

**TRANSPORTATION OF DANGEROUS GOODS**

**Syllabus**

| Course Description                                                                                                                          |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------------------|------|---|
| Name                                                                                                                                        | Code                                                                                | Semester                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | T+A Hour                | Credit                    | ECTS |   |
| TRANSPORTATION of DANGEROUS GOODS                                                                                                           |                                                                                     | ULY4171110                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fall Semester           | 3+0                       | 3    | 5 |
| <b>Prerequisites Courses</b>                                                                                                                |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| <b>Recommended Elective Courses</b>                                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| <b>Language of Instruction</b>                                                                                                              |                                                                                     | Turkish                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         |                           |      |   |
| <b>Course Level</b>                                                                                                                         |                                                                                     | First Cycle (Bachelor's Degree)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| <b>Course Type</b>                                                                                                                          |                                                                                     | Elective                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                           |      |   |
| <b>Course Coordinator</b>                                                                                                                   |                                                                                     | Assist.Prof. Özlem İLDAY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                           |      |   |
| <b>Name of Lecturer(s)</b>                                                                                                                  |                                                                                     | Assist.Prof. Özlem İLDAY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                           |      |   |
| <b>Assistant(s)</b>                                                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| <b>Aim</b>                                                                                                                                  |                                                                                     | Aimed to ensure students to have knowledge about the transportation, packing and storage of dangerous goods with ADR, RID, IMDG, ADN, IATA(DGR) legislations and provide guidance to students who want to specialize in this subject.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                         |                           |      |   |
| <b>Course Content</b>                                                                                                                       |                                                                                     | This course contains; Identification and General Characteristics of Dangerous Goods Classes,Identification and General Characteristics of Dangerous Goods Classes,Identification and General Characteristics of Dangerous Goods Classes,Packing, Marking and Labeling of Dangerous Goods,Vehicles Used in the Transport of Dangerous Goods,Vehicles Used in the Transport of Dangerous Goods,Parties and Responsibilities Legal Regulations,The European Agreement concerning the International Carriage of Dangerous Goods-ADR,The International Maritime Dangerous Goods (IMDG) Code,Regulations concerning the Interanitorial Transport of Dangerous Goods by Rail,The Regulations of the Carriage of Dangerous Goods in the Rhine (ADNR),The International Air Transport Association (IATA) Dangerous Goods Regulations,Dangerous Goods Transport Documentation,Dangerous Goods Transport Documentation. |                         |                           |      |   |
| <b>Course Learning Outcomes</b>                                                                                                             |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Teaching Methods</b> | <b>Assessment Methods</b> |      |   |
| 1 - Will be able to define dangerous goods classes.                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 1.1 - Defines the dangerous goods.                                                                                                          |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 1.2 - Classifies dangerous substances.                                                                                                      |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 2 - Will be able to understand the basic concepts of dangerous goods transportation and its importance among other types of transportation. |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 2.1 - Knows the limitations of dangerous goods.                                                                                             |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 2.2 - Understands that there are dangerous goods exemption rules.                                                                           |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 3 - Will be able to describe the packaging, marking and labeling processes of hazardous substances and the tools used in these processes.   |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 3.1 - Knows the different vehicles used to carry dangerous goods in air, sea, railway and highways.                                         |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 3.2 - Explains the different responsibilities of the parties in the packaging, marking and labeling processes.                              |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 4 - Will be able to explain the basic documents in the transportation of dangerous goods.                                                   |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 4.1 - Explains the columns in the dangerous goods book.                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 4.2 - Knows the shipper declaration form and transportation documents.                                                                      |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 5 - Will be able to explain the acceptance, storage and aircraft loading processes of hazardous materials.                                  |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 5.1 - Knows hazardous materials handling processes.                                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| 5.2 - Knows the parties involved in reporting and informing dangerous goods.                                                                |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 16, 9                   | A                         |      |   |
| <b>Teaching Methods</b>                                                                                                                     |                                                                                     | 16: Question - Answer Technique, 9: Lecture Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                           |      |   |
| <b>Assessment Methods</b>                                                                                                                   |                                                                                     | A: Traditional Written Exam                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                         |                           |      |   |
| <b>Lecture Schedule</b>                                                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| Sequence                                                                                                                                    | Topics                                                                              | Preliminary Preparation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         |                           |      |   |
| 1                                                                                                                                           | Identification and General Characteristics of Dangerous Goods Classes               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| 2                                                                                                                                           | Identification and General Characteristics of Dangerous Goods Classes               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| 3                                                                                                                                           | Identification and General Characteristics of Dangerous Goods Classes               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| 4                                                                                                                                           | Packing, Marking and Labeling of Dangerous Goods                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| 5                                                                                                                                           | Vehicles Used in the Transport of Dangerous Goods                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| 6                                                                                                                                           | Vehicles Used in the Transport of Dangerous Goods                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| 7                                                                                                                                           | Parties and Responsibilities Legal Regulations                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| 8                                                                                                                                           | The European Agreement concerning the International Carriage of Dangerous Goods-ADR |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| 9                                                                                                                                           | The International Maritime Dangerous Goods (IMDG) Code                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| 10                                                                                                                                          | Regulations concerning the Interanitorial Transport of Dangerous Goods by Rail      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| 11                                                                                                                                          | The Regulations of the Carriage of Dangerous Goods in the Rhine (ADNR)              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| 12                                                                                                                                          | The International Air Transport Association (IATA) Dangerous Goods Regulations      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| 13                                                                                                                                          | Dangerous Goods Transport Documentation                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| 14                                                                                                                                          | Dangerous Goods Transport Documentation                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                           |      |   |
| <b>Evaluation Methods</b>                                                                                                                   |                                                                                     | <b>Weight(%)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         |                           |      |   |
| Midterm Exam                                                                                                                                |                                                                                     | 40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                           |      |   |
| General Exam                                                                                                                                |                                                                                     | 60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                           |      |   |

**School of Business and Management Sciences / Logistics Management**  
**2023 - 2024 Academic Year**  
**TRANSPORTATION of DANGEROUS GOODS**  
**Syllabus**

**Resources**

- 1 - Hava Kargo ve Tehlikeli Maddeler (Air Cargo and Dangerous Goods), Anadolu Üniversitesi, 2016.
  - 2 - Tehlikeli Madde Lojistiği ve İş Güvenliği (Dangerous Goods Logistics and Work Safety), Anadolu Üniversitesi, 2016.
- Moving Boxes by Air, Morrell, P., Klein, T., Routledge, 2nd ed., 2019.
  - Dangerous Goods Regulation, IATA, 65th Ed., 2024.