

### MOT セミナーのお知らせ

技術経営専門職学位課程／イノベーション科学系イノベーション科学コースでは、下記の通り香港科学技術大学の鎗目雅准教授の 4 回シリーズレクチャーによる MOT セミナー “Innovation and Sustainability” を開催します。

4 回シリーズレクチャーではありますが、各回単発での参加も歓迎します。貴重な経験になりますので是非ご参加ください。なお、レクチャーは英語で行いますが、質疑応答は日英いずれも可能です。

日時：

第 1 回 7 月 16 日 (火)

第 2 回 7 月 23 日 (火)

第 3 回 7 月 30 日 (火)

第 4 回 8 月 6 日 (火)

いずれも 18：30～20：00

場所：田町キャンパス キャンパスイノベーションセンター 3 階 310 講義室

#### **Brief Description:**

In moving towards global sustainability, we need to make a balanced approach to achieving environmental protection and economic and social development from a long-term perspective. While new technologies can contribute to producing economic growth and societal benefits, they could also pose potential risks to human health and the environment. It is critical to understand how innovation is created and implemented in our efforts for sustainability. We will then be able to discuss implications for public policy and institutional design in influencing the behavior of relevant stakeholders involved in innovation. This course examines the role of innovation in achieving sustainability. Among the issues to be discussed include models of technological change, systems approaches to innovation, intellectual property rights, research and development, and case studies in various sectors concerning sustainability. The mechanisms of co-evolution of technology and institutions in facilitating innovation for sustainability are examined from a global perspective. This course aims to provide students with basic concepts and methodologies for analyzing the mechanisms and processes of creating innovation and examining feasible options for public policy in facilitating sustainability. An integrated approach is explored in designing and implementing science, technology and innovation policy and environmental and sustainability policy. Students learn how to use various types of knowledge from an interdisciplinary perspective and to propose policy and institutional measures for addressing sustainability challenges.

#### **Schedule:**

Seminar 1 (July 16, 2019)

##### **Introduction to Innovation**

- Microeconomic Effects of Innovation
- Interaction between Producers and Users of Innovation
- Innovations and Market Failure
- Restoring Incentives to Invent and Innovate

- Firms Competing through Innovation
- Role of Intellectual Property
- Measurement of Innovation
- Illustrations of Innovation Statistics

#### Seminar 2 (July 23, 2019)

##### **Systems Approaches to Innovation**

- National Innovation Systems
- Government-University Axis
- University-Business Axis
- Government-Business Axis
- Firms, Markets, and Innovation
- Entrepreneurship and New Firms
- Intellectual Property Rights and Innovation
- Markets for IPRs
- IPR Strategies
- Diffusion of Innovation
- Spillovers and Social Returns to Innovation

#### Seminar 3 (July 30, 2019)

##### **Economic Analysis of Innovation for Energy and the Environment**

- Fundamentals of Environmental Economics
- Economics of Technological Change
- Induced Innovation, Impacts of Technological Change
- Diffusion within Countries, Diffusion across Countries
- Technological Change in Aggregate Energy-Environment Models: Exogenous and Endogenous Technological Changes

#### Seminar 4 (August 6, 2019)

##### **Strategies and Public Policies for Innovation for Sustainability**

- Case Studies of Innovation for Energy Security, Environmental Protection, Public Health, and Sustainable Development
- Implications for Public Policies on Energy, Environment, Health, Competition, Data, and Science, Technology, and Innovation

##### **Readings**

- Christine Greenhalgh and Mark Rogers, *Innovation, Intellectual Property, and Economic Growth*, Princeton, NJ: Princeton University Press (2010).
- Hall, Bronwyn H., and Nathan Rosenberg, eds., *Handbook of the Economics of Innovation, Volume 1 and Volume 2*, Amsterdam: Elsevier (2010).
- Dodgeson, Mark, and David Gann, *Innovation: A Very Short Introduction*, Oxford, UK: Oxford University Press (2010).
- Vonortas, Nicholas S., Phoebe C. Rouge, and Anwar Aridi, eds., *Innovation Policy: A Practical Introduction*, New York: Springer (2015).