Assiut University
Faculty of Engineering

Course Syllabus

Course Title **Course Number:** **Designation:**	Highways and Airports Engineering **هندسة الطرق والمطارات** Compulsory
Department:	Civil Engineering
Prerequisite(s):	Transportation Engineering
Instructor: **Instructor's Office:** **Instructor's e-mail**	Prof. Dr. Mahmoud Enieb Civil Engineering Building, Room 101 m.enieb@aun.edu.eg
Office Hours:	(12:00-14:00) (Sun)
Class Room: **Time:**	(8:00-9:30) (Wed)
Course Description:	This course mainly covers the aspects of highway geometric design. Also, it covers design controls and criteria including highway functional classification, design standards, design vehicles, sight distance, horizontal and vertical alignments, cross-section elements, intersection, and interchange, and applies all these criteria in a safe and economical design of different highway types. The course includes software applications using AutoCAD Civil 3D.
Textbook(s): **Other Required Material**	• N.J. Garber and L.A. Hoel, Traffic and Highway Engineering. • Huang, Y.H., Pavement Analysis and Design, SI version 4th edition, 2009. • American Association of State Highway and Transportation Officials, (AASHTO), A policy on Geometric design of Highways and Streets, 2011.
Course Objectives:	• Be able to understand factors affecting highway design. (a) • To familiarize students with the sight distance concept. (a,c,e) • Learn how to design horizontal and vertical alignment. (a. c, e) • To familiarize students with intersections and interchange design. (a, e) • Student will be able to design highway geometric project. (d, k).
Topics Covered:	1- Factors and criteria influencing in highway design. 2- Stopping and Passing sight distance (SSD, PSD). 3- Horizontal curves. 4- Superelevation. 5- Vertical curves. 6- Intersection and interchange.
Class Schedule: **Grading Plan:**	2 class sessions each week; 90 minutes (20 **Marks**) Project (10), Attends and participation (10) (30 **Marks**) Mid Exam (**100** Marks) Final Exam

General Notes:	All cellular phones must be turned off before class begins. Eating and/or drinking is not allowed in the classroom. Talking to a fellow student while the lecture is in progress will not be tolerated. You will be asked to leave the class if this behavior is disruptive. As required by the University, cases of academic dishonesty will be handled through the proper channels.