

### AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

| Course Title                                     | Factory Organization and Management  |  |   |                                  |   |            |    |
|--|--|--|---|----------------------------------|---|------------|----|
| Course Code                                      | MKE157   | Couse Level  |   | Short Cycle (Associate's Degree) |   |            |    |
| ECTS Credit 4                                    | Workload 100 (Hours)   | Theory   | 2 | Practice                         | 0 | Laboratory | 0  |
| Objectives of the Course                         | It is aimed to give information about how to make the factory organization and how to operate the organization by coordinating the existing resources.   |  |   |                                  |   |            |    |
| Course Content                                   | Introduction of factory and construction site main units, drawing of factory and construction site layout plans, supply and waste water treatment processes in factories, thermal process of factory process water and other fluids, introduction of factory compressed air systems, introduction of factory and construction site energy systems, introduction of dust and exhaust systems , Introducing factory energy systems, comparing sample factory and construction site layout plans and using Enterprise Resource Planning (ERP) in factories. |  |   |                                  |   |            |    |
| Work Placement                                   | N/A  |  |   |                                  |   |            |    |
| Planned Learning Activities and Teaching Methods |  | Explanation (Presentation), Discussion, Case Study, Individual Study |   |                                  |   |            | ły |
| Name of Lecturer(s) Assoc. Prof. Ali Kemal ÇAK   |  | KIR  |   |                                  |   |            |    |

| Assessment Methods and Criteria |  |          |            |             |  |  |
|---------------------------------|--|----------|------------|-------------|--|--|
| Method                          |  | Quantity | Percentage | centage (%) |  |  |
| Midterm Examination             |  | 1        | 40         |             |  |  |
| Final Examination               |  | 1        | 70         |             |  |  |

# **Recommended or Required Reading**

1 Factory Organization and Management Course notes

| Week | Neekly Detailed Course Contents |   |  |  |  |  |
|------|---------------------------------|---|--|--|--|--|
| 1    | Theoretical                     | Introduction of factory and construction-site main units            |  |  |  |  |
| 2    | Theoretical                     | Introduction of factory and construction site main units            |  |  |  |  |
| 3    | Theoretical                     | Drawing of factory and construction site layout plans               |  |  |  |  |
| 4    | Theoretical                     | Drawing of factory and construction site layout plans               |  |  |  |  |
| 5    | Theoretical                     | Water supply and waste water treatment in factories                 |  |  |  |  |
| 6    | Theoretical                     | Thermal treatment of factory process water and other fluids         |  |  |  |  |
| 7    | Theoretical                     | Introduction of factory compressed air systems                      |  |  |  |  |
| 8    | Intermediate Exam               | Mid-term  |  |  |  |  |
| 9    | Theoretical                     | Introduction of dust holding and exhaust systems                    |  |  |  |  |
| 10   | Theoretical                     | Introduction of factory energy systems                              |  |  |  |  |
| 11   | Theoretical                     | Examining sample factory and construction site layouts by comparing |  |  |  |  |
| 12   | Theoretical                     | Examining sample factory and construction site layouts by comparing |  |  |  |  |
| 13   | Theoretical                     | Enterprise Resource Planning (ERP) use in factories                 |  |  |  |  |
| 14   | Theoretical                     | Enterprise Resource Planning (ERP) use in factories.                |  |  |  |  |

# **Workload Calculation**

| Activity            | Quantity | Preparation | Duration | Total Workload |
|---------------------|----------|-------------|----------|----------------|
| Lecture - Theory    | 14       | 2           | 2        | 56             |
| Assignment          | 5        | 2           | 2        | 20             |
| Midterm Examination | 1        | 11          | 1        | 12             |
| Final Examination   | 1        | 11          | 1        | 12             |
|                     | 100      |             |          |                |
|                     | 4        |             |          |                |

\*25 hour workload is accepted as 1 ECTS

#### Learning Outcomes

1 Gains knowledge of factory operation and construction site main units.



- 2 Draws the plant operation and construction site layout plans.
  3 Gains knowledge of thermal processes of factory process waters and other fluids.
  4 Gains knowledge of factory and construction site energy systems.
- 5 Have knowledge about Enterprise Resource Planning (ERP) use in factories.

## Programme Outcomes (Machinery)

| Flogia |  |
|--------|--|
| 1      | To be able to know general properties and usage areas of industrial materials and make selection.  |
| 2      | Design of machine elements.  |
| 3      | To be able to make production using machining and welding machines without machining.  |
| 4      | To be able to make measurement and quality control processes with machine tools for measuring and control equipment.   |
| 5      | To be able to make necessary corrections in order to determine the mistakes by using the necessary non-destructive test methods in welded parts and to eliminate these mistakes.   |
| 6      | Preventive measures to prevent the occurrence of these faults by preliminarily determining the faults that will occur in the machines as statistical data and to make necessary interventions in case of breakdown.  |
| 7      | They can make drawings of work pieces on CAD station and apply them on CNC looms. Ability to operate and use CAD / CAM and AUTOCAD package programs.   |
| 8      | To be able to transfer engineering science and technology to practice by making calculations in the direction of scientific principles.  |
| 9      | It can repair the elements in pneumatic and hydraulic systems which are indispensable elements of automatic control systems and can regulate their work.   |
| 10     | The student who is trained as a machine technician during the whole program knows that industrial task definition in the field of work is error finding, problem solving, decision making, planning of functions and activities and they can be achieved by aiming to acquire these characteristics. |

#### 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  | 2  | 3  | 3  | 3  | 3  |
| P2  | 3  | 5  | 2  | 3  | 2  |
| P3  | 2  | 5  | 4  | 3  | 5  |
| P4  | 5  | 2  | 5  | 3  | 4  |
| P5  | 4  | 4  | 2  | 3  | 3  |
| P6  | 3  | 1  | 3  | 3  | 2  |
| P7  | 2  | 2  | 2  | 2  | 5  |
| P8  | 5  | 5  | 4  | 4  | 5  |
| P9  | 5  | 4  | 5  | 3  | 3  |
| P10 | 2  | 2  | 3  | 2  | 5  |