COURSE DATA

ETM 551 INTEGRATED PRODUCT DEVELOPMENT
SPRING 2021

Time: ThThTh / 111213
Place: M1
Course Web Page: www.mslab.boun.edu.tr/courses.htlm

INSTRUCTOR

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TEACHING ASSISTANTS

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TEXT BOOK

P. Trott,"**Innovation Management and New Product Development**", Pearson, NY, 2017

Karl T. Ulrich and Steven D. Eppinger, "**Product Design and Development**", Third Edition McGraw-Hill, NY, 2004

Merle Crawford, Anthony Di Benedetto, "New Products Management", 8/e, McGraw Hill, New York, 2004.

REFERENCES

George E. Dieter, Engineering Design: A Materials and Processing Approach, McGraw Hill, NY, 2000.

The Role of Materials in Economic Growth, Scientific American, October 1986.

- M. P. Groover, Fundamentals of Modern Manufacturing, Materials, Processes, and Sys- tems, Prentice Hall, Inc.,

New Jersey, 1996.

- Metals Handbook, American Society for Materials.

WEB SOURCES

Society

Mat. Lab. ASM ASME

Location

www.mslab.boun.edu.tr www.asminternational.org www.asme.org

ASTM www.astm.org TMS www.tms.org MakMO www.m-mo.org.tr

TENTATIVE COURSE SCHEDULE

Weeks Topics and Objectives

- 1 Introduction
- 2 Product Planning
- 3 Identifying Customer Needs
- 4 Product Specifications
- 5 Concept Generation
- 6 Concept Selection

- 7 Concept Testing
- 8 Product Architecture
- 9 Industrial Design
- 10 Design for Manufacturing
- 11 Prototyping
- 12 Patents and Intellectual Property
- 13 Product Development Economics
- 14 Managing Projects

GRADING POLICY
Small Project: 20%

Term Project: 20% Midterm: 30% Final Exam: 30% Total: 100%

NOTES

- Open book examinations.
- Class attendance strongly recommended.
- All reports typewritten and supplied as hardcopy and a file.
  INTENDED OUTCOMES

- Ability to communicate in written, oral and graphical forms.

- The broad education necessary to understand the impact of engineering solutions in a global/societal context.

- A knowledge of contemporary issues.

- Motivation to pursue continual professional development.