

<b><u>AGT-950</u></b>	<b><u>Strategic Technological Innovation Management</u></b>	<b>3(3-0)</b>
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1. **Course Description**

This course provides the student with a general overview of the planning process of business strategies. Innovation provides both exceptional opportunities and steep challenges. While innovation is a powerful means of competitive differentiation, enabling firms to penetrate new markets and achieve higher margins, it is also a competitive race that must be run with speed, skill, and precision. It is not enough for a firm to be innovative—to be successful it must innovate better than its competitors. The Technological Innovation Management course serves to underscore the importance of technological innovation as a tool for organisations to climb their way to success and continue to retain their competitive edge in the market.

2. **Educational Objectives**

The course aims to

- a. Provide an overview of all fundamental concepts of strategic and technology management
- b. Highlight the importance and impact of technological innovation on society in general and the organization in particular
- c. Provide understanding of the role of strategic and technological innovation management in entering new markets and achieving higher profit margins
- d. Develop critical thinking among students

3. **Course Outcomes**

Upon successful completion of the course, the students will be able to

- a. Describe all important types and stages involved in the innovation cycle
- b. Utilize fundamental principles of technological innovation management to access new markets and expand existing ones
- c. Formulate and implement technological innovation strategy for an agricultural business

4. **Course Contents**

- a. Strategy, Competitive Advantage, and Performance
  - (1) The Strategy Formulation/Formation Process
  - (2) Strategic Leadership
  - (3) Identification of Opportunities and Threats
  - (4) Importance and impact of technological innovation
- b. Evaluation of External Environment
- c. Innovation by Industry: The importance of strategy
- d. Sources of Innovation
  - (1) Translating Creativity into Innovation
- e. The Nature of Competitive Advantage
  - (1) Distinctive Competencies, Competitive Advantage, and Profitability
- f. Functional Level Strategy
  - (1) Efficiency, Quality, and Customer Responsiveness
- g. Strategies
  - (1) Business Level Strategy and the Industry Environment
  - (2) Strategy in the Global Environment
  - (3) Corporate-Level Strategy including Horizontal/Vertical
- h. Types and Patterns of Innovation
  - (1) Types of Innovation
  - (2) Technology S-curves
  - (3) Technology Cycles
- i. Entering new markets
  - (1) First-movers advantages and disadvantages
  - (2) Factors influencing optimal timing of entry
- j. Formulating Technological Innovation Strategy
  - (1) Defining the organization's strategic direction
  - (2) Choosing innovation projects
  - (3) Collaboration Strategies
  - (4) Protecting Innovation
    - Managing Intellectual Property
- k. Implementing Technological Innovation Strategy

- (1) Organizing for innovation
- (2) Managing new product development process
- (3) Crafting deployment strategy

5. **Recommended Books**

- a. Strategic Management by Neil Ritson, Neil Ritson and Ventus Publishing , 2011
- b. Strategic Management of Technological Innovation (4th Edition) by Melissa A. Schilling, 2013. McGraw Hill
- c. Innovation Management and New Product Development by Paul Trott. 1998