

## Content

| Course Code | Course Name           | Semester | Theory | Practice | Lab | Credit | ECTS |
|-------------|-----------------------|----------|--------|----------|-----|--------|------|
| G262        | Production Management | 4        | 3      | 0        | 0   | 3      | 6    |

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|------------------------|--|
| Prerequisites          |  |
| Admission Requirements |  |

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| Language of Instruction | Turkish                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Course Type             | Compulsory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Course Level            | Bachelor Degree                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Objective               | The aim of this course is to present the concepts used in effective management of production systems and to learn how to develop solutions for problems related to the operations management.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Content                 | <p>Week 1.: Presentation in chronological order techniques and nomenclature used in operations management.</p> <p>Week 2.: Supply chain strategy, supply chain performance measurement, bullwhip effect, outsourcing, mass customization.</p> <p>Week 3.: Strategic capacity management, capacity utilization, economies of scale, learning curve.</p> <p>Week 4.: Lean production, Toyota Production System.</p> <p>Week 5.: Demand management, qualitative forecasting methods, quantitative forecasting methods.</p> <p>Week 6.: Aggregate sales and operations planning</p> <p>Week 7.: Inventory control, inventory costs, inventory models</p> <p>Week 8.: Materials requirements planning, Push and Pull systems, Manufacturing Resource Planning.</p> <p>Week 9.: Midterm exam</p> <p>Week 10.: Process analysis, process flowcharting, process performance measurement.</p> <p>Week 11.: Manufacturing process selection and design.</p> <p>Week 12.: Service process selection and design.</p> <p>Week 13.: Quality management, Total Quality Management, Six Sigma Quality, Benchmarking, ISO standards, service quality measurement.</p> <p>Week 14.: Product design, product development process, quality function deployment.</p> |
| References              | <ul style="list-style-type: none"><li>• Kobu, B., Üretim Yönetimi, Beta Basım A.Ş., 13. Baskı, 2006.</li><li>• Chase, R.B., Jacobs, F.R., Aquilano, N.J., Operations Management for Competitive Advantage, McGraw-Hill, 11. Baskı, 2006.</li><li>• Cases related to the topics</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Theory Topics

| Week | Weekly Contents                       |
|------|---------------------------------------|
| 1    | Introduction to Operations Management |
| 2    | Decision Making                       |
| 3    | Forecasting                           |
| 4    | Facility Location                     |
| 5    | Line Balancing                        |
| 6    | Job Design                            |
| 7    | Work Measurement                      |
| 8    | Inventory Control                     |
| 9    | Aggregate Planning                    |

| Week | Weekly Contents       |
|------|-----------------------|
| 10   | MRP, DRP, MRPII, ERP  |
| 11   | Just-in-Time          |
| 12   | Operations Scheduling |
| 13   | Project Management    |
| 14   | Quality Control       |