**Traffic Engineering**

**Course Description Form**

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| 1. Course Name: | | | | | | | | |
| Traffic Engineering | | | | | | | | |
| 1. Course Code: | | | | | | | | |
|  | | | | | | | | |
| 1. Semester / Year: | | | | | | | | |
| First semester / Third year | | | | | | | | |
| 1. Description Preparation Date: | | | | | | | | |
| 1/10/2023 | | | | | | | | |
| 1. Available Attendance Forms: | | | | | | | | |
| In class | | | | | | | | |
| 1. Number of Credit Hours (Total) / Number of Units (Total) | | | | | | | | |
| The. 2 hr Pract. 2 hr Tut.1 hr / 3 Units | | | | | | | | |
| 1. Course administrator's name (mention all, if more than one name) | | | | | | | | |
| Name: Dr. Adel Nahir  Email: Adil Abed <adil.abed@muc.edu.iq> | | | | | | | | |
| 1. Course Objectives | | | | | | | | |
| **Course Objectives** | | This Course Specification provides a concise summary of the main features of  the course and the learning outcomes that a typical student might  reasonably be expected to achieve and demonstrate if he/she takes full  advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.  Gaining the knowledge and skills related to traffic engineering data analysis  and take the engineering decision based on the theories and equations  related to traffic engineering | | | | | | |
| 1. Teaching and Learning Strategies | | | | | | | | |
| **Strategy** | | | Type something like: The main strategy that will be adopted in delivering this module  is to encourage students’ participation in the exercises, while at the same time  refining and expanding their critical thinking skills. This will be achieved through  classes, interactive tutorials and by considering types of simple experiments involving  some sampling activities that are interesting to the students. | | | | | |
| 1. Course Structure | | | | | | | | |
| **Week** | **Hours** | | | **Required Learning Outcomes** | **Unit or subject name** | | **Learning method** | **Evaluation method** |
|  | 3 | | | Characteristics of Transportation | Characteristics of Driver ,vehicle ,Road &pedestrian | | Theoretical | Several was(Exams Assignment) |
|  | 3 | | | Types of intersections | Intersections | | Several was(Exams Assignment) |
|  | 3 | | | Study of traffic volume | Traffic volume | | Several was(Exams Assignment) |
|  | 3 | | | Study of spot speed | Spot speed | | Several was(Exams Assignment) |
|  | 3 | | | Monthly Exam | Monthly Exam | | Monthly Exam |
|  | 3 | | | Study of travel time &delay | Travel Time &Delay | | Several was(Exams Assignment) |
|  | 3 | | | Traffic Flow Theory | Relationship between speed m volume &Density | | Several was(Exams Assignment) |
|  | 3 | | | Traffic Flow Theory | Greenshield Model | | Several was(Exams Assignment) |
|  | 3 | | | Traffic Flow Theory | Greenbrg Model | | Several was(Exams Assignment) |
|  | 3 | | | Traffic Flow Theory | Probability Theory &Sight Triangle | | Several was(Exams Assignment) |
|  | 3 | | | Signalized Intersection | Signalized Intersection | | Monthly Exam |
|  | 3 | | | Signalized Intersection | Introduction in Signalized Intersection | | Several was(Exams Assignment) |
|  | 3 | | | Signalized Intersection | Examples | | Several was(Exams Assignment) |
|  | 3 | | | Parking Study | Types of parking | | Several was(Exams Assignment) |
|  | 3 | | | Level of Service of Two lane highway | Example of LOS | | Several was(Exams Assignment) |
| 1. Course Evaluation | | | | | | | | |
| 1. Final Exam: 60% 2. Monthly Exams: 15% 3. Reports and Assignments: 10% 4. Attendance and Daily Participation: 10% 5. Oral Evaluation: 5% | | | | | | | | |
| 1. Learning and Teaching Resources | | | | | | | | |
| Required textbooks (curricular books, if any) | | | | | | Garber et.al., (2010), "Traffic and Highway Engineering". | | |
| Main references (sources) | | | | | |  | | |
| Recommended books and references (scientific journals, reports...) | | | | | | • AASHTO "A Policy on Geometric Design of Highways and Streets", American Association of State Highway and Transportation officials, USA,2011. • Roger P. Roess et.al. (2011) "Traffic Engineering", Fourth Edition. • Paul H.Wright, (1996), "Highway Engineering". • Highway Capacity Manual, (2010), (2000), (HCM), • Kadiyali, (2010) "Traffic Engineering and Transport Planning". • Khisty, C. J. and B. K. Lall (2016). Transportation Engineering an introduction, Pearson India | | |
| Electronic References, Websites | | | | | | <https://www.udemy.com/course/highway-engineering-full->  course/?utm\_source=adwords&utm\_medium=  udemyads&utm\_campaign=DSA\_Catchall\_  1a.EN\_cc.ROW&utm\_content=deal4584&utm  \_term=\_\_ag\_88010211481.\_ad\_535397282061  \_kw\_de\_c\_\_dm\_plti\_dsa52949608673\_.\_\_  1007949\_.\_pd\_&matchtype=&gclid=CjwKC  AjwvpCkBhB4EiwAujULMtH2y3iFFenjqm\_  q7puJn4BaE52\_h1kHPHUPxkYIRPHJjVDB7  d35vxoCFMEQAvD\_BwE | | |