FLORIDA ATLANTIC

COURSE CHANGE REQUEST Undergraduate Programs

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UUPC Approval 9/8/25
UFS Approval
SCNS Submittal
Confirmed
Banner Posted
Catalog

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Current Course		Current Co	urse Title	atad Cumraving and Manning
Prefix and Num				ated Surveying and Mapping
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*See <u>Definition of a</u> **WAC/Gordon Rule approval attached to	Education Requirement Remove Credit Hour. c criteria must be indicated in so this form. See WAC Guidelines the indicated in syllabus and app	syllabus and	Change registration co	re/corequisites, specify AND or OR
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Faculty Contact/F	Email/Phone			
Approved by Department Chair College Curriculum College Dean UUPC Chair Undergraduate Stu UFS President Provost	Korey Sandies Dean Dan M	kaisar lan Liu Sorge eeroff		Date 8/28/25 8/28/25 8/28/25 9/8/25 9/8/25
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Email this form and syllabus to mjenning@fau.edu seven business days before the UUPC meeting.



Course Description

This course teaches the methods of automated surveying data collection and digital processing using applications of computer-aided drafting and topographic mapping using GIS.

This course teaches the use of computer-aided drafting and mapping from surveyed field data, familiarization with hardware and software available for surveying and mapping computations and drafting, data storage and output from automated devices used in surveying, use of total stations and electronic field data collection systems, field-to-finish products.

Instructional Method

This class is designated as "Video Stream: Attendance Optional." Class sessions will be recorded live, and a limited number of students may attend in person as long as social distancing protocols can be maintained. Other students will view class sessions remotely in Canvas through Zoom.

All students are expected to attend the weekend lab in person.

Prerequisites/Corequisites

SUR 3103/3103L or SUR3103C or SUR2104C Fundamentals of Surveying with minimum grade of "C" and CGN2327 or equivalent with minimum grade of "C".

Course Objectives/Student Learning Outcomes

Course Objectives:

- I. Be exposed to typical field and office systems for automated production of surveying and mapping products.
- II. Understand issues of data storage and management, from automated devices used in surveying.
- III. Understand and apply basic concepts of mapping and geospatial analysis.
- IV. Be able to create digital topographic maps from surveying data collected from the field

Student Learning Outcomes:

- 1. Ability to employ typical field and office systems for automated production of topographic surveying and mapping products (1,3)
- 2. Ability to solve issues of data storage and management, from automated devices used in surveying. (1,5,6)
- 3. Ability to apply basic concepts of mapping and geospatial analysis (1,3,6)
- 4. Ability to create digital topographic maps from surveying data collected from the field (3,5,6).

Course Evaluation Method

Laboratories, homework: Mid-term examination:	50% Note: The minimum grade required to pass 20% the course is C.
Final examination:	30%

Course Grading Scale

- 94-100 = A
- 90-93 = A-
- 87-89 = B+
- 84-86 = B
- 80-83 = B-
- 77-79 = C+
- 74-76 = C
- 70-73 = C-
- 67-69 = D+
- 64-66 = D
- 61-63 = D-
- 0 60 = F

Policy on Makeup Tests, Late Work, and Incompletes (if applicable)

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 exam should be administered and proctored by department personnel unless there are other pre-approved arrangements. Late work is not acceptable.

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.

Special Course Requirements (if applicable)

All assigned homework must be submitted on or before the posted time. Per day 10% penalty will be enforced for late submissions.

Both midterm and final exams will be given online and open-book. You are required to use a computer with a web camera and a reliable internet connection. Lockdown browser will be used to verify the exam-taker's identity.

To succeed in this course all exams must be taken. The reasons for missing an exam must be documented, i.e. doctor's note etc. An unsatisfactory excuse will result in an F entered for that exam. Make-up exams will be administered for ONLY valid reasons.

All exams will be taken on the honor system and must be done by the student ONLY with NO ASSISTANCE FROM ANYONE. A student MAY NOT provide an assistance to another student.

You are encouraged to work in groups to complete the homework assignments and/or to study together. However, the completed homework assignments must be your own work.

Classroom Etiquette Policy (if applicable)

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.

Policy on the Recording of Lectures (optional)

Students enrolled in this course may record video or audio of class lectures for their own personal educational use. A class lecture is defined as a formal or methodical oral presentation as part of a university course intended to present information or teach students about a particular subject. Recording class activities other than class lectures, including but not limited to student presentations (whether individually or as part of a group), class discussion (except when incidental to and incorporated within a class lecture), labs, clinical presentations such as patient history, academic exercises involving student participation, test or examination administrations, field trips, and private conversations between students in the class or between a student and the lecturer, is prohibited. Recordings may not be used as a substitute for class participation or class attendance and may not be published or shared without the written consent of the faculty member. Failure to adhere to these requirements may constitute a violation of the University's Student Code of Conduct and/or the Code of Academic Integrity.

Attendance Policy

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

Counseling and Psychological Services (CAPS) Center

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/

Disability Policy

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/.

Code of Academic Integrity

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 an unfair advantage over any other. Academic 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. Harsh penalties are associated with academic dishonesty. For more information, see <u>University Regulation 4.001</u>.

If your college has particular policies relating to cheating and plagiarism, state so here or provide a link to the full policy—but be sure the college policy does not conflict with the University Regulation.

Required Texts/Readings

- Ghilani & Wolf, Elementary Surveying, 14th ed. ISBN-13: 978-0133758887 (or any other editions)
- Documents posted on Canvas course website for SUR3141

Supplementary/Recommended Readings (if applicable)

- FSMS website at https://www.fsms.org/
- Florida Board of Professional Surveyors and Mappers Website at: https://www.fdacs.gov/Business-Services/Surveyors-and-Mappers/Board-of-Professional-Surveyors-and-Mappers

Course Topical Outline

Include a breakdown of topics covered (generally, by class day or by week), deadlines for course assignments/requirements, and dates of exams, quizzes, papers, and completion of readings. The *Provost's Policy and Procedure: Definitions of a Credit Hour* needs to be followed in developing out-of-class assignments.

	Lectures	
Date	Торіс	
Week 1	Course introduction; course technology usage.	
Week 2	Horizontal and vertical control survey for topographic mapping	
Week 3	Field systems for automated surveying and mapping.	
Week 4	Office systems of automated surveying and mapping.	
Week 5	Review of CAD application in surveying and mapping.	
Week 6	Introduction of GIS mapping	
Week 7	Introduction of Mapping in GoogleEarth	
Week 8	Database in GIS	
Week 9	Mid-term examination.	
Week 10	Topographic mapping: Scales, Symbols, Contours and Slopes	
Week 11	Digital Terrain Modeling and Digital Elevation Modeling	
Week 12	Data management and digital file organization.	
Week 13	File formats; data sharing.	
Week 14	Introduction of other survey processes and methods (riparian surveys)	
Week 15	Course Overview	
December	*Final Exam*	

Tentative laboratory schedule in IS113

Date		Topic
Sat. Sep 20	Group 1-4	Lab 1: project introduction; field reconnaissance; control survey (differential leveling and traverse).
Sat. Oct 04	Group 1-4	Lab 2: Adjust differential leveling and traverse measurements; topographic data collection.
Sat. Oct 18	Group 1-4	Lab 3: Topographic survey field data collection.
Sat. Nov o1	Group 1-4	Lab 4: Topographic survey field data collection; office processing.
Nov 17		Oral Presentation online: topographic survey maps in CAD, GIS and GoogleEarth.