

 FLORIDA ATLANTIC UNIVERSITY	NEW COURSE PROPOSAL Undergraduate Programs		UUPC Approval <u>12-2-24</u> UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner Posted _____ Catalog _____
	Department College <i>(To obtain a course number, contact erudolph@fau.edu)</i>		
Prefix Number	<i>(L = Lab Course; C = Combined Lecture/Lab; add if appropriate)</i> Lab Code	Type of Course	Course Title
Credits <i>(See Definition of a Credit Hour)</i>	Grading <i>(Select One Option)</i> Regular Sat/UnSat	Course Description <i>(Syllabus must be attached; see Template and Guidelines)</i>	
Effective Date <i>(TERM & YEAR)</i>			
Prerequisites, with minimum grade*		Corequisites	Registration Controls <i>(Major, College, Level)</i>
*Default minimum passing grade is D-. Prereqs., Coreqs. & Reg. Controls are enforced for all sections of course			
WAC/Gordon Rule Course Yes No WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to proposal. See WAC Guidelines .		Intellectual Foundations Program (General Education) Requirement <i>(Select One Option)</i> General Education criteria must be indicated in the syllabus and approval attached to the proposal. See Intellectual Foundations Guidelines .	
Minimum qualifications to teach course			
Faculty Contact/Email/Phone		List/Attach comments from departments affected by new course	
Approved by Department Chair <u>Evangelos Kaisar</u> College Curriculum Chair <u>Galan Liu</u> College Dean <u>Korey Sorge</u> UUPC Chair <u>Dan Meeroff</u> Undergraduate Studies Dean _____ UFS President _____ Provost _____		Date <u>11/18/2024</u> <u>11/21/2024</u> <u>11/21/24</u> <u>12-2-24</u> <u>12-2-24</u> _____ _____	

Email this form and syllabus to mjenning@fau.edu seven business days before the UUPC meeting.

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Course title/number, number of credit hours

CGN4612 Introduction to Infrastructure
Management (UG)

3 credit hours

Catalog Course description

Course Description

This is a senior level course in which the principles of maintenance, rehabilitation, replacement and condition assessment are used as a means to provide data on potential failures of critical infrastructure systems.

Course prerequisites, co-requisites, and where the course fits in the program of study

For Civil Engineering Majors:

Senior standing and permission of instructor

Course logistics

Term: Summer 2026

This is a classroom lecture course

Class location and time: IS103 in-person or zoom

Exams will be given only at the scheduled times. No make-ups, except in documented emergencies. Short quizzes may be randomly given throughout the semester.

Other logistics are as follows:

1. Canvas registration is required.
2. Dropbox access is REQUIRED!
3. The instructor will regularly post materials/announcements on Canvas. It is student's responsibility to regularly check Canvas and their FAU email for the most recent information.
4. No hard-copy handouts will be provided. Copies will be posted in files on Canvas
5. *Attendance* is required. All classes will be virtual via Zoom. You are expected to participate in all sessions and keep up with the material. You are not expected to be a distraction in class. Final grades will be reduced by one full letter for class disruption or lack of participation (as determined by the instructor).
6. Participation in University-approved activities or religious observances, with prior notice, will not be penalized.
7. Students need a reliable internet condition capable of streaming Webex lectures, taking exams on Canvas, etc. Recommended: Broadband Internet connection with a speed of 4 Mbps or higher. To function properly, Canvas requires a high-speed Internet connection (cable modem, DSL, satellite broadband, T1, etc.). The minimum Internet connection speed to access Canvas is a consistent 1.5 Mbps (megabits per second) or higher. [Check your Internet speed here.](#)

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8. Students should have an operational computer system equipped with Windows 10 or macOS Sierra (or higher), Microsoft Office, web browser, a webcam, speakers, and microphone, which should be compatible with the most recent version of LockDown Browser, Respondus Monitor, Cisco Webex, etc.
9. All exams will be held using LockDown Browser and Respondus Monitor, or similar features, as determined by the instructor. More information will be provided as we get closer to exams. You must be able to scan answers and upload them to Canvas during tests. Please test this BEFORE the exam. This is subject to change as technology changes
10. These are the links where you can find the steps to use your cell phone as a webcam.

For Android:

<https://helpdesk.fau.edu/TDClient/2061/Portal/KB/ArticleDet?ID=104057>

For iPhone or iPad

<https://helpdesk.fau.edu/TDClient/2061/Portal/KB/ArticleDet?ID=104056>

11. All questions must be sent publicly through Canvas, so other students also benefit from the answers. Only personal or confidential matters should be sent via email to the professor, all others will be ignored.
12. Keep copies of all assignments for ABET purposes.
13. Tests are closed book; however, you may use FE manual.

More details will be announced throughout the semester. It is students' responsibility to review and follow communications posted by the instructor.

Instructor contact information

Instructor's name Dr. Frederick Bloetscher, PE,
Associate Professor
Office address Engineering east – Dean's
Office 308M
Office hours Via webex
Telephone no. 239-250-2423
Email address h2o_man@bellsouth.net

TA contact information

Not applicable.

Class Recording Consent

By registering for this class, the students hereby consent to recording of the class and potential use of the class material for other purposes.

Course description

The class generally meets once per week (for 180 minutes) for lectures and professional practice. The lectures focus on key aspects of the engineering profession relevant to the assignments. Professional practice focuses on

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the development of a capstone design project and specific engineering skills. The work involves engineering due diligence, basis of design, site reconnaissance, and site planning.

Course objectives/student learning outcomes/program outcomes

- Course objectives*
- I. Create a preliminary design for a project that is acceptable to a sponsor or client.
 - II. Develop a fundamental understanding of engineering economics and depreciation.
 - III. Understand assessment of assets, condition and options for predicting maintenance needs
 - IV. Enhance ability to communicate effectively about designs.

Course evaluation method (note percentages subject to change)

Project Report	70%	<i>Note:</i> The minimum grade required to pass the course is C.
Final Exam	20%	
Homework	10%	

Course grading scale

There are no fixed criteria for the grading scale. The overall performance as related to course objectives and outcomes is evaluated and considered during grading.

Policy on makeup tests, late work, and incompletes

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.
5. *Attendance* to class is required. You are expected to attend and participate in all class sessions. Final grades will be reduced by one letter for every three (3) unexcused absences (as determined by the instructor).

Classroom etiquette policy

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

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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/.

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/>

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

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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.

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(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

NOTE if you are caught cheating you will fail the class

Attendance

Students are expected to attend all 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.

Time Commitment Per Credit Hour

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For traditionally delivered courses, not less than one (1) hour of classroom or direct faculty instruction each week for fifteen (15) weeks per Fall or Spring semester, and a minimum of two (2) hours of out-of-class student work for each credit hour. Equivalent time and effort are required for Summer Semesters, which usually have a shortened timeframe. Fully Online courses, hybrid, shortened, intensive format.

Faculty Rights and Responsibilities

Florida Atlantic University respects the rights of instructors to teach and students to learn. Maintenance of these rights requires classroom conditions that do not impede their exercise. To ensure these rights, faculty members have the prerogative to:

- Establish and implement academic standards.
- Establish and enforce reasonable behavior standards in each class.
- Recommend disciplinary action for students whose behavior may be judged as disruptive under the Student Code of Conduct [University Regulation 4.007](#).

Grade Appeal Process

You may request a review of the final course grade when you believe that one of the following conditions apply:

- There was a computational or recording error in the grading.
- The grading process used non-academic criteria.
- There was a gross violation of the instructor's own grading system.

[University Regulation 4.002](#) of the University Regulations contains information on the grade appeals process

Religious Accommodation Policy Statement

In accordance with rules of the Florida Board of Education and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices and beliefs regarding admissions, registration, class attendance, and the scheduling of examinations and work assignments. University Regulation 2.007, Religious Observances, sets forth this policy for FAU and may be accessed on the FAU website at www.fau.edu/regulations.

Any student who feels aggrieved regarding religious accommodations may present a grievance to the director of Equal Opportunity Programs. Any such grievances will follow Florida Atlantic University's established grievance procedure regarding alleged discrimination.

HB7

One of the objectives of this course is to facilitate critical thinking and debate around topics, theories, and concepts where disagreement is not only anticipated, but encouraged. The ability to think critically, express your ideas clearly, and respond to the professor and other students civilly are the keystones of the academic experience. In this course, the professor will provide instruction in an objective manner and will remain open to a wide variety of viewpoints, so long as those viewpoints are evidence-based and presented in a respectful way. During class, the professor may take positions and make statements for the sole purpose of accomplishing an academic objective or enhancing the learning environment. Additionally, the adoption of class materials for this course does not imply an endorsement of the full content of those materials or the positions of the authors of those materials. Often the professor will provide materials as a point of departure for critical thinking and debate. Students should keep in

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mind that the ideas presented or discussed during class may not necessarily reflect the professor's personal beliefs or opinions on the subject matter.

Required texts/reading

Dropbox access
Canvas registration
Materials as needed for the design project development
Handouts provided by instructor

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.

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

TOPICS	<ol style="list-style-type: none">1. Infrastructure Systems2. Water Systems3. Roadway Systems4. Asset Management5. Maintenance6. Planning7. Capital Improvements8. Budgeting9. Managing People
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