

Technological innovation and economic change

Course Code: UEC000018T

Course Title: Technological innovation and economic change

Semester : IV

Credits : 02

Rationale

To understand the concept of technological innovation and theories of technological innovation, examine the link between entrepreneurship and innovation and how innovation affects the economic change

Course Outline

Contents	No. of Lectures
Unit-I Introduction to Technological Innovation and Economic Change Definitions and concepts, Historical perspectives on technological revolutions, The link between innovation and economic growth.	5
Unit-II Theories of Technological Innovation Schumpeterian theories of creative destruction, Diffusion of innovations, Endogenous growth theories.	5
Unit-III Entrepreneurship and Innovation Role of entrepreneurs in fostering innovation, Start-ups, incubators, and accelerators, Innovation ecosystems and clusters.	5
Unit-IV Economic Impact of Emerging Technologies Artificial intelligence and machine learning, Biotechnology and healthcare, The Internet of Things (IoT) and smart technologies.	5

<p style="text-align: center;">Unit V- Policy Responses to Technological Innovation</p> <p>Government incentives and support for innovation, Intellectual property rights, Regulation and antitrust policies.</p>	5
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Course Outcomes

Upon successful completion of this course, candidates will be able to

- To understand the concept of technological innovation.
- To Explore the theories of technological innovation.
- To develop the link between innovation and economic growth.
- To establish the economic impact of emerging technologies.
- To explore the government role in innovation.

Reference Books

1. Benn steil, David G. Victor and Richard R. Nelson (2002). Technology innovation and economic performance. Princeton press.
2. Kasturi mandal, Nadia Asheulova, Svetlana G. Kirdina (2014). Socio Economic and Technological Innovations. Narosa Publishing House.
3. Jan Fagerberg and David C. Mowery (2015). Innovation, Technology and Economic Change. Edward Elgar publisher.
4. David C. Mowery and Nathan Rosenberg (1991). Technology and the pursuit of Economic Growth. Cambridge University press.