Course Title: Growth Economics			
Course Code: UEO 305	**No. of credits:** 4	**L-T-P:** 60-0-0	**Learning Hours:** 60
Pre-requisite course code and title (if any): Intermediate Macroeconomics-I or Intermediate Macroeconomics-II			
Department: Department of Policy and Management Studies			
Course Coordinator: Dr. Shantanu De Roy		**Course Instructor:** Guest Faculty	
Contact Details: shantanu.roy@terisas.ac.in			
Course Type: Major		**Course offered in:** Semester 5	

Course Description: This course focuses on the diverse thoughts of the economics of growth. In Module 1 of this course, there are discussions on the importance of economic growth, the determinants of the divergent growth experiences across economies, and their historical origins. This is followed by discussions on the growth models of Harrod and Domar that connects the growth rate of the economy on an exogenously given saving rate and the capital-output ratio. In Module 3, important contributions of Solow and Swan in growth economics is discussed. The role of technology in economic growth is the focus of discussions in Modules 4 and 5. The baseline AK model is discussed in Module 4; quality improvements with technological progress with a given variety and market-size effects of technological progress will be discussed in Module 5. The consequences of economic growth when there is depletion of arable land and non-renewable resources and the relationship between economic growth and environmental quality will be the core discussion points in Module 6. Module 7 focuses on the role of demand in the growth processes of the economies. In Module 7, the discussion shifts from the supply side to the demand side of the economy as a crucial determinant of growth. Finally in Module 8, the Indian growth experiences is discussed. Discussions in this module are primarily centered on the growth processes of the Indian economy after the initiation of the structural adjustment programme in the 1990s from contrasting perspectives.

Course Objectives:

- To acquaint the students with the diverse thoughts of growth economics.
- To understand the historical origins of the divergence in the growth rates of economies and to identify the determinants of the divergence.
- To understand the role of technological progress in economic growth.
- To understand the relationship between economic growth and sustainability.
- To understand the Indian growth experiences at various phases since its independence from identify the determinants of the Indian growth processes from divergent perspectives.

Course Contents:

Module	Topic	L	T	P
1.	**Introduction to Economic Growth** • Why study economic growth? • The facts of economic growth	4		
2.	**Harrod-Domar Model of Economic Growth** • Warranted, natural and actual rates of growth and the knife-edge problem • Dual roles of investment and the razor's edge	6		
3.	**The Solow-Swan Model: Growth Economics with Exogenous Saving Rates** • Basic structure	8		

	• Steady state and the Golden Rule of capital accumulation • Transitional dynamics in the Solow-Swan model			
4.	**Endogenous Growth Model** • The AK model • Transitional dynamics in the basic endogenous growth model	6		
5.	**Technological Progress and Growth** • Growth through creative destruction • Market-size and technical change	10		
6.	**Environment, Natural Resources and Growth** • Growth and sustainability	6		
7.	**Role of Aggregate Demand in Economic Growth** • Fundamental critique of the neoclassical distribution and growth theory • Reconciling the growth of aggregate demand and aggregate supply	10		
8.	**Analyzing India's Growth Experiences** • Trends and patterns of economic growth in India • Sources of economic growth in India • Determinants and contradictions of economic growth in India	10		
	Total	**60**		

Evaluation Criteria:

1. Minor 1: Written test [after the completion of Modules 1, 2 and 3] – 25% [learning outcome 1]
2. Minor 2: Written test [after the completion of Modules 4, 5 and 6] – 35% [learning outcomes 2 and 3]
3. Major exam: Written test [after the completion of the course; based on Modules 5 and 6] – 40 % [learning outcomes 1 and 4]

Learning Outcomes:

After the completion of the course, students will develop:

1. Comprehensive understanding of diverse theories of economic growth in terms of core features, determinants of the growth process and possible policy implications.
2. Understanding the role of technology in the growth processes.
3. Enables to understand the relationship between growth and sustainability.
4. Understanding of the growth processes of the Indian economy since its independence.

References

Textbooks

- Weil, D. N. (2013). *Economic Growth* (*3rd Edition*), Pearson Education.
- Jones, Charles I and Vollrath, Dietrich (2013). *Introduction to Economic Growth* (*3rd Edition*), W.W. Norton and Company.
- Aghion, P. and Howitt, P. (2009). *The Economics of Growth*, MIT Press.
- Acemoglu, D. (2009). *Introduction to Modern Economic Growth*, Princeton University Press.
- Barro, R. J. and Sala-i-Martin, X. (2004). *Economic Growth* (*2nd Edition*), MIT Press.

CORE reading materials (module-wise):

Module 1: Introduction to Economic Growth

Weil, D. N. (2013). Chapters 1 and 2 in *Economic Growth* (*3rd Edition*), Pearson Education.

Jones, Charles I and Vollrath, Dietrich (2013). Chapter 1 in *Introduction to Economic Growth* (*3rd Edition*), W.W. Norton and Company.

Acemoglu, D. (2009). Chapter 1 in *Introduction to Modern Economic Growth*, Princeton University Press.

Module 2: Harrod-Domar Model of Economic Growth

Ray, D. (1998). Chapter 3 in *Development Economics* (*27th Edition)*, Oxford University Press.

Chiang, A.C. (1984). Chapter 13 in *Fundamental Methods in Mathematical Economics*, McGraw-Hill Book Company.

Module 3: The Solow-Swan Model: Growth Economics with Exogenous Saving Rates

Barro, R. J. and Sala-i-Martin, X. (2004). Chapter 1 in *Economic Growth* (*2nd Edition*), MIT Press.

Ray, D. (1998). Chapter 3 in *Development Economics* (*27th Edition)*, Oxford University Press.

Module 4: Endogenous Growth Model

Jones, Charles I and Vollrath, Dietrich (2013). Chapter 9 in *Introduction to Economic Growth* (*3rd Edition*), W.W. Norton and Company.

[**Additional readings**: Barro, R. J. and Sala-i-Martin, X. (2004). Chapter 1 in *Economic Growth* (*2nd Edition*), MIT Press].

Module 5: Technological Progress and Growth

Jones, Charles I and Vollrath, Dietrich (2013). Chapter 5 in *Introduction to Economic Growth* (*3rd Edition*), W.W. Norton and Company.

Aghion, P. and Howitt, P. (2009). Chapter 8 in *The Economics of Growth*, MIT Press.

[**Additional reading**: Chapters 3, 4 and 9 in *The Economics of Growth*, MIT Press].

Module 6: Growth and Sustainability

Jones, Charles I and Vollrath, Dietrich (2013). Chapter 10 in *Introduction to Economic Growth* (*3rd Edition*), W.W. Norton and Company.

[**Additional reading**: Arrow, K. J., Dasgupta, P., Goulder, L. H., Mumford, K. J., & Oleson, K. (2012). Sustainability and the measurement of wealth. *Environment and Development Economics*, *17*(3), 317-353.]

Module 7: Role of Aggregate Demand in Economic Growth

Dutt. A. K. (2010). 'Reconciling the growth of aggregate demand and aggregate supply (Chapter 11)', in Setterfield, M. (ed.), *Handbook of Alternative Theories of Economic Growth*, Edward Elgar Publishing Limited.

Hein, E. (2014). Chapter 3 in *Distribution and Growth after Keynes: A Post-Keynesian Guide*. Edward Elgar Publishing Limited.

[**Additional reading:** Foley, D. and Michl, T. R. (2010). 'The classical theory of growth and distribution (Chapter 2)', in Setterfield, M. (ed.), *Handbook of Alternative Theories of Economic Growth*, Edward Elgar Publishing Limited.]

Module 8: Analysing India's Growth Experiences

Subramanian, A., & Felman, J. (2019). 'India's great slowdown: what happened? What's the way out?'. Faculty Working Paper No. 370, Centre for International Development, Harvard University.

Azad, R. and Bose, P. (2021). 'India's growth story: a model of 'riskless capitalism'? (Chapter 15)', In Basu, D. and Das, D. (eds.), *Conflict, Demand and Economic Development: Essays in Honour of Amit Bhaduri*. Routledge.

[**Additional readings:**

- Robertson, Peter E. (2010). "Investment led growth in India: fact or mythology", *Economic and Political Weekly*, 45(40): 120-124.

- Kotwal, A., Ramaswami, B., & Wadhwa, W. (2011). "Economic liberalization and Indian economic growth: What's the evidence?" *Journal of Economic Literature*, 49(4), 1152-1199]. - Basu, D. and Das, D. (2021). *Conflict, Demand and Economic Development: Essays in Honour of Amit Bhaduri*. Routledge. - DeLong, J. B. (2003)."India since Independence: An analytic growth narrative." In *In Search of Prosperity: Analytic Narratives on Economic Growth*, edited by D. Rodrik: 184-204. Princeton NJ: Princeton University Press. - Bosworth, Barry & Collins, Susan M. & Virmani, Arvind, 2007. "Sources of Growth in the Indian Economy," India Policy Forum, National Council of Applied Economic Research, vol. 3(1), pages 1-69]
Pedagogical Approach: Classroom lectures
Additional information (if any): **Course prepared by:** Dr. Shantanu De Roy
Student responsibilities: Attendance, feedback, discipline: as per university rules.

Course reviewers:

1. Dr. Jyotirmoy Bhattacharya, Associate Professor, School of Liberal Studies, Ambedkar University Delhi.
2. Dr. Seema Sangita, Associate Professor, Centre for Economic Studies and Planning, Jawaharlal Nehru University.