

**IE520 TOTAL QUALITY ENGINEERING AND MANAGEMENT
Fall 2018**

Instructor : Ali R. Kaylan (kaylan@boun.edu.tr)

Engineering Building, Room: M4032

Office-Hours: Tuesday 14:00-16:00, Wednesday 15:00-17:00.

Teaching Assistant : Gizem Taş (gizem.tas@boun.edu.tr)

Office-Hours: M4015 Monday 15:00-17:00

Lecture Hours : Tu 11:00-12:50 M1170 W 14:00-14:50 M1152

Course Web Site : moodle.ie.boun.edu.tr

Course Description: Quality leadership is recognized as the key to business success. Strong customer focus on all products and services, teamwork throughout all areas of the organization is essential for company competitiveness. This course aims at covering the fundamental issues of total quality management. Cost aspects, quality improvement tools, process management, online and offline quality control, innovation management and benchmarking are discussed. Actual case studies from industry will supplement the lectures.

Prerequisites: None.

Textbook: James R. Evans, William M. Lindsay, *The Management and Control of Quality*, Thomson South-Western, 6th Edition, 2005.

References:

1. Besterfield, Dale H. , *Total Quality Management*, Prentice Hall, 3rd Edition, 2003
2. Rao, Carr, Dambolena, Kopp, Martin, Rafii, Schlesinger, *Total Quality Management: A Cross-Functional Perspective*, John Wiley & Sons, Inc., 1996
3. Feigenbaum, A. V., *Total Quality Control*, McGraw-Hill Inc., 1991.

Topics:	Chapters	Weeks
1. Fundamentals of TQM and TQM Evolution	1-4	1 (Sep25)
2. Excellence Models, Quality Awards	3	2 (Oct2)
3. Leadership, Strategic Planning	5,8	3 (Oct9)
4. Process Management	7,13	4 (Oct16)
5. Lean Production and Six Sigma	10	5 (Oct23)
6. Statistical Process Control	14	6 (Oct30)
Midterm Exam Monday Nov. 7, 2018 17:00-19:00		
7. Design Quality - Quality Function Deployment	12	7 (Nov 6)
8. Reliability Engg. FMEA	12	8 (Nov13)
9. Innovation Management and TQM	10	9 (Nov20)
10. TRIZ Methodology		10 (Nov27)
11. Benchmarking		11 (Dec4)
12. Learning Organization	9	12 (Dec11)
13. Project Presentations		13 (Dec18)

Final Exam

Grading:

10% (Assignments) + 20% (Teamwork) + 10% (In-Class Participation) + 30% (Midterm) + 30% (Final Exam) = 100%

Midterm Exam: Oct. 30, 2017 (90 Minutes – Coverage: Topics 1-6)

Final Exam: 90 minutes – Coverage: Topics 1-13.

Computer Usage:

Students use general statistical package and spreadsheet programs for topics 5, 6 and 8.