

Technical Drawing & Visualization

CGN 2328 Section 24395,24396

Class Periods: M/W,7-8, and 1:55 PM- 3:50 PM
T/TH,8-9, and 3:00 PM- 4:55 PM

Location: On Zoom

Academic Term: Fall 2020

Instructor:

Name Dr Sarah Jayasekaran

Email Address srajkumari@ufl.edu

Office Phone Number

Office Hours: Wednesday 5-6 (11:45 am- 1:40 pm)

Teaching Assistant/Peer Mentor/Supervised Teaching Student:

Please contact through the Canvas website

- NA

Course Description

Two- and three-dimensional graphical methods of visualizing and communicating features of projects for construction involving parcel boundaries, topography, drainage, site modeling, site development, structures, buildings and objects using both traditional and computer-aided drafting and design techniques.

Course Pre-Requisites / Co-Requisites

Knowledge of construction and surveying would be a great benefit, but is not necessary. Building construction practices and processes will be explained as necessary. Working knowledge of arithmetic is strongly recommended.

Purpose of course:

The purpose of this course is to provide each student with the required tools to visualize a 3-D world and represent it in two dimensions using graphical methods. This is accomplished through the use of manual drawing techniques and Computer-Aided Drafting (CAD) whereby a student will prepare the necessary information in the form of standard engineering drawings. Learning AutoCAD will give students' abilities of using their skills in industry.

Course Objectives

By the end of this course, students will:

- Have a working knowledge of AutoCAD
- Have a working knowledge of basic plans reading
- Be able to use engineer's and architect's scales to interpret construction documents
- Be able to create and compile an entire set of construction documents
- Develop or improve spatial visualization skills

Materials and Supply Fees

NA

Required Textbooks and Software

NA

There is no required text. All information regarding the course will be provided through the course website and class lecture notes.

Recommended Materials

AutoCAD has a multitude of online resources (the help files in the program are very good as well for specific issues). If you wish to see a text book, you can access the UF library resources online and search for books (I would suggest limiting your search to the previous 5 years) and view textbooks associated with AutoCAD.

Course Schedule

See weekly schedule

Course communications:

I will do my best to help you succeed in this class. I will respond to your questions either in the class or through e-mails or in breakout room discussions.

General communication guidelines:

- Treat instructor and fellow students with respect
- Use clear and concise language.

Email guidelines

- For general inquiries regarding the course please email the instructor.
- If you do not get a response within 24 hours, please email again. If you email me on the weekend, expect me to respond after 48 hours.
- Treat instructors with respect, even in email or in any other online communication.
- When emailing the instructor please refer to me as Dr Jay. Have the course code in the subject line.
- Example: CGN 2328 – Need an appointment on zoom

Breakout room guidelines:

- Before posting a question to a discussion board, check to see if anyone has already asked it and received a reply.
- Remember your manners and say please and thank you when asking something of your classmates or instructor.
- Always be respectful of others' opinions even when they differ from your own.
 - When you disagree with someone, you should express your differing opinion in a respectful, non-critical way.
 - Do not make personal or insulting remarks.
 - Do not write anything sarcastic or angry, it always backfires.
 - Do not type in ALL CAPS, if you do IT WILL LOOK LIKE YOU ARE YELLING.

Attendance Policy, Class Expectations, and Make-Up Policy

Attendance policy:

Attendance for lecture is mandatory. Attendance will not be recorded. PowerPoint lectures will be made available, however, these types of lectures only comprise approximately 30% of the course. The other material presented will be done in AutoCAD without substantial supplement.

If you are sick, you MUST go to see a doctor and get a doctor's note; otherwise the absence will not be excused. The office hours will be posted on canvas, if you cannot attend them, please contact the instructor and make an appointment to meet on zoom.

How to send an excuse: Email Dr. Jay at srajkumari@ufl.edu

Use the Following Subject line: CGN 2328: Absence Excuse

What constitute a valid excuse?

Excused absences are consistent with university policies in the undergraduate catalog and require appropriate documentation. Absences will be excused under the following conditions:

- 24 hours ahead of time that you have a legitimate, unavoidable absence (such as an exam conflict for a higher-numbered academic course)
- A verifiable medical or family emergency
- Travel for a student conference—provided all excuse request prior to travel § Need to come to class late or leave early for a legitimate reason
- Email instructor at least 24 hours before missing class due to interview confirmation email; conference email; UF official sporting event

Attendance guidelines:

Excused absences must be consistent with university policies in the undergraduate catalog (<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>) and require appropriate documentation.

Basic Responsibilities Expected from You:

Attending the class is critical. The material you will learn is invaluable. In case of absence, you can ask a class mate for lecture material, use your book, and access supporting slides on Canvas.

- Don't be afraid to ask for help during class or office hours.
- Be an active learner - ask yourself questions during lectures, as you read, and as you attempt assignments.
- Study in advance and go to office hours. Don't wait until the day before the exam, forms, or Lab to get clarification on the material.
- Check Canvas for class updates, assignments, announcements, lessons, calendar, and resources. If using a laptop and other devices in class, you shouldn't be on Facebook, Netflix, Hulu, etc. or do other things that are not class-related. When instructor asks you to put your device away, please do so.
- Recording the lecture is not allowed using any type of media. If you need special accommodations, please contact your instructor.
- You need to notify your instructor if your need accommodation from the Disability Resource Center. I would love to help you out. Let me know within the first two weeks of the start of the semester.

Emails, Announcements, Feedback, and Communications

- Announcements will be shared periodically during class and on Canvas. Is your responsibility to attend to class and read the emails/announcements from Canvas.
- After each assignment is graded, you are responsible for reviewing your instructor's feedback.
- Emails, announcements, and feedback may occur outside business hours.
- Your instructor should respond within 24 hrs. during workdays (M-F). There is not guarantee of response during weekends. Plan accordingly.

Instructional Methods:

The course is structured to teach students how to use AutoCAD software to prepare construction documents starting at the very beginning (setting up drawing units and drawing single lines) up through creating three-dimensional structures; including creating items that help convey information (dimensions, text, tables, etc.) Much like the process of constructing a building, creating a set of construction documents requires the student to understand the final goals of the project, along with every element along the way to make the goal successful. Working in AutoCAD is procedural; therefore, thinking procedurally (and

thinking ahead) will help students succeed in this course. Do not be afraid to be wrong, being wrong is a requirement for learning.

Quiz/exam policy:

There will be two 50-minute written examinations given in class throughout the semester. The exams will be a combination of AutoCAD and Visualization material taught in the lectures and labs. Computer exam will test your skills using the AutoCAD software.

Make-up policy:

Make-ups will not be provided unless an acceptable excuse is furnished with documentation. Acceptable excuses include: illness (with doctor's note), jury duty (with documentation and prior notification), and military service (with documentation and prior notification).

Assignment policy:

The course is comprised of two exams, one computer exam, nine lab assignments, and a series of hand drawing assignments. No late submissions are allowed unless there is a valid excuse
See: Attendance Policy for valid excuse

Course technology:

AutoCAD (and AutoDesk software) is used to prepare 65% of the course assignments. Downloading the program to your personal computer is mandatory. This is a very resource-heavy program, and older/less powerful computers may struggle with this program. You should download AutoCAD 2021 (NOT AutoCAD LT; AutoCAD for Mac is available, but the instructor cannot guarantee that they will be able to help you with it).

To download the software, you will need to go to the student AutoCAD website (<https://www.autodesk.com/education/free-software/autocad>) and create an account (do not download a free trial; that is a 30 day license whereas creating an account lets you use the software for 3 years). Then download AutoCAD 2021, on the course website, the instructor will upload several files that will help you customize/set up the program, and there will also be configuration files.

Course supplies:

This course requires the use of a few tools; the following are required for the hand-drawing assignments:

- Engineer's Scale (6-sided ruler)
- Architect's Scale (6-sided ruler)
- 30-60-90 triangle
- 45-45-90 triangle

For working at home on AutoCAD assignments, it would be in your best interest to get a mouse with scroll wheel. The scroll wheel provides a very large amount of flexibility in the program and using a trackpad is very cumbersome.

Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
Form (5)	10 each	10%
Labs (3)	100 each	40%

Midterm Exam	100	12.5%
Final Exam	100	12.5%
Computer Exam	100	25%
Participation	5	5%
		100%

Grading Policy

The following is given as an example only.

Percent	Grade	Grade Points
93.4 - 100	A	4.00
90.0 - 93.3	A-	3.67
86.7 - 89.9	B+	3.33
83.4 - 86.6	B	3.00
80.0 - 83.3	B-	2.67
76.7 - 79.9	C+	2.33
73.4 - 76.6	C	2.00
70.0 - 73.3	C-	1.67
66.7 - 69.9	D+	1.33
63.4 - 66.6	D	1.00
60.0 - 63.3	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Grading Policies:

Any grading issues must be brought to the attention of the Instructor within 5 business days of when the assignments are returned to the class. After 5 days the grade would be considered finalized and cannot be appealed. Do not ask for a grade curve without reason, or extra credit assignments. These requests will not be entertained; should there be a need for the entire class's grades be curved, a curve will be applied at the sole discretion of the instructor.

The labs, exams, forms will be graded in 2 weeks or less time. No late submissions are allowed.

In case of any exception for submission the instructor holds the right to return the grade after the grading for the rest of the class has been provided.

Policy on Grading Disputes:

You must submit any grading disputes to me (Dr Jay) within one week (5 calendar days) of your assignment grade being posted. After that the grades are locked and cannot be appealed. Please review the comments, and if available, the solution, and the rubrics. Follow up immediately with me if you have a legitimate grading dispute. Please be aware that I will regrade the deliverable which can cause your grade to go up or down. Please submit in written (e-mail) justification as to why you think your assignment needs to be regraded and state that you are aware of the possibility to get your grade to increase or decrease because of the re-grading.

Dropping of grades:

Because "things happen" all students are allowed to drop one Form

Getting Help

For issues with technical difficulties for E-learning, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluer.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

University Honesty Policy

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Commitment to a Safe and Inclusive Learning Environment

The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:

- Your academic advisor or Graduate Program Coordinator
- Robin Bielling, Director of Human Resources, 352-392-0903, rbielling@eng.ufl.edu
- Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
- Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules,

disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <https://registrar.ufl.edu/ferpa.html>

Campus Resources:

Health and Wellness

U Matter, We Care:

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Discrimination, Harassment, Assault, or Violence

If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the [Office of Title IX Compliance](#), located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, title-ix@ufl.edu

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. <https://lss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <https://teachingcenter.ufl.edu/>.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. <https://writing.ufl.edu/writing-studio/>.

Student Complaints Campus: <https://care.dso.ufl.edu>.

On-Line Students Complaints: <http://www.distance.ufl.edu/student-complaint-process>.

