

New Infrastructure Engineering and Management/Best Practices
CGN 5606/CGN 4600, Section: 1FE2, 2FED, HYBR, OVER /CAMP
Class Periods: Thursday 7-9 (1:55- 4:55pm)
Face-to-face lecture classroom Location:
CSE 122
Academic Term: Fall 2023,

Instructor:

Name: Dr. Fazil T. Najafi, Professor

Email Address: fnaja@ce.ufl.edu

Phone Number: Cell: (352) 870-2477

Office Hours: Thursday, 5:00 – 7:00 pm, 470 Weil Hall, and also

Please call or email. I will respond by phone, email, or zoom within 24 hours.

Teaching Assistant: Swami Charan

Email Address: s.beeravelly@ufl.edu

Office hours: Thursday, 12 pm to 2 pm

Contact: 352-871-7279

Please email me. I will respond by email or zoom within 24 hours.

Course Description

New Infrastructure Engineering and Management/Best Practices is a three-credit hours course. The course covers the medium-sized city's organizational and management, emphasizing the engineer role. It includes duties and administrative responsibilities of various operating divisions emphasizing each Department's role in managing the city's infrastructure issues to help its citizens.

Course Pre-Requisites / Co-Requisites

No pre-requisites are required

Course Objectives

The objectives of this course are:

1. Learn city organizations and management. Structure.
2. Develop leadership and communication skills, which are essential requirements for any manager.
3. Learn the city's finance, budgeting, and capital management.
4. Apply knowledge from previous civil engineering courses to solve the city's engineering problems.
5. Learn the city's infrastructure related to roadways, rail, air transport systems, port and harbor systems, buildings, stormwater, wastewater, potable water systems, solid waste, and Fire Protection.
6. Learn legal aspects in the management of city infrastructure.
7. Learn fleet management.
8. **Infrastructure Cyber-security.**
9. **Construction Contract Management.**
10. **Utility Approval Construction Process.**
11. **Pavement Management**
12. Maintenance of building and grounds.

Course Outcomes

1. The course will achieve the objectives mentioned above.
2. The course meets ABET Outcome Number 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.

3. "The course homework assignment will help you develop presentation skills which are essential throughout your academic and professional careers."

Required Textbooks and Software

No textbooks are required, and all materials are in the files folder in CANVAS.

Materials and Supply Fees

Not applicable

Course Schedule

Please see the **Weekly Schedule** excel sheet in CANVAS's files folder.

The schedule is tentative; I reserve the right to make changes at any point in time with prior consent or notification. If there is any change in the weekly schedule, there will be an announcement made by any of the following means: email, and announcement on canvas, or during my lectures.

Attendance Policy, Class Expectations

The face-to-face class lecture session is every Thursday, from period 7-9 (1:55 pm- 4:55 pm). in Computer Science and Engineering (CSE) Room 122. Off-campus students can watch the recorded lecture on Canvas under Media site lecture videos.

The weekly schedule shows what is expected of you each week. Lectures, assignments, and assignment due dates are all listed there. Contact the TA or the Professor if you have any questions about the weekly schedule. **Each student must prepare a one-page summary** of Dr. Najafi and guest speakers' presentations submitted on CANVAS per the deadline listed on a weekly schedule. The page summary grade is part of class attendance. Homework due dates are shown on the weekly schedule to upload on CANVAS for all students to watch. Late homework will NOT be accepted.

Groups

I grouped students on CANVAS from the combination of in-class and EDGE students. Each group should have a group leader. Groups must give each other member names, phone numbers, email addresses, and Zoom links. Group leaders work closely with their group members to complete their homework on time per the deadline shown on the weekly schedule. **Only group leaders submit group Homework on Canvas under Discussions for each student to watch.**

Audio PowerPoint Video Presentations:

Each group will prepare the assigned HW from the questions at the end of each chapter. Per instruction, the Group Audio PowerPoint video Presentation in each HW should be submitted on Canvas under Discussions and uploaded before the deadline shown on the weekly schedule. The group members prepared one question with answers uploaded by the group leader on CANVAS before the deadline indicated on the weekly schedule).

Grading Criteria for Audio PowerPoint Presentation	Total Points
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1. Title of the PowerPoint (PPT), its design, appearance, presentation of audio PPT video and its goal, and objective.	20
2. Literature review hypotheses, showing the data required, and a methodology used to help you solve your research questions.	50
3. Results and Discussion	10
4. Show the critical points of your learning/conclusion/recommendation/references.	20
	100

Evaluation of Grades

<i>Assignment</i>	<i>Total Points</i>	<i>Percentage (%) of Final Grade</i>
Audio PowerPoint video presentations	100	40
Questions with the answer	100	20
Class attendance: Summary of Dr. Najafi and guest speaker's lecture presentations submitted by each group member on Canvas under Discussions.	100	15
Final Exam	100	25

Grading Policy

Percent	Grade	Grade Points
90.0 - 100.0	A	4.00
87.0 - 89.9	A-	3.67
84.0 - 86.9	B+	3.33
81.0 – 83.9	B	3.00
78.0 - 80.9	B-	2.67
75.0 - 79.9	C+	2.33
72.0 – 74.9	C	2.00
69.0 - 71.9	C-	1.67

66.0 - 68.9	D+	1.33
63.0 - 65.9	D	1.00
60.0 - 62.9	D-	0.67
0 - 59.9	E	0.00

The following link indicates the UF grading policy

<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades>.

Najafi's Lectures and Guest Speakers:

This course will involve guest speakers and Dr. Najafi's lecture on the content of Najafi's book. Students must prepare one-page summaries of Dr. Najafi's and guest speaker's lecture presentations that are due via Canvas per weekly schedule instructions. **Each student's one-page** summary should include the subject title, the goal and objective of the lectures you are learning, and conclusions with your opinions and thoughts. Keep the one-page summaries in bullet format. You can exceed one page and it will be graded as your class attendance.

Assignments:

All assignments must be submitted to the appropriate tab on CANVAS under Discussions before the deadline shown on the weekly schedule. We will not be accepting late work. Please include your name, assignment number, and submission date on all assignment documents. Save all files as Last Name(s)_Assignment Name. Grammar and formatting are essential when grading.

Group Work:

You will get to collaborate in groups to work on the homework shown on the weekly schedule. Each group should have a group leader. Group members are required to give member names, contact numbers, email addresses, and zoom links to each other so they may contact each other to work on their assigned homework.

Communication expectations: Please remember that the class prepares you for your future career. Students conduct should be professional. Read the [Netiquette guide](#) for conduct expectations when communicating with your peers, Dr. Najafi, and your TA.

Course lecture content

For the content of the course chapters, refer to the weekly schedule.

Technology Tip:

Make sure you are on the UF network. If not, make sure you have the Gator VPN.

For Technology help:

UF Computing Help Desk

- Available 24 hours a day, seven days a week
- Phone: (352) 392-HELP (4357)
- Email: helpdesk@ufl.edu
- Web: <https://helpdesk.ufl.edu/>

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/>. Students must share their accommodation letter with their instructor and discuss their access needs as early as possible in the semester.

Course Evaluation

Students 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 input professionally and respectfully is available at <https://gatorevals.aa.ufl.edu/students/>. When the evaluation period opens, students can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the University, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

University Honesty Policy

All UF students are bound by The Honor Pledge, which states, "We, the University of Florida community members, 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 Conduct Code (<https://sccr.dso.ufl.edu/process/student-conduct-code/>) specifies the number of behaviors violated by this code and the possible sanctions. Please consult with the instructor or TAs in this class if you have any questions or concerns.

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 eliminating discrimination. 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.

For discrimination, or harassment in your class performance, get in touch with your instructor or any of the following:

- Your academic advisor or Graduate Program Coordinator
- Jennifer Nappo, Director of Human Resources, 352-392-0904, jpennacc@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 criminal penalties for the individual violator because such violations are also against University policies and rules. Uf take disciplinary action as appropriate. We, the University of Florida community members, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

Federal laws protect your privacy about 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 vital to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging community members to look out for one another and to reach out for help if a community member is in need. If you or a friend is in distress, please get in touch with 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 other supporting resources, including 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: <https://counseling.ufl.edu>, 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 email to Learning-support@ufl.edu.
<https://Iss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling; <https://career.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://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>; <https://care.dso.ufl.edu>.

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

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