

## **CE 570 SYLLABUS**

**Course Title and Number:** CE 570 Highway And Traffic Systems Design

**Instructor information:** Mandar Khanal, MEC 403 F, Phone: 426-1430, email: [mkhanal@boisestate.edu](mailto:mkhanal@boisestate.edu).

Office hours: Thursdays at 10:00 AM – 12:00 PM or By Appointment

**Course Description:** Planning, design, and operations of urban and rural highway systems.  
PREREQ: CE 360 and CE 370 (This is the BSU catalog description.)

**Objectives / Goals:**

1. To provide an in-depth study of highway design methods
2. To introduce computer-aided highway design methods

**Course Topics:**

1. Required topics from the text are listed under Course Schedule on page 2
2. MicroStation – Drawing Software
3. InRoads – Road Design Software

**Course Material:**

Text:

“A Policy on Geometric Design of Highways and Streets”, Washington, DC, American Association of State Highway and Transportation Officials, 1994.

Software documentation will either be available on loan or made available in the Transportation Lab (MEC 410).

**Computer Usage:**

Use of computers will be required. At the end of this course you will learn how to use the software products, Microstation and InRoads.

**Design Content:**

You will be required to complete a design project using InRoads.

**Grading:**

Grades will be based on the following distribution of points:

Reading Assignments/Quizzes:	50%
Software Assignment/Design Project:	50%

Letter grades: Scores $\geq 90$ :	A
Scores $\geq 80$ & $< 90$ :	B
Scores $\geq 70$ & $< 80$ :	C
Scores $> 55$ & $< 70$ :	D
Scores $\leq 55$ :	F

## **COURSE SCHEDULE**

MONTH	WEEK	DATES	READING ASSIGNMENT	CHAPTER
August	1	26-30		
September	2	2-6	Highway Functions	1
	3	9-13	Design Controls & Criteria	2
	4	16-20	Design Controls & Criteria	2
	5	23-27	Elements of Design	3
September/October	6	30-4	Elements of Design	3
October	7	7-11	Elements of Design	3
	8	14-18	Elements of Design	3
	9	21-25	Cross Section Elements	4
October/November	10	28-1	Cross Section Elements	4
November	11 <sup>+</sup>	4-8	Rural & Urban Arterials	7
	12	11-15	Rural & Urban Arterials	7
	13	18-22	At-Grade Intersections	9
	14	25-29	At-Grade Intersections	9
December	15	2-6	At-Grade Intersections	9
	16 <sup>++</sup>	9-13		

- <sup>+</sup>: Design project handed out.  
<sup>++</sup>: Design project due on the last day of class.

**Note:**

The course schedule is tentative. Revisions may be made during the semester.