

Tamkang University Academic Year 111, 1st Semester Course Syllabus

Course Title	TRANSPORTATION ENGINEERING	Instructor	CHIH-LIN CHUNG
Course Class	TLTXB2B DEPARTMENT OF TRANSPORTATION MANAGEMENT, 2B	Details	<ul style="list-style-type: none"> ◆ General Course ◆ Required ◆ One Semester
Relevance to SDGs	SDG9 Industry, Innovation, and Infrastructure SDG11 Sustainable cities and communities		
D e p a r t m e n t a l A i m o f E d u c a t i o n			
I. To obtain professional transportation knowledge. II. To familiarize with execution of transportation practices. III. To master oral expression and teamwork. IV. To capture basic skills of system analysis. V. To emphasize professional transportation ethics.			
S u b j e c t D e p a r t m e n t a l c o r e c o m p e t e n c e s			
A. To obtain basic knowledge of transportation management.(ratio:50.00) B. To familiarize with practice-oriented professional skills.(ratio:10.00) C. To be capable of oral expression and teamwork.(ratio:10.00) D. To obtain basic ability of system analysis.(ratio:20.00) E. To build transportation ethics, care for humanity, and global visions.(ratio:10.00)			
S u b j e c t S c h o o l w i d e e s s e n t i a l v i r t u e s			
1. A global perspective. (ratio:10.00) 2. Information literacy. (ratio:20.00) 3. A vision for the future. (ratio:5.00) 4. Moral integrity. (ratio:5.00) 5. Independent thinking. (ratio:30.00) 6. A cheerful attitude and healthy lifestyle. (ratio:5.00) 7. A spirit of teamwork and dedication. (ratio:20.00) 8. A sense of aesthetic appreciation. (ratio:5.00)			

Course Introduction	<p>This course introduces transportation engineering-related concepts and guidelines, covering four parts as 1) Transportation Engineering Introduction, 2) Highway Engineering, 3) Railway Engineering, and 4) Airport Engineering. This course is designed for undergraduates in their sophomore year.</p>
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The correspondences between the course's instructional objectives and the cognitive, affective, and psychomotor objectives.

Differentiate the various objective methods among the cognitive, affective and psychomotor domains of the course's instructional objectives.

- I. Cognitive : Emphasis upon the study of various kinds of knowledge in the cognition of the course's veracity, conception, procedures, outcomes, etc.
- II. Affective : Emphasis upon the study of various kinds of knowledge in the course's appeal, morals, attitude, conviction, values, etc.
- III. Psychomotor: Emphasis upon the study of the course's physical activity and technical manipulation.

No.	Teaching Objectives	objective methods
1	Students could understand transportation engineering at an introductory level.	Cognitive
2	Students could discover related issues in daily life.	Cognitive
3	Classroom knowledge could match practical planning and design procedures.	Cognitive

The correspondences of teaching objectives : core competences, essential virtues, teaching methods, and assessment

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	A	123	Lecture, Discussion	Testing, Report(including oral and written)
2	BC	45	Lecture, Discussion	Testing, Study Assignments
3	DE	678	Lecture, Discussion	Testing, Discussion(including classroom and online)

Course Schedule

Week	Date	Course Contents	Note
1	111/09/05 ~ 111/09/11	Transportation Engineering Introduction	

2	111/09/12 ~ 111/09/18	Decision Making	
3	111/09/19 ~ 111/09/25	Geography and Network	
4	111/09/26 ~ 111/10/02	Project Evaluation	
5	111/10/03 ~ 111/10/09	Highway Engineering Introduction	
6	111/10/10 ~ 111/10/16	Grade	
7	111/10/17 ~ 111/10/23	Sight Distance	
8	111/10/24 ~ 111/10/30	Horizontal Curve	
9	111/10/31 ~ 111/11/06	Vertical Curve	
10	111/11/07 ~ 111/11/13	Midterm Exam Week	
11	111/11/14 ~ 111/11/20	Railway Introduction, Alignment, and Train	
12	111/11/21 ~ 111/11/27	Track, Turnout, Switch, and Siding	
13	111/11/28 ~ 111/12/04	Rail Station and Depot	
14	111/12/05 ~ 111/12/11	Airport Introduction and Master Plan	
15	111/12/12 ~ 111/12/18	Runway and Taxiway Planning	
16	111/12/19 ~ 111/12/25	Airport Terminal Planning	
17	111/12/26 ~ 112/01/01	Airport Ground Transportation	
18	112/01/02 ~ 112/01/08	Final Exam Week	
Requirement	This English Transportation Engineering class is for those who want to improve English listening, no matter from Calss 2A or 2B. If you don't like English, please take 2A's Chinese Transportation Engineering class.		
Teaching Facility	Computer, Projector		
Textbooks and Teaching Materials	1. Lecture notes. 2. Fundamentals of Transportation, Wikibooks (http://en.wikibooks.org/wiki/Fundamentals_of_Transportation)		
References	Internet data and publications.		

Number of Assignment(s)	4 (Filled in by assignment instructor only)
Grading Policy	◆ Attendance : % ◆ Mark of Usual : 40.0 % ◆ Midterm Exam : 30.0 % ◆ Final Exam : 30.0 % ◆ Other () : %
Note	This syllabus may be uploaded at the website of Course Syllabus Management System at http://info.ais.tku.edu.tw/csp or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at http://www.acad.tku.edu.tw/CS/main.php . ※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.