First Semester (15 credits)
Introduction to Types of Capitalism, Erik S. Reinert
Technical Change, Techno-Economic Paradigms and Changing Opportunities for Development, Carlota Perez
History of Economic Policy and the Theory of Uneven Development, Erik S. Reinert
Case Studies in Technologies and Industries, Rainer Kattel
Financial Policies, Innovation and Economic Development, Jan Kregel
Public Management and Administration, Wolfgang Drechsler, Rainer Kattel, Tiina Randma-Liiv
International Organizations, Jan Kregel
The State and Governance, Wolfgang Drechsler, Rainer Kattel

Second Semester (15 credits)
Policy Skills: Strategic Management, Policy Analysis, and Lesson-Drawing, Rainer Kattel, Veiko Lember
Critique of Technology, Wolfgang Drechsler
The European Union, Wolfgang Drechsler, Rainer Kattel
Small States, Tiina Randma-Liiv
Development Policies and Globalization, Erik S. Reinert
Masters’ Seminar, Wolfgang Drechsler, Rainer Kattel, Jan Kregel, Carlota Perez, Erik S. Reinert, 4

Free courses (10 credits)

MA thesis (20 credits)
FIRST SEMESTER
Introduction to types of capitalism
Erik S. Reinert

This introductory section is based on four case studies developed at Harvard Business School on different types of capitalism: English, American, German and Japanese. The institutional characteristics both uniting and differentiating these different capitalist experiences are thoroughly discussed. What are the technological and geographical dynamics of capitalism? When does capitalism cause peripheral poverty and when does it produce sequential upgrading? Classical colonialism is contrasted with the Asian ‘flying geese’ model of sequential economic growth. What determines the rise and fall of capitalist systems? What options are open to nations and regions today as regards types of capitalism? This section requires particularly thorough reading of the assigned cases on the part of the students.

Texts:
Harvard Business School case studies

Credits: 1
Grade: pass/fail
History of Economic Policy and the Theory of Uneven Development
Erik S. Reinert

The course gives an overview of economic and development policies that have made rich countries rich, while at the same time introducing the elements of a theory of uneven economic development. The course discusses policies from the Renaissance, mercantilism and cameralism of continental Europe, and the successful policies of development and industrialization from the rise of the USA, Germany and Japan to the success of Ireland and Finland in the late 20th century. Special attention is given to policy failures: why certain economic policies failed in certain contexts? The policies are discussed against the backdrop of the development of economic theory.

Texts:
Friedrich List, Introduction to The National System of Political Economy.

Credits: 3
Grade: yes
While there is no linear determinism in economic development, large-scale patterns have been identified in economic, industrial and technological dynamics. As suggested by Schumpeter, these patterns are associated with the occurrence of successive technological revolutions. This course provides a set of tools for understanding and analyzing technical change, from the minor and frequent incremental innovations constantly incorporated into products and services, to the major surges of transformation that change the techno-economic paradigm for the whole economy. The course discusses the nature, genesis and different stages of diffusion of techno-economic paradigms, their impact on socio-economic institutions and on the changing windows of opportunity for development.

Texts:
Carlota Perez, Carlota, Technological change and opportunities for development as a moving target, CEPAL Review No. 75, 2001, December, pp. 109-130 (also available in Spanish and French).
Financial policies, innovation and economic development
Jan Kregel

Any economy can be seen as consisting of two different spheres, the financial/monetary economy and the ‘real economy’ of production and distribution of goods and services. This section covers the financial aspects of economic growth and development and the synchronization of the financial and the real economies: The role of a financial sector and a financial policy as necessary scaffolding supporting the real economy and financing innovations. Financial theory of growth and development is presented, as well as the role of financial institutions, central banks, and the Bretton Woods Institutions. Keynesian theory and the mechanisms causing financial fragility and financial crises, like the Asian Crisis, are explained.

Texts:

Credits: 3
Grade: yes
Case Studies in Technologies and Industries
Rainer Kattel (coordinator)

This course will focus on contemporary key technologies, mainly on ICT, biotechnology and nanotechnology, and on innovation in contemporary industries. The course gives, first, an overview of evolution, current problems, social and ethical implications, future prospects as well as economic potential of each key technology. Second, the course discusses innovation in contemporary industries. Innovation policies tend to over-focus on high-technology companies and R&D in the future technologies. Much of economic development, employment, innovation as well productivity gains are actually created and achieved by the so-called traditional or existing industries (textile, chemistry etc). These industries are, on the one hand, constantly being rejuvenated by new high technology achievements; on the other hand, development and innovation dynamics tend to be highly different from that of the high-technology sectors. The course is taught by practionores and scholars from respective technology areas and it includes quest lectures from leading Estonian traditional industry representatives. The course also includes visits to existing industrial companies in Estonia and Finland.

Texts:

Credits: 1
Grade: pass/fail
The State and Governance
Rainer Kattel
Wolfgang Drechsler

This course will first discuss the State, as a theoretical and historical phenomenon, from its origins in the Greek *polis* to its contemporary existence in a globalized world and its European form, as the basis and source of any policy as well as of authority, decision, and the manifestation of the common will and weal. Then, the concept of governance is investigated: its relation to *Staatswissenschaften*, its origins, its difference from corporate governance, the place of government within governance, and the specific case of “Good Governance”. Special attention is given to the role of the state, and to the concept of governance, in the formulation and implementation of Technology Governance.

Texts:
Aristotle. *Politika* and *Nicomachean Ethics*.
Trames 8 (2004) 4, special issue on “Governance and Good Governance”.

Credits: 2
Grade: yes
This is not an introductory class to PMA, but rather a problem-oriented course focusing on PMA, specifically in regard to administrative capacity and managerial competence, as the basis for Technology Governance. Points of concern, therefore, are the concept of administration; private vs. public management; classic concepts and recent advances in organization theory; the role of the public service, including career systems; the shift from classic PA via the New Public Management to the Neo-Weberian State; and comparative PM reform, especially as regards the EU, the United States, and the developing countries.

Texts:
International Organizations
Jan Kregel

The international market economy needs international organizations that deal with issues of development and stability. The role these institutions play in national and international development can be both positive and negative. Post World War II international institutional landscape, following the Bretton Woods agreements, created conditions for unprecedented growth throughout Europe. On the other hand, the so-called “Washington Consensus” institutions of 1990s played a very different and often negative role in international economic development. This course discusses the growing and necessary role of international organizations in international financial stability, in innovation and in economic development.

Texts:

Credits: 1
Grade: pass/fail
Policy Skills: Strategic Management, Policy Analysis, and Lesson-Drawing
Veiko Lember, Rainer Kattel

Contemporary governments and policy makers often face highly complex task of designing long-term strategic policies within the framework of annual budget-making process that is necessarily geared towards short-term political gains and goals. Innovation and technology development are almost by definition policy areas where the impact of policies lies in a more or less distant future. In order to design in such situation policies that perform well and actually attain desired goals, policy analysis, lesson-drawing and strategic management play key roles. This class is designed to address the “how”, rather than the “what”, of successful policy analysis and design, strategic management and lesson-drawing.

Texts:

Credits: 2
Grade: yes
Critique of Technology
Wolfgang Drechsler

A sophisticated understanding of technology, and technology governance, requires that one looks at, and understands, its “dark side” and its existence-changing, epochal power in the modern world as well. In this course, the aim is to introduce, pars pro toto, one of the main schools of technology critique (that of the “Conservative Revolution” of the German Weimar Republic associated with the names Freyer, Heidegger, the Jünger brothers, and Gehlen), as well as one of the main technophobic utopias (the Arts & Crafts movement associated with Ruskin and Morris), to investigate their philosophical arguments, to follow these lines of thought in their theoretical and practical implications to our days, and to discuss them on a culturological level as well.

Texts:
Arnold Gehlen, Man in the Age of Technology, New York, 1980 [1957].
Romano Guardini, Letters from Lake Como, Grand Rapids, 1994 [1927].
William Morris, Notes from Nowhere, Mineola, 2004 [1890].

Credits: 2
Grade: pass/fail
Case studies in Business, Government and the International Economy
Wolfgang Drechsler
Rainer Kattel
Jan Kregel
Carlota Perez
Erik S. Reinert

Technology Governance and public policies that support innovation are highly context-specific. Many successful policies become unsuccessful in a new context, many do not reach set goals etc. Thus, learning from specific real case studies of historically and/or currently successful policies, and from failures, constitutes a crucial skill for scholars, policy analysts as well for policy makers. This course is based on case method developed and practiced at Harvard Business School. The course features guest lectures by practitioners from private and public sectors.

Texts:
The course is based on case studies from Harvard Business School.

Credit: 2
Grade: yes
Small States
Tiina Randma-Liiv

The course discusses crucial issues in development and administration of small states. Small states face often highly different problems than larger states, both in terms of the nature of problems (size of the market) and in potential solutions (limited human capital). Globalization and regionalization add new complex challenges to small states. Innovation and industrial development often depend on long-term and large-scale investments and growing markets, both lacking by nature in small states. Thus, the specific innovation and industrial policy context of small states build a special focus of the course.

Texts:

Credit: 2
Grade: yes
After the enlargement in 2004, the European Union forms common economic area and market that is comparable in size to the USA. The EU is a result of historically unprecedented integration in political and economic units that has resulted in highly complex but also influential system of multi-level governance. The levels of economic and social welfare offered to European citizens are among the highest in the world. Yet, Europe is also facing highly difficult challenges in terms of demographic changes and economic impact of both enlargement and competition from rising Asian economies. This course discusses the nature of the European Union and its growing importance in the world economy, economic and political impact of integration processes, science, technology and innovation funding policies, and the Lisbon strategy, both its genesis and current stand.

Texts:

Credits: 2
Grade: grade
Development Policies and Globalization
Erik S. Reinert

Economic development results from a complex mix of policies. Globalization and global production networks, in particular growing importance of outsourcing, create numerous challenges for development policies. In globalizing economy a country may be locked into specialization in technological dead-ends, but also specialize in being cost-cutting process innovations and in both cases create vicious circles of poverty while innovating. It can even be argued that, particularly in small states in the global periphery, a number of factors lead towards ‘primitivization’ rather than ‘modernization’. This course discusses development policies past and current, and in particular the challenge of globalization in the context of development policies.

Texts:

Credits: 2
Grade: yes
Masters’ Seminar
Wolfgang Drecshler, Rainer Kattel, Jan Kregel, Carlota Perez, Erik S. Reinert

The purpose of this seminar is two-fold. First, the seminar operates as a classical graduate seminar where Masters students have to present their work on MA thesis. Second, the seminar also offers a venue for various guest lectures by leading international scholars from various sub-fields of technology governance. The Masters’ Seminar will include the following themes and guest lectures:

*Technology and World Economic History*, Patrick O’Brien, London School of Economics.
*Institutions and Development*, Ha-Joon Chang, University of Cambridge
*Innovation and Employment*, Mario Pianta, University of Urbino.
*Technology and Structure in Alfred Chandler*, Franco Amatori, Università Bocconi, Milan
*Poverty and Human Development*, Richard Jolly, Institute for Development Studies, University of Sussex.
*Technology and the Irish Development*, Lars Mjøset, University of Oslo.
*China and India in the Global Economy*, Dirk Messner, German Development Institute, Bonn

Credits: 3
Grade: pass/fail