

8th SEMESTER
BACHELORS WITH ECONOMICS AS MAJOR
ECONOMICS OF GROWTH (CT-01)

ECOC1822M

CREDITS: 4 + 2 = 6

Course Description: This is a core course of 6 credits (4 units of 01 credit each and tutorial of 2 credits).

Course Objectives: This course aims to provide a concise yet comprehensive understanding of economic growth concepts, measurement techniques, and factors influencing growth. Students will explore economic growth models, including the Harrod-Domar, Robinson's, and Meade's models, addressing issues of instability and capital accumulation. The Solow model will be examined, emphasizing the impact of population, saving, and technology on economic growth, and covering topics such as the steady state and the golden rule of consumption. Overall, the course equips students with essential theoretical knowledge and analytical skills to grasp and evaluate economic growth dynamics.

Learning Outcomes: After completing this course, students are expected to:

L01: Grasp economic growth concepts, measurement methods, and factors shaping growth.

L02: Analyze instability in growth models like Harrod-Domar, Robinson's Golden Rule, and Meade's models.

L03: Understand Solow's model, assessing impacts of population, savings, technology, and long-term growth theories.

Unit I: Concept and Measurement (1 Credit)

Economic growth: concept and measurement, factors affecting economic growth. Production-function approach to causes of growth; growth accounting; technological progress: meaning, nature and classification.

Unit II: Economic Growth I (1 Credit)

Harrod—Domar model: basic structure, problem of instability; Robinson's model-golden rule of capital accumulation; Meade's model.

Unit III: Economic Growth II (1 Credit)

Solow model: basic structure, impact of population, saving and technology; Kaldor Model, steady state and the golden rule of consumption; convergence hypotheses.

Unit IV: Economic Growth III (1 Credit)

Endogenous Growth Models, Macro Determinants of Growth, Mahalanobis Model, Models of Regional Growth rate differences- Prebisch, Seers and Myrdal Model.

Tutorials (1 Credit)

- Population & economic growth in India
- Exercises related to finding the steady state
- Harrod & Domar model & India's first five-year plan.

Basic Readings:

1. Thirlwall, A. P. (2014), Growth and development, Palgrave MacMillan, U.K.
2. Jones, C.I, Introduction to Economic Growth, W. W Norton & Co. 2002
3. Todaro, M. P., & Smith, S. C. (2012). Economic development 11th edition.
4. Jhingan, M. (2012) Economics of Development and Planning. Vrinda Publications, Delhi.

Additional Readings:

1. Barro, Robert J. and Sala-i-Martin, Xavier. Economic Growth, Prentice Hall of India Private Limited, 2nd edition, 2007.
2. Jones, H.G, An Introduction to the Modern Theory of Economic Growth, Thomas Nelson, and Sons.
3. Acemoglu, Daron. (2009). *Introduction to Modern Economic Growth*. Princeton University Press: USA.

**Further Readings shall be as per the suggestions of the concerned teacher.*

- Understanding the economic implications of positive, negative, and zero partial derivatives; solving practice problems to compute partial derivatives.

Unit VI: Tutorial-II

- Evaluate constrained and un-constrained optimization problems in economics
- Using integration to calculate consumer's and producer's surplus
- Evaluate production functions and utility functions.

Basic Readings

Main References

1. A.C. Chiang and Kevin Wainwright (2017). *Fundamental Methods of Mathematical Economics*. McGraw Hill Education; Fourth Edition (1 July 2017)
2. K. Sydsaeter and P. J. Hammond (2016). *Mathematics for Economic Analysis*. Pearson Education India.
3. G. Renshaw (2021). *Maths for Economics*. Oxford Publication (2021).

Additional References

1. E T. Dowling (2011). *Schaum's Outline: Introduction to Mathematical Economics*. McGraw Hill; 3rd Edition (16 November 2011).
2. G.S. Monga (2001). *Mathematics and Statistics for Economists*. S Chand; 2nd Edition (12 April 2001).
3. M. Roser (2003). *Basic Mathematics for Economists*. Routledge; 2nd Edition (13 March 2003).
4. O. Levin (2015). *Discrete Mathematics: An open Introduction*. Create Space Independent Publishing Platform, 1st Edition (2015).
5. T. Bradley (2013). *Essential Mathematics for Economics and Business*. Essential Mathematics for Economics and Business.