

Department of Civil Environmental and Geomatics Engineering
Florida Atlantic University Course Syllabus

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| Course objectives | <ul style="list-style-type: none"> I. Ability to correctly depict design using accepted engineering drawing conventions, including dimensioning, lettering, views, title blocks, space layout and perspectives II. Ability to utilize electronic software to create professional quality engineering drawings of objects III. Ability to use appropriate conventions to draw maps of site information as might be needed for site planning | |
| | <ul style="list-style-type: none"> IV. Ability to translate one-dimensional drawings to three-dimensional objects using REVIT or Civil3D software | |
| ABET a-k outcomes | <ul style="list-style-type: none"> 1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics 2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors 3. an ability to communicate effectively with a range of audiences 4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts 5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives 6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions 7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies | |
| Student learning outcomes & relationship to ABET a-k objectives | <ul style="list-style-type: none"> A The ability to construct 2-D and basic 3-D drawings (1, 3-7). B. The ability to construct 3-D Model using REVIT (1, 3-7). C. Ability to complete a simple, but meaningful, engineering project using AutoCAD (1, 3-7). D. Develop the appropriate AutoCAD technical knowledge to enhance communication and presentation skills (1, 3-7). | |
| Relationship to Civil Engineering educational objectives | Objective A: Practice civil engineering within the general areas of structural engineering, transportation engineering, geotechnical engineering, and water resources/environmental engineering in the organizations that employ them. | M |
| | Objective B: Advance their knowledge of civil engineering, both formally and informally, by engaging in lifelong learning experiences including attainment of professional licensure, and/or graduate studies. | L |
| | Objective C: Serve as effective professionals, based on strong interpersonal and teamwork skills, an understanding of professional and ethical responsibility, and a willingness to take the initiative and seek progressive responsibilities. | M |
| | Objective D: Participate as leaders in activities that support service to, and/or economic development of, the region, the state and the nation | L |
| Relationship to Geomatics Engineering educational objectives | Objective A: Practice geomatics engineering within the general areas of boundary and land surveying, geographic information systems (GIS), photogrammetry, remote sensing, mapping, geodesy, and global navigation satellite positioning systems in the organizations that employ them. | M |

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| | Objective B: Advance their knowledge of geomatics engineering, both formally and informally, by engaging in lifelong learning experiences including attainment of professional licensure, and/or graduate studies. | L |
| | Objective C: Serve as effective professionals, based on strong interpersonal and teamwork skills, an understanding of professional and ethical responsibility, and a willingness to take the initiative and seek progressive responsibilities. | M |
| | Objective D: Participate as leaders in activities that support service to, and/or economic development of, the region, the state and the nation. | L |
| Relationship to Environmental Engineering educational objectives | Objective A: Practice environmental engineering within the general areas of water and wastewater, air quality, solid and hazardous waste, and groundwater and soils in the organizations that employ them. | M |
| | Objective B: Advance their knowledge of environmental engineering, both formally and informally, by engaging in lifelong learning experiences including attainment of professional licensure, and/or graduate studies. | L |
| | Objective C: Serve as effective professionals, based on strong interpersonal and teamwork skills, an understanding of professional and ethical responsibility, and a willingness to take the initiative and seek progressive responsibilities. | M |
| | Objective D: Participate as leaders in activities that support service to, and/or economic development of, the region, the state and the nation. | L |
| 8. Course evaluation method | | |
| Homework Assignments: | 70% | Note: The minimum grade required to pass the course is C. |
| Project/Final Exam | 30% | |
| 9. Course grading scale | | |
| Course grades are assigned according to the attached Department of Civil, Environmental & Geomatics Engineering Grading Guidelines. Additional requirements may be given by the instructor. | | |
| 10. Policy on makeup tests, late work, and incompletes | | |
| <ol style="list-style-type: none"> 1. Exams will be given only at the scheduled times and places. No one is exempt from the final examination. 2. Makeup tests are given only if there is solid evidence of a medical or otherwise serious emergency that prevented the student of participating in the exam. Makeup exams will be administered and proctored by department personnel unless there are other pre-approved arrangements. 3. Late work is not acceptable. 4. Incomplete grades are against the policy of the department. Unless there is solid evidence of medical or otherwise serious emergency situation, incomplete grades will not be given. | | |
| 11. Special course requirements | | |
| You must have a Dropbox account capable of >20MB of space. If you do not, you will need to acquire added space from Dropbox. All assignments and videos are on Dropbox. | | |
| 12. Classroom etiquette policy | | |

University policy requires that in order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular phones and laptops, are to be disabled in class sessions.

Students walking out the classroom during lecture are not allowed to return except for medical conditions.

1. Cell phones and beepers should have the ringers turned off as a courtesy to the instructor and your fellow classmates.
2. You are expected to complete the assigned reading prior to the date indicated on the class schedule, to do all homework assignments, and to participate fully in the group projects.
3. Assignments are due at the beginning of class on the date indicated on the assignment sheet. Late assignments are not accepted. Assignments turned in early will receive extra credit.
4. University policy requires that in order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular phones and laptops, are to be disabled in class sessions.

13. Disability policy statement

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/.

14. Counseling

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling>.

15. Honor code policy

Consultation with your classmates on assignments is expected and encouraged; however, what you turn in must be your own work. Representing the work of others as your own is unethical and may result in sanctions (see the FAU Policy on Academic Honesty). FAU is committed to a policy of honesty in academic affairs. The instructor's duty is to pursue any reasonable allegation, taking action where appropriate, as described in the appropriate section of the FAU Catalog (<http://www.fau.edu/ug-cat/academic.htm#irregular>) and the Florida Administrative Code. Please be advised that the copying of material from the world wide web or any other written material is considered plagiarism and is also a breach of the Honor Code.

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and place high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty.

See University Regulation 4.001 at
http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf

Florida Atlantic University
Regulation 4.001 Code of Academic Integrity

(1) Purpose. Students at Florida Atlantic University are expected to maintain the highest ethical standards. Dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility.

(2) Definitions. The FAU Code of Academic Integrity prohibits dishonesty and requires a faculty member, student, or staff member to notify an instructor when there is reason to believe dishonesty has occurred in a course/program requirement. The instructor must pursue any reasonable allegation, taking action where appropriate. Examples of academic dishonesty include, but are not limited to, the following:

(A) Cheating

1. The unauthorized use of notes, books, electronic devices, or other study aids while taking an examination or working on an assignment.
2. Providing unauthorized assistance to or receiving assistance from another student during an examination or while working on an assignment.
3. Having someone take an exam or complete an assignment in one's place.
4. Securing an exam, receiving an unauthorized copy of an exam, or sharing a copy of an exam.

(B) Plagiarism

1. The presentation of words from any other source or another person as one's own without proper quotation and citation.
2. Putting someone else's ideas or facts into your own words (paraphrasing) without proper citation.
3. Turning in someone else's work as one's own, including the buying and selling of term papers or assignments.

(C) Other Forms of Dishonesty

1. Falsifying or inventing information, data, or citations.
2. Failing to comply with examination regulations or failing to obey the instructions of an examination proctor.
3. Submitting the same paper or assignment, or part thereof, in more than one class without the written consent of both instructors.
4. Any other form of academic cheating, plagiarism, or dishonesty.

(3) Procedures.

(A) If the instructor determines that there is sufficient evidence to believe that a student engaged in dishonesty, the instructor will meet with the student at the earliest possible opportunity and provide notice to the student of the instructor's perception of the facts, the charges against the student, and the sanction. The instructor may not remove the student from the course until the appeal process has come to a conclusion.

(B) If, after this meeting, the instructor continues to believe that the student engaged in dishonesty, the instructor will provide the student written notice of the charges and the penalty. A copy of this statement shall be sent to the chair of the department or director of the school/program administering the course.

(C) The student is entitled to an opportunity to be heard at a meeting with the instructor and chair/director to review and discuss the instructor's charges/statement. Such request for a meeting must be made in writing and received by the chair/director within five (5) business days of receipt of the instructor's charges/statement. The purpose of the meeting is to discuss the facts and to advise the student of the appeal process. The chair/director will provide the student, the instructor, and the dean of the college administering the course a summary of both the student's position and the instructor's position.

(D) The student may appeal in writing to the dean of the college administering the course. The appeal must be received by the dean within five (5) business days of receipt of the chair/director's summary from the review meeting. The dean will convene a Faculty-Student Council ("Council"), which will be composed of the dean (or designee), two faculty members, and two students. The dean (or designee) will act as chair of the Council, direct the hearing, and maintain the minutes and all records of the appeal hearing, which will not be transcribed or recorded. The hearing is an educational activity subject to student privacy laws/regulations, and the strict rules of evidence do not apply. The student may choose to be accompanied by a single advisor, but only the student may speak on her/his own behalf. The student and instructor may present testimony and documents on his/her behalf. Additional witnesses may be permitted to speak at the dean's (or designee's) discretion and only if relevant and helpful to the Council. The Council will deliberate and make a recommendation to the dean to affirm or void the instructor's findings of academic dishonesty. The dean (or designee) will inform the student and instructor in writing of his/her findings of academic dishonesty after receipt of the Council's recommendation.

(E) The student may request an appeal in writing of the dean's findings of academic dishonesty to the University Provost (or designee) and include relevant documentation in support of such appeal. The University Provost (or designee) will notify the student, dean, and instructor of his/her decision in writing. This decision by the Provost (or designee) constitutes final University action.

(F) If there is a finding that the Code of Academic Integrity has been violated, the chair will notify the University Registrar that the following notation be included on both the student's official transcript and on the student's internal record: "Violation of Code of Academic Integrity, University Regulations 4.001." If such violation is appealed and overturned, the dean or University Provost (or their designees) will notify the University

Registrar that such notation should be removed from the student's transcript and internal record.

(4) Penalties.

(A) The instructor will determine the penalty to be administered to the student in the course. Penalty grades cannot be removed by drop, withdrawal, or forgiveness policy. Students should be aware that, in some Colleges/programs, failure in a course or a finding of dishonesty may result in other penalties, including expulsion or suspension from the College/program.

(B) In the case of a first offense, the student may elect to complete a peer counseling program administered by the Division of Student Affairs by the end of the semester following the semester in which the dishonesty occurred. Upon successful completion of this program, the notation regarding violation of the Code of Academic Integrity will be expunged from the student's official transcript. The grade, however, will remain unchanged and cannot be removed by drop or forgiveness policy. Also, the notation will remain in internal University student records.

(C) In the case of a repeat offense, even if the notation of violation of the Code of Academic Integrity from the first offense had been expunged from the official transcript as a result of successful completion of the peer counseling program, the student will be expelled from the University.

Specific Authority: Article IX of the Florida Constitution, 1001.706, 1001.74 F.S., Board of Governors Regulations 1.001, 6.010, and 6.0105. History—New 10-1-75, Amended 12-17-78, 3-28-84, Formerly 6C5-4.01, Amended 11-11-87. Formerly 6C5-4.001. Amended 5-26-10

16. Required texts/reading

All materials are on line. The lectures are on line. There is significant self-motivated work. Labs are in person.

17. Supplementary/recommended readings

none

18. Other

1. College of Engineering and Computer Science (COECS) Technology Services Group (TSG)

TSG provides support for students with issues related to the use of College computing resources such as lamp.cse.fau.edu, the student web server, and GENIE, the Citrix Remote Application Server. TSG also supports the Microsoft Developer Network Academic Alliance portal through which students taking courses in CEECS can obtain free copies of many software products from Microsoft. Details of these and other resources are described on the TSG web site at tsg.eng.fau.edu.

For support issues not covered on the web site students must send email to help@eng.fau.edu. TSG responds to help requests only through this email address. Do not attempt to phone them or contact them personally. TSG support is limited to assistance with COECS computing resources such as having your password on lamp reset. They do not handle specific course related questions. Those should be directed to the instructor for the course.

2. FAU Information Resource Management (IRM)

RM provides support for general computing and network issues at FAU. General information and many resources can be found on the IRM site, www.fau.edu/irm/index.php. IRM provides direct student through an online Help Desk at www.fau.edu/helpdesk/. The help desk includes extensive online support resources and a “Ticket” submission system for support requests. Areas of particular concern to students in this course covered by the Help Desk include general Blackboard, FAU NetId and network login, and FAU Google Email. The Help

Desk can also be accessed by phone at (561) 297-3999. Phone access should generally be used only if you are unable to log in to FAU systems. For most other issues the phone consultant will simply record your concern and submit a help ticket on your behalf. The help ticket will get the same treatment as one you submit directly.

3. College of Engineering and Computer Science (COECS) Division of Engineering Student Services (ESS)

ESS provides general advising and academic support for students in COECS including free tutoring support for all students in computer science courses. Additional information can be found on their web page at www.eng.fau.edu/engineering-student-services.

4. FAU University Center for Excellence in Writing (UCEW)

The UCEW, sometimes referred to simply as the Writing Center, provides assistance to students with writing assignments through consultants. They can assess student writing skills and suggest approaches to dealing with problem areas. The center web site is at www.fau.edu/UCEW/WC.

19. Course topical outline, including dates for exams/quizzes, papers, completion of reading

| Date | TOPIC FOR WEEK | HOMEWORK NOTE: This is a lab class. Your work is expected to take 5 to 10 hours per week outside of class |
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| Aug 24 | Introduction to the course; Administrative issues; Intro to Engineering Drawing Concepts of model space and paper space Dimensioning Common errors | Review week 1 on line info. Assignment 1 |

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| | Rules for mechanical drawing | |
| Aug 31 | Review of Week 1 assignments in class (return for revisions) Circles, arcs and non-straight figure | Review week 2 on line info. Assignment 1 due at start of class Assignment 2 |
| Sep 7 | Intro to AutoCAD – Jared doing it live Creating paper space, title block and learning how to use Viewports | Review week 3 on line info. Assignment 2 due Assignment 3 |
| Sep 14 | Autocadd Part 2 – Jared doing it live Basics of 2-Dimensional Drawings, layers; plotting; concepts of model space and paper space, Adding Text in AutoCAD, Selection Sets, Formats, Blocks, Drawings, Attributes, the AutoCAD Design Center More Dimensioning and Editing Tools Discussion of Week 5 assignment | Review week 4 on line info. Assignment 3 due Assignment 4 – convert hand drawings to AutoCAD Please keep up – you will need 5-7 hours to do these hand drawings correctly. |
| Sep 21 | Assignment 5 In Class – you need to be here to obtain Little Building assignment and do measurements – there is no makeup | Review Week 5 on line info – bring only the drawn cadd files- dimension after discussion in class Week 6 Assignment 4 due |
| Sep 28 | Discussion of Floor Plans, Adding Dimensions to the Floor Plan, Roof Plan, Elevation, Project Drawing. | Review week 5 and 6 on line info. |
| Oct 5 | | Assignment 6 – floor planning Assignment 5 Elevations due |
| Oct 12 | Land Survey, Metes and Bounds, Lot and block, creating a plat template | Review on line info. Assignment 6 due Assignment 7 – site layout |
| Oct 19 | | Review on line info. Assignment 7 due Assignment 8 |
| Oct 26 | Templates, drawing a Plat, Drawing a Contour Map, Project Drawing | Review on line info. Assignments 8 due Assignment 9 – another plat |
| Nov 2 | Intro to REVIT 3-D, Project Drawing | Review on line info. Assignment 9 due Assignment 10 topo Final Assignment |
| Nov 9 | REVIT 3-D | Assignment 10 due Open Lab |
| Nov 16 | REVIT 3-D /Lumion | Open Lab |
| Nov 23 | No Class (Thanksgiving Day) | Keep Working!!!! |
| Nov 30 | REVIT 3-D | Open Lab – time to PANIC |
| Dec 7 | Final Exam 4:00 PM Projects due – loaded to Dropbox | Final Project Due –Loaded to Dropbox |

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| | | We will play them from Dropbox so make sure it works! |
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