

SYLLABUS

I. Course Title

CENG 5359: Pavement Management Systems

II. Course Credit

3 credit hours.

III. Prerequisites

CENG 3351

IV. Course Professors

Lead Professor

Name: Mena Souliman

Title: Chair and Professor

Phone: available upon request

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V. Course Description

Conducts the project and network-level pavement management processes. Identifies the data to be collected and how to define and predict the conditions of the pavement.

VI. Course Objectives

1. Explain the philosophy and the background of pavement management systems.

2. Analyze different pavement management levels and functions.
3. Explain the development process, development, and management of databases.
4. Analyze pavement management systems databases.
5. Explain different maintenance, rehabilitation, and reconstruction pavement techniques.
6. Develop needs analysis

VII. Materials

Textbook

None

Other Resources

- Pavement Management Guide, American Association of State Highway and Transportation Officials, AASHTO, ISBN: 1-56051-155-9, 2001.
- Modern Pavement Management. Haas R., Hudson W. R., and Zaniewski J. Krieger Publishing Company, ISBN: 0894645889, 1994.
- Download the LTPP Distress Identification Manual from:

www.fhwa.dot.gov/publications/research/infrastructure/pavements/ltp/reports/03031

VIII. Course Outline and Expectations

Date	Materials Covered
Week 1	Module 1
Week 2	Module 2
Week 3	Module 3
Week 4	Module 4
Week 5	Module 5
Week 6	Module 6
Week 7	Module 7

Course Communication Guidelines (Netiquette)

Netiquette is a set of rules for behaving properly online. Much of our communication in this course will take place in the forums and through email. Here are some guidelines for online communication in this course:

- Be sensitive to different cultural and linguistic backgrounds, as well as different political and religious beliefs.
- Use good taste when composing your responses. Swearing and profanity should be avoided. Also consider that slang terms can be misunderstood or misinterpreted.
- Don't use all capital letters when composing your responses. This considered "shouting" on the Internet and is regarded as impolite or aggressive. It can also be stressful on the eye when trying to read your message.
- Be respectful of others' views and opinions. Avoid "flaming" (publicly attacking or insulting) others.
- Be careful when using acronyms. If you use an acronym it is best to spell out its meaning first, then put the acronym in parentheses afterward, for example: Frequently Asked Questions (FAQs). After that you can use the acronym freely throughout your message.
- Use good grammar and spelling, and avoid using text messaging shortcuts.
- In emails, always identify yourself and what class and section you are in. It is a good practice to put your course and section in the subject line. This helps your instructor identify course related emails.

IX. Technology Requirements

Computer/Technology Requirements

Online students will need regular access to a personal computer that runs on a broadband Internet connection.

Learning Management System

Students are provided with guides and online ticketing service when an LMS issues arises. To access the 24/7 help desk and resources, access the Help option by clicking on the question mark icon in the navigation bar on the left side of your course page.

Web Conferences/Synchronous sessions

Applicable to the particular course. Language usually comes from the instructor. Should include links to support information for whatever technology is being used for these sessions.

X. Grading and Evaluation

Final Grade Calculation

Assessments	Percentages
Discussion Assignments	35 points per assignment x 7 = 245 points (24.5%)
Quizzes	35 points per quiz x 7 = 245 points (24.5%)
Term Paper	250 (25%)
Final Exam	260 (26%)
Total Percentage For Course	100%

Blanket Statement on when assignments/assessments are due should go here.

Grading

In determining the final course grade, the following scale is used:

90 and above = A

between 80 to 89.9 = B

between 70 to 79.9 = C

less than 70 = F

Rubrics

Included in the instruction of each assignment.

Late Work Policy

The only late work that will be considered are those instances where the student has communicated with their instructor regarding unavoidable

circumstances, *such as reporting an illness and submitting a doctor's note to their instructor.*

XI. Course Evaluation

At the end of this course, students are encouraged to complete a course evaluation that will be distributed to them via email and through a course link.

XII. Course Topics

Module 0	Introduction
Module 1	Laying the Groundwork: Introduction to Pavement Management
Module 2	Pavement Management Levels & Functions
Module 3	PMS Development and Implementation
Module 4	Pavement Performance and Deterioration Modeling
Module 5	Pavement Management System Databases
Module 6	Maintenance, Rehabilitation, and Reconstruction (MR and R) Policies and Life Cycle Cost Analysis
Module 7	Maintenance, Rehabilitation, and Reconstruction Prioritization