"Virtually every structure is supported by soil or rock. Those that aren't either fly, float, or fall over" (Handy 1995)

PURPOSE AND OBJECTIVE OF THE COURSE

The purpose of this course is to provide understanding of the concepts of pavement design to the undergraduate and graduate students planning to pursue their career in civil engineering or related field. To accomplish the objectives of the course, the following features will be included:

- The mathematics will be kept as simple as each topic would permit.
- Analytical procedures will be summarized to emphasize key steps.
- Wherever possible, topics will be related to actual field problems.
- Class discussions will be encouraged and appreciated.

CLASS INSTRUCTOR : Sanjeev Kumar, Ph.D., P.E.
Chair, Professor and Distinguished Teacher

CLASS TIME : Tuesday and Thursday 09:35 – 10:50 am
(Due to Instructor’s professional meetings, some make-up sessions will be needed)

OFFICE : Engineering Bldg. D, Room 33 (CEE Department Office)
Phone: 536-2368 (office), 351-7566 (home), 201-3691 (cell)
If not an emergency, please avoid calls between 10 pm and 6 am

OFFICE HOURS : Tuesday, Wednesday, and Thursday: 8:30 - 9:30 am
Please feel free to walk-in whenever I am in my office.

TEXT BOOK:

Course material will be developed from several textbooks and research papers. References given under bibliography will be used.

BIBLIOGRAPHY:

Pavement Analysis and Design by Yang H. Huang
Pavement Design and Materials by Papagiannakis and Masad
Design and Performance of Road Pavements by David Croney and Paul Croney
AASHTO Guide for Design of Pavement Structures
Highway Engineering Handbook by Brockenbrough and Boedecker
GENERAL INSTRUCTIONS

- Attendance is **required** for each session of this course. The information covered in each class is pertinent to understanding of the entire course. The exam problems will be developed from the topics covered in the class which may not be available in the textbook. Unexcused absence from the class is likely to adversely affect your grade.

- There will be some field trips and/or special presentations. Therefore, flexibility with your schedule may be needed.

- All assignments must be turned-in at the beginning of the class on the due date given on the assignment. Late assignments will not be accepted. However, if due to some valid reason, you feel that you will not be able to complete the assignment by the due date, please let me know at least **Three (3) days** before the due date of the assignment. If I am not in my office, please call me or send me an e-mail (kumars@ce.siu.edu).

- Anyone caught copying assignments from other students in the class or from those who have already taken the course in previous semesters will receive a grade of ‘F.’ Also, anyone allowing copying of his/her assignments to other students in the class will receive a grade of ‘F.’

- The homework assignments should be, legible, clear, and written in a **professional** manner. Each assignment must have a cover sheet with your name, the course number, assignment number, and date. All pages of an assignment should be appropriately labeled. An assignment that cannot be read or is not presented in a professional manner will not be accepted.

- Everybody is required to participate in class discussions. Tentative topics to be covered in each class period is attached.

GRADING POLICY

- Every effort will be made to fairly grade the exams and homework assignments. If you feel an error has been made in grading the exam, it must be turned-in at the end of the class period it was distributed. Any classmate’s exam as evidence of unfair grading will not be accepted. Any error in grading of a homework assignment must be submitted within a week for re-grading.

- If you miss a test, quiz, or an assignment, a zero grade will be assigned for that test, quiz or assignment. **No** make-up assignment and quiz will be given. However, you **may be** allowed a make-up test **only if**: you inform me, and arrangements are made, at least **one week** before the test date; **and** you have **not** missed more than one lecture till the first class test and more than three lectures over the entire course.
Final grade will be calculated using the grading distribution and final grade assessment provided below.

If the maximum score in a particular exam is less than 100 percent, that exam will be curved so that the maximum score is 100 percent. Each student’s score in that exam will be multiplied by (100/the maximum score in the exam). Homework assignment scores will not be curved. Also, final grade will not be curved.

**Grade Distribution**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Test - I</td>
<td>25%</td>
</tr>
<tr>
<td>Test - II</td>
<td>25%</td>
</tr>
<tr>
<td>Test – III (comprehensive, Optional)</td>
<td>25%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15%</td>
</tr>
<tr>
<td>Homework Assignments</td>
<td>10%</td>
</tr>
</tbody>
</table>

Note: Class Test III is optional but will not replace grades of any other test. If you are satisfied with your grade based on Class Test I, II, quizzes, and homework assignments, you are not required to take Class Test III. However, if you would like to take Class Test III, your grades will be calculated out of 100, i.e., based on all tests, quizzes, and homework assignments.

**Final Grade Assessment**

<table>
<thead>
<tr>
<th>Percent Scores</th>
<th>Final Letter Grade</th>
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<tbody>
<tr>
<td>90 and Above</td>
<td>A</td>
</tr>
<tr>
<td>Between 80 and 89</td>
<td>B</td>
</tr>
<tr>
<td>Between 70 and 79</td>
<td>C</td>
</tr>
<tr>
<td>Between 60 and 69</td>
<td>D</td>
</tr>
<tr>
<td>59 and Below</td>
<td>F</td>
</tr>
</tbody>
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Overall points in the course will be rounded off to the nearest whole number, e.g., 86.4 will be considered as 86 and 86.5 will be considered as 87.