reading: Ch 14, Working Drawings SolidProfessor: SOLIDWORKS Beginner to Certification, Drawings
9	12/3/25	SolidProfessor: SOLIDWORKS Beginner to Certification, Certified SOLIDWORKS Associate
9	12/2/25	Final Project is Due
10	12/5/25	// Final Exam, Friday 12/5/25, 12:00PM-2:00PM, Academic Building 215

** This course syllabus provides a general plan for this course. The Instructor reserves the right to make changes to the syllabus, including changes to assignments, projects, examinations, etc., in order to accommodate the needs of the class as a whole and fulfill the goals of the course.*

** Schedule is tentative, and subject to change with natural pace of the class, interruptions due to weather, campus closures, etc.*