FAS2882K: Economic Analysis of Technology and Innovation Policy FASStrack 2026

Schedule: PM Session (2pm-5pm, Singapore Time)
Tuesday, Wednesday, Thursday, and Friday

Course Description

This course discusses the relationship between technological changes, innovation activities and economic development. In the long run, the establishment of innovative systems can promote technological progress and economic development. Empirical facts from international experience show that public policies can accelerate scientific and technological change by changing incentives. This course will focus on how institutions of innovation and public policies affect technological progress and economic development. At the same time, new technologies and new services are emerging in the digital economy, biomedical industry and green economy. This also brings up many topics related to innovation and technology policy. The second half of this course will discuss the latest developments in public policy debates in the digital economy, biomedical and green innovation.

Learning Objectives:

- Understand the development of innovation systems and related public policy topics.
- Understand the analytical framework related to innovation and technology policies.
- Students will be able to apply relevant concepts and analytical frameworks to cutting-edge policy issues such as the digital economy, biomedical and green innovation.
- Students will be asked to analyze current public policy topics in the form of group presentations.

Lecturer

Dr Qian Jiwei, Senior Research Fellow, East Asian Institute, NUS.

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Course Assessment

| Assessments | | Assessment deadlines |
|---------------------|------|----------------------|
| Essay | 40% | |
| Group presentation | 35% | |
| Class participation | 25% | |
| Total for CA: | 100% | |

- Essay (40%): Paper length within 3,000 words
- Group Presentation (35%): Describe your assessment....
 - o 10% Written report (common grade), around 750 words

- o 15% Group Presentation
- 10% Summary of each group member's contribution to the group project (individual grade)
- Assessment Title 3 (25%): Class participation

Course Topics

| Week | Day | Topic | Session Activities |
|------|-----|--|--------------------|
| 1 | 1 | Innovation Policy and Economic Growth | Lecture |
| | 2 | Economic Policies to Promote Innovation | Lecture |
| | 3 | Institutions Supporting Innovation | Lecture |
| | 4 | Intellectual Property Rights and related polices | Lecture |
| 2 | 5 | Innovation Networks and the Geography of Innovation | Lecture + Tutorial |
| | 6 | Policies to Promote Scientific Research | Lecture + Tutorial |
| | 7 | Digital Economy and Economic Development | Lecture + Tutorial |
| | 8 | Competition Policy, Industrial Policy, and Technological Innovation in the Digital Economy | Lecture + Tutorial |
| 3 | 9 | Public Policies on Privacy and Cybersecurity | Lecture + Tutorial |
| | 10 | Biomedical Innovation and Public Policy | Lecture + Tutorial |
| | 11 | Green Innovation and Public Policy | Lecture + Tutorial |
| | 12 | Economics of Science and Technology Policy | Lecture + Tutorial |

Textbook:

Aghion, P., Antonin, C., and Bunel, S. (2021). *The Power of Creative Destruction*. Harvard University Press.