

COURSE SYLLABUS
Southeast Missouri State University

Department of Industrial & Engineering Technology

Course No: IM-605

Title of Course: Innovation

New: Spring 2000

- I. Catalog Description and Credit Hours of Course: This course is aimed at preparing students for careers in industry. A team of students will identify and develop solutions to practical problems or market needs. Students will develop creative problem solving abilities and other skills necessary for innovative thought and innovation. (3 credit hours)
- II. Prerequisite (s): Graduate Student Status, IM-602, or Permission of Instructor
- III. Purpose or Objectives of the course: Upon completion of this course, the students should be able to:
 - A. resolve and prevent conflicts between Research and Development, manufacturing, and marketing in a high technology firm.
 - B. cope with and prevent management crises as the company grows from a startup to a fully mature high technology firm.
 - C. keep the entrepreneurial spirit and encourage innovation as the company develops into a formal administrative organization.
 - D. identify Research and Development bottlenecks and effectively open them.
 - E. identify reasons for frequent time and cost overruns in Research and Development projects and how management can effectively reduce these phenomena.
 - F. adapt successful mass production techniques such as Just-In-Time, On-Job Training and Total Quality Management to the real world of high-technology Research and Development.
 - G. identify how globalization of markets is affecting the high technology industry.
 - H. organize an effective global marketing presence.
 - I. grow in high technology by strategic acquisitions.
- IV. Expectations of Students:
 - A. Students will be expected to attend class regularly and be responsible for all information presented in class.

- B. Students will be expected to participate and contribute to the class as appropriate.
 - C. Students will be expected to perform satisfactorily on all assignments. (No credit for late work or handwritten assignments).
 - D. Students will be expected to take all examinations on assigned dates.
- V. Course Content or Outline (Weeks):
- A. Introduction (1)
 - B. The Critical Factors for Success (2)
 - C. Creating a Favorable Environment for Inventors (3)
 - D. Minimizing the Research and Development Cycle (4)
 - E. Organizing for Smooth Transition from R&D to Production (5)
 - F. Problems with Managing Multi-product Organizations (6)
 - G. Marketing of High Technology, People, Strategies, and Timing (7)
 - H. MIDTERM (8)
 - I. The Global High Technology Market (9)
 - J. Growing in High Technology by Acquisitions (10)
 - K. Organizing Strong Product Support (11)
 - L. How to Keep Ahead of Competition and Perpetuate Support (12)
 - M. A Case Study (13)
 - N. Work on Project (14-15)
 - O. Final (16)
- VI. Textbook (s) and/or Other Required Materials or Equipment:
- Managing High Technology and Innovation, Prentice Hall, (1998) ISBN: 0-02-370462-4
- VII. Basis for Student Evaluation: Students will be evaluated based upon the following:
- A. Written Exams (50%)

- B. Project (30%)
- C. Paper and Presentations (20%)
- D. Grading scale:
 - 1. 90 - 100 = A
 - 2. 80 - 89 = B
 - 3. 70 - 79 = C
 - 4. Below 70% = F

VIII. Disabilities Statement: If you have special needs addressed by the Americans With Disabilities Act and need course materials in alternative format, notify your course instructor immediately. Reasonable efforts will be made to accommodate your special needs.