

COURSE OUTLINE

TTE 5837 PAVEMENT MANAGEMENT SYSTEMS

Fall 2024

INSTRUCTOR: Mang Tia, 245M Weil Hall, 352-294-7768, e-mail: tia@ce.ufl.edu

OFFICE HOURS: M, W & F 10:45 A.M. - Noon

WEB PAGE: through E-Learning at <https://lss.at.ufl.edu/>

OBJECTIVE: To provide the students with an in-depth understanding of the principles and practices of evaluation, analysis, design, performance prediction, planning and maintenance of highway pavements.

PREREQUISITE: TTE 5835 Pavement Design or equivalent, or by permission of the instructor.

CLASS SCHEDULE: T 12:50 PM – 2:45 PM through Zoom or In-Person (location to TBD)
Th 12:50 PM – 1:40 PM through Zoom or In-Person (location to TBD)

<u>Date</u>	<u>Topic (Lecture Notes #)</u>	<u>Reference</u>
Aug 22	Introduction to Pavement Management (1a & 1b)	Readings #1 & #2
Aug 27	Pavement Serviceability (2)	Reading #3
Aug 29	Pavement Performance (2)	Reading #4
Sep 3	Pavement Distresses (3a)	Readings #5 & #6
Sep 5	Condition Survey (3b) (4)	Reading #7
Sep 10	Skid Resistance and Pavement Safety (5)	Reading #8
Sep 12	AASHTO Road Test (6)	Reading #9
Sep 17	AASHTO Design for Flexible Pavements (8)	Reading #10
	Topic for Presentation Due	
Sep 19	AASHTO Design for Rigid Pavements (7)	Reading #10
Sep 24	TEST NO. 1	
Sep 26	AASHTO Design for Rigid Pavements (9)	Reading #10
Oct 1	PCA Design for Concrete Pavements (10)	Reading #11
Oct 3	Performance of Concrete Pavements (11)	Reading #12
Oct 8	A Rational Design for Concrete Pavements (12)	Reading #13
Oct 10	Asphalt Institute's Design for Asphalt Pav'ts (13)	Reading #14
Oct 15	Structural Evaluation of Rigid Pavements (14)	Reading #15
Oct 17	Structural Evaluation of Rigid Pavements (16)	Reading #15
Oct 22	Structural Evaluation of Flexible Pavements (15)	Reading #16
Oct 24	Types of Overlay (18)	Reading #17

<u>Date</u>	<u>Topic</u>	<u>Reference</u>
Oct 29	TEST NO. 2	
Oct 31	Full Depth Repair of Concrete Slab (19) Outline for Presentation Due	Reading #18
Nov 5	Partial Depth Repair of Concrete Slab (20 & 21)	Reading #19
Nov 7	Crack Sealing (22) & Undersealing (23)	Readings #20, #21
Nov 12	Diamond Grinding (24)	Reading #22
Nov 14	Rigid Pavement Recycling (25)	Reading #23
Nov 19	Subdrainage (26) Asphalt Pavement Recycling (27)	Reading #25
Nov 21	Student Presentations	
Nov 25-29	Thanksgiving Holidays – No Class	
Dec 3	TEST NO.3	

Additional requirements:

- (1) Each student is to write a term paper (10 to 20 pages) long on a topic that is related to pavement management or pavement engineering.
- (2) Each student is to make a 15 minute presentation of the term paper to the class.

BASIS FOR GRADES:

Three tests	75%
Term paper	15%
Presentation	10%

Grading Scale:

<u>Grade</u>	<u>% Scale</u>
A	90.0 - 100
A-	87.0 – 89.9
B+	84.0 – 86.9
B	80.0 – 83.9
B-	77.0 – 79.9
C+	74.0 – 76.9
C	70.0 – 73.9
C-	67.0 – 69.9
D+	64.0 – 66.9
D	60.0 – 63.9
D-	57.0 – 59.9
E	<57.0

For more information on grades and grading policies, please visit:
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Presentations:

Each student will be required to write a 10 to 20 page term paper on a topic related to pavement management or pavement technology and to make a 20-minute presentation on the term paper.

Attendance

You may attend class in-person or through Zoom. Under special circumstance, you may watch the recorded lecture. Exams must be taken in person.

Make-up Exam Policy:

No make-up tests will be given except for medical reasons or unless arrangements have been made prior to tests.

Homework assignments are usually due one week following the lab or as specified by the instructor. A penalty of 10% per school day shall be assessed on materials turned in late.

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.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Online Course Recording

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

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/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

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 Conduct Code (<https://sccr.dso.ufl.edu/process/student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. 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
- 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/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>

COVID-19

- You are expected to wear approved face coverings at all times during class and within buildings even if you are vaccinated.
- If you are sick, stay home and self-quarantine. Please visit the UF Health Screen, Test & Protect website about next steps, retake the questionnaire and schedule your test for no sooner than 24 hours after your symptoms began. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 (or email covid@shcc.ufl.edu) to be evaluated for testing and to receive further instructions about returning to campus.
- If you are withheld from campus by the Department of Health through Screen, Test & Protect, you are not permitted to use any on campus facilities. Students attempting to attend campus activities when withheld from campus will be referred to the Dean of Students Office.
- UF Health Screen, Test & Protect offers guidance when you are sick, have been exposed to someone who has tested positive or have tested positive yourself. Visit the [UF Health Screen, Test & Protect website](#) for more information.
- Please continue to follow healthy habits, including best practices like frequent hand washing. Following these practices is our responsibility as Gators.

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: <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 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://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>.

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