

TECHNOLOGY FORECASTING AND ASSESSMENT
ETM 5271
COURSE SYLLABUS – SUMMER 2002

INSTRUCTOR

Dr. David Pratt
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Class Sessions: Tue 2:00 - 4:50 p.m.
 June 4, 11, 18, 25, July 2
 OSU: 128 Cordell
Office Hours: by appointment or by email

COURSE DESCRIPTION

This course presents a framework and analytical tools for developing technological foresight. It introduces technology monitoring, forecasting, and assessment in the context of one or more families of emerging technologies.

PREREQUISITES

Graduate Standing or Permission of Instructor

COURSE SCHEDULE

This course is being simultaneously offered at Oklahoma State University and multiple off-campus locations. The class lectures will be broadcast live via two-way interactive video from 2:00 – 4:50 p.m. Course lectures are also available on CD and on the course web site.

TEXT

Vanston, J.H., Technology Forecasting: An Aid to Effective Technology Management,
Technology Futures Inc., Austin, TX, 1998.

REFERENCES

Martino, J.P., *Technological Forecasting for Decision Making*, North-Holland, NY, 1983.

Porter, A.L., A.T. Roper, T. Mason, R. Rossini, T. Roper, J. Banks, *Forecasting and Management of Technology*, John Wiley & Sons, NY, 1991.

Sullivan, W.G. and W.W. Claycombe, *Fundamentals of Forecasting*, Prentice-Hall, Reston, VA, 1977.

OBJECTIVES

1. To develop an understanding of the framework and importance of technology forecasting.
2. To gain exposure to concepts and tools used for technology forecasting.
3. To learn how to develop a technology forecasting program for your organization.

METHOD OF INSTRUCTION

One 170-minute lecture/discussion will be presented each week for five weeks. Class sessions will be devoted primarily to presentation, discussion, and debate of text and literature material. Course grades will be based on homework assignments and a pass/fail final exam.

Tentative Schedule of Topics

The tentative schedule of course topics is shown below. Specific reading assignments in support of this schedule will be provided in class. You are expected to have read the assigned material before coming to class and to participate actively in discussions either live or via email.

Introduction to Technology Forecasting

TF Techniques

Delphi & NGT

Trend Extrapolation

Growth, Substitution, and Envelope Curves

Surveillance Techniques

Visualization

Causal Models

Analogy

Scenarios

Morphological Analysis

Initiating, Conducting and Utilizing a Technology Forecasting Program

Homepage

Most of the materials used in this course are available via the World Wide Web at the following location

<http://www.okstate.edu/ceat/msetm/courses/etm5271/>

Some of the material is proprietary and will not be made available for web access