# AYDIN ADNAN MENDERES UNIVERSITY
# COURSE INFORMATION FORM

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|---|---|---|---|---|---|---|---|---|---|
| Course Title | Introduction to Transportation Planning | | | | | | | | |
| Course Code | MCE550 | | Couse Level | | Second Cycle (Master's Degree) | | | | |
| ECTS Credit | 8 | Workload | 200 *(Hours)* | Theory | 3 | Practice | 0 | Laboratory | 0 |
| Objectives of the Course | To give information about transportation planning | | | | | | | | |
| Course Content | Transportation and social-economical development. Development of transport. Transport modes. Land Transportation.Air transportation.Water transportation.Pipelines, Infrastructures of transport modes. Terminals. Operating characteristics of transport modes. Performance criteria. Capacity. Traffic flexibility. Safety. Urban transport systems. Future developments in transportation. Aim of transportan planning. Outline of transportation planning process. Environmental effects of transportation Management in transportation. | | | | | | | | |
| Work Placement | N/A | | | | | | | | |
| Planned Learning Activities and Teaching Methods | Explanation (Presentation), Discussion, Individual Study, Problem Solving | | | | | | | | |
| Name of Lecturer(s) | Lec. Mehmet Metin MUTLU | | | | | | | | |

| **Assessment Methods and Criteria** | | |
|---|---|---|
| Method | Quantity | Percentage (%) |
| Midterm Examination | 1 | 30 |
| Final Examination | 1 | 40 |
| Assignment | 2 | 30 |

| **Recommended or Required Reading** | |
|---|---|
| 1 | Ortuzar, J.D., Willumsen, L.G. Modelling Transport, John Wiley and Sons, 4th Edition, 2011. |
| 2 | Kanafani, A. Transportation Demand Analysis, McGraw-Hill, 1983. |
| 3 | Papacostas, C.S., Prevedouros, P.D., Transportation Engineering and Planning, 3rd Edition, Prentice Hall, 2001. |
| 4 | Marvin L. Manheim: Fundamentals of Transportation Systems Analysis, The MIT Press, 1979. |

| **Week** | **Weekly Detailed Course Contents** | |
|---|---|---|
| 1 | Theoretical | Introduction |
| 2 | Theoretical | Planning requirement and types |
| 3 | Theoretical | Relationship between transportation and land use |
| 4 | Theoretical | New approaccheS for transportation planning |
| 5 | Theoretical | New approaccheS for transportation planning |
| 6 | Theoretical | Basic principles of modelling |
| 7 | Theoretical | Demand forecasting models |
| 8 | Theoretical | Trip generation |
| 9 | Theoretical | Trip distribution |
| 10 | Intermediate Exam | Midterm exam |
| 11 | Theoretical | Modal split |
| 12 | Theoretical | Traffic Assignment |
| 13 | Theoretical | Traffic Assignment |
| 14 | Theoretical | Homework presentations |
| 15 | Theoretical | Homework presentations |
| 16 | Final Exam | Final exam |

| **Workload Calculation** | | | | |
|---|---|---|---|---|
| Activity | Quantity | Preparation | Duration | Total Workload |
| Lecture - Theory | 14 | 0 | 3 | 42 |
| Assignment | 2 | 30 | 0 | 60 |
| Individual Work | 14 | 0 | 3 | 42 |
| Midterm Examination | 1 | 25 | 2 | 27 |

| | | | | |
|---|---|---|---|---|
| Final Examination | 1 | 27 | 2 | 29 |
| | | | Total Workload (Hours) | 200 |
| | | | [Total Workload (Hours) / 25*] = **ECTS** | 8 |
| **25 hour workload is accepted as 1 ECTS* | | | | |

| **Learning Outcomes** | |
|---|---|
| 1 | Will be able to know plans type and planning requirements |
| 2 | Will be able to know sustainable planning |
| 3 | Will be able to know four step transportation planning |
| 4 | Will be able to know transportation and land use relationship |
| 5 | Will be able to evaluate related literature |

| **Programme Outcomes** *(Civil Engineering Master)* | |
|---|---|
| 1 | To be able to develop expertise knowledge in a Civil engineering area founded on their graduate competence. |
| 2 | To be able to use the theoretical and practical expertise knowledge gained in their specialty area. |
| 3 | To be able to use the information, problem solving and / or practical skills from the field, in interdisciplinary studies. |
| 4 | To be able to create new knowledge by integrating their knowledge area with the knowledge coming from different disciplines; and solve problems that need expertise by using scientific research methods |
| 5 | To be able to solve the problems related to his/her area by using appropriate research methods |
| 6 | To be able to devise a problem in their specialty area, develop a solution methodology, solve the problem, and interpret the results and take action if necessary |
| 7 | To be able to criticize the knowledge in their specialty area, guide the learning process, and independently direct high level studies |
| 8 | To be able to systematically communicate the recent developments in their specialty area and their own studies to groups both inside and outside their specialty area, orally, in writing and visually |
| 9 | To be able to use computer software at a level required by their specialty area with drawing upon information and communication technology at a high level |
| 10 | To be able to introduce scientific, technological, social and cultural advancements in the field of civil engineering and to contribute to the process of being an information of the society and to sustain it. |
| 11 | To be conscious of professional and ethical responsibility and contribute to the establishment of this consciousness. |
| 12 | To be able to protect social, scientific, and ethical values during collection, interpretation, and dissemination stages of the data associated with their specialty area; instruct and supervise these values |
| 13 | To be able to use at least one foreign language in a level to follow current developments related to the field. |

**Contribution of Learning Outcomes to Programme Outcomes** *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

| | L1 | L2 | L3 | L4 | L5 |
|---|---|---|---|---|---|
| P1 | 5 | 4 | 5 | 5 | 4 |
| P2 | 4 | 4 | 4 | 4 | 5 |
| P3 | 5 | 5 | 5 | 5 | 4 |
| P4 | 4 | 4 | 4 | 4 | 5 |
| P5 | 5 | 5 | 5 | 5 | 5 |
| P6 | 4 | 4 | 4 | 5 | 4 |
| P7 | 5 | 5 | 5 | 4 | 5 |
| P8 | 4 | 4 | 4 | 5 | 4 |
| P9 | 5 | 5 | 5 | 4 | 5 |
| P10 | 4 | 4 | 4 | 5 | 4 |
| P11 | 5 | 5 | 5 | 5 | 5 |
| P12 | 4 | 4 | 5 | 5 | 4 |
| P13 | 5 | 4 | 4 | 4 | 4 |