교과목 개요

STP501 Science, Technology, and Globalization 3:0:3(8)

Scientific advances and technological innovations are one of the central pillars buttressing contemporary flows of goods, services, ideas, and information commonly known as globalization. At the same time, globalization has been instrumental in spreading scientific knowledge and forming extensive cross-national networks of scientists and engineers for a common endeavor. In this course, we will examine various issues arising from the interaction of S&T and globalization, with particular emphasis on how globalization has challenged the existing national paradigm of S&T development.

STP 502 State Bureaucracy and Regulations 3:0:3(8)

This course examines contributions of modern state to the formation and implementation of regulatory regimes and ideas. The first half of the course surveys theoretical and empirical studies concerning the trajectory of state formation and state bureaucracy, and the second half deals with the national examples of economic regulation since the early 20th century.

STP 503 History of Modern Science 3:0:3(8)

This course examines the development of science since 1800 from the perspectives of both intellectual and social history. The students will learn how to interpret the original sources and deal with recent historiographical issues.

STP 504 Research Organizations 3:0:3(8)

STP 505 Survey in Intellectual Property 3:0:3(8)

STP 506 Education and Policy 3:0:3(8)

A survey course on modern educational policy and its past and current trends. The course compares developments in the U.S., Europe, and selected countries in East Asia. Students will receive hands-on training in writing policy memos (and/or research reports) on environmental issues of their own choosing.

STP 508 Business History 3:0:3(8)

This course examines the rise and evolution of modern enterprise system since the birth of capitalism. The topics covered throughout the course include historical transformation of modern capitalism, entrepreneurial strategy, technological development, managerial reform, financial markets, and labour organization.

STP 509 Risk Assessment & Management 3:0:3(8)

STP 510 National Innovation System 3:0:3(8)

This course aims to understand the causes and consequences of technological innovations through the framework of national innovation system. A national innovation system refers to a network of institutions in public and private sectors involved in initiating and diffusing new technologies. In this course, we will examine and compare differences between nations in the modes and patterns of generating and adopting innovations and utilizing them for economic advantages.

STP 511 National Security & Global Strategy 3:0:3(8)

It is essential for a techno-science policy maker or an engineering/science specialist to understand national strategy including defense, intelligence, and foreign policy for R&D, defense industry, and international affairs. Furthermore the understanding of global strategy including East Asia dynamic relation is important for the search of national direction after entering the developed country. The objective of this course is to design a 'National Security Strategy' by each team.

STP 512 Science, Business and Politics 3:0:3(8)

This course examines the intersection of science, business, and politics in some of the most important events and changes in world history. The class will discuss select readings, and explore the broader historical context in which science and technology policy has evolved.

STP 513 Political Economy of Science & Technology 3:0:3(8)

This course provides an understanding of the dynamics of political and economic forces underlying the formation of and changes in distinct science and technology regimes. Primary focus is placed on institutional complementarities in which organizational forms and behavioral patterns of science and technology development evolve in an interlocking relationship with the distinct constellations of political and economic institutions surrounding it.

STP 514 Philosophy of Science Policy 3:0:3(8)

This course has been designed to integrate philosophy with graduate school teaching in science policy studies. The key course topics will be: What is the nature of expertise? What is evidence and how do we assess risk? How can applied ethics contribute to fundamental policy issues in biomedical research and environmental problems? Students will be introduced to some of the main currents of philosophical thought concerning these core themes.

STP 515 High-Tech Industry Policy 3:0:3

This course examines the policy issues around hi-tech industries in Korea. To create an innovation ecosystem between industry, university, research institute and government, this class explores strategic approaches in policy decision-making.

STP 516 Popularization of Science 3:0:3

This course provides a general overview of the popularization of science from historical, social and cultural perspectives. Students are required to write a research paper on Korean cases.

STP 550 Economic Analysis of Public Policy 3:0:3

This course is concerned with the understanding of basic principles in business economics. Business economics considers how individuals, firms, the government, and other organizations make choices. In addition, economic forces are a fundamental determinant of firms' profitability and growth, and economic thinking should be a fundamental influence in nearly every managerial decision. In this course, we will examine the principles of microeconomics, and illustrate how they apply to managerial decision-making. By the end of semester, students should understand the main logical arguments in business economics and be able to use these tools to analyze business and public policy problems.

STP 552 National R&D Research & Development Management 3:0:3

This course is designed to (1) introduce and explore the fundamental concepts and approaches of national R&D policy and management and to (2) provide the opportunity for students to develop their critical views and cross-disciplinary thinking on analyzing and discussing the various issues of R&D investment, management, and evaluation.

STP 601 Survey in Science and Technology Policy 3:0:3(8)

This course aims to survey major issues in science and technology policy, including (1) the development of policy-making institutions, (2) the scientific experts in the policy arena, (3) risk and regulation, (4) international competitions, and (5) the relationship between consumers and producers of science and technology. Weekly readings will deal with both theoretical approaches and real-world case studies. Students will learn how to write review articles on specific themes.

STP 602 Quantitative Analysis in Public Policy 3:0:3(8)

This course introduces quantitative research methods for studying public policies. Withe a brief overview of the methodological debates on quantitative and qualitative approaches, the course proceeds to empirical research design and analysis based on statistical and mathematical methods. In this course, students will learn how to operationalize a theoretical hypothesis and test it on empirical data on institutions and behavior relevant to policy processes.

STP 604 Environmentalism and Environmental Policy 3:0:3(8)

A graduate course on environmentalism and environmental policy. The course covers both the deep historical background and the major trends and issues in contemporary environmentalism and environmental policy. Students will receive hands-on training in writing policy memos (and/or research reports) on environmental issues of their own choosing.

STP 605 Biotechnology and Law 3:0:3(8)

In this course, we will follow the life of a fictitious biotech product (e.g., a pharmacogenetic diagnostic test) from product development until its clinical use becomes an established standard of care. Along the way, we will focus on legal and regulatory affairs with which the maker or health careindustry or broader society should pass muster, such as getting adequate intellectual property protection over the product, making a technology/material transfer or licensing agreement with universities or other companies, getting FDA approval/clearance and CLIA accreditation, constructing interoperative health information infrastructure, providing education and training, and finally, addressing relevant ethical, legal and social issues.

STP 606 Communication Technology Policy 3:0:3(8)

The course examines the role of communication technologies in society and culture, with a particular emphasis on government policies. This includes both social and cultural contexts that have shaped the development of various new media, information, and communication technologies in relation to policies, as well as the social impacts of those technologies. Due to the technologies' spaceless nature, we explore the questions of governmental authority beyond territorial borders.

STP 607 Science & Empire 3:0:3(8)

This course aims to analyze how Western Power and Japan in the 19th and 20th centuries employed science and technology for their management of empires and how the occupied countries accepted/used them. Students will study cases of Japan, China, Korea, Indonesia, Vietnam, India and some South American countries.

STP 608 Institution and Policy 3:0:3(8)

This course explores the development of science and technology policy at the institutional level, by examining government agencies, corporate research labs, university departments, and philanthropic foundations. Students will learn to analyze the ways in which multiple institutes interact, compete, and network with one another in specific social and political contexts.

STP 609 Contentious Politics of East Asia 3:0:3(8)

This course seeks to examine various theoretical and methodological approaches to the study of contentious politics and to explore their applications to East Asian countries, including Japan, South Korea, and China. We will analyze diverse forms of contentious politics, ranging from students, peasants, workers, to feminist and environmental movements.

STP 610 Research Seminar on Universities and Higher Education Systems 3:0:3(8)

This is a graduate research seminar on issues relating to the development of universities and higher education systems, in select developed countries and in Korea. The course includes a survey of the

literature on the history of higher education and high education research and an introduction to basic research methodology. Students will be required to submit an original research paper at the end of the semester.

STP 611 Survey in Science and Technology Studies 3:0:3(8)
This seminar course introduces major themes and important works in the social studies of technology. Topics include transportation and communication technology, military research, biomedical technology and biometrics, automation and robotics, and virtual reality.

STP 612 Mobility, Power, and Policy 3:0:3(8)
This seminar course will address the significance of mobility in personal and social lives in the age of advanced computing, communication, and transportation technologies. Readings from multiple disciplines in humanities and social sciences will be discussed.

STP 613 Biomedical and Health Policy 3:0:3(8)
This graduate seminar course aims to explore new issues in biomedical and health policy by examining the activities of government, universities, industrial corporations, philanthropic foundations, and international organizations in different social and political contexts.

STP 614 Life, Science and Culture 3:0:3(8)
This seminar course interrogates "life" beyond its naturalized, self-evident, and "scientific" understanding: as an interaction between science and culture, a social phenomenon, a potentiality that both enables and exceeds its economic and political condition. The topics we will cover include: the concept of life in science and social theory, biopolitics, life and value, gendered life and biotechnology and the biotechnology in Asia.

STP 615 The Ethics and Governance of Emerging Technologies 3:0:3(8)
In this course, we will investigate innovative developments in science and technology with profound ethical, social and policy-making implications. We will study a number of topics, drawing on cases in the life sciences, medicine, and nanotechnology. How should we confront the ethical and policy implication of emerging science and technology when their long-term impacts cannot be easily predicted? The knowledge we have recently developed of the human genome promises extraordinary advances in medical diagnosis and therapeutics. But it also raises profound ethical and policy problems. Do the potential therapeutic benefits of human embryonic stem cell research outweigh ethical concerns about the embryo? What are the ethical implications of materials with novel properties at the nanometer scale? How are policy-makers to assess and respond to the potential environmental, health and political risks of nanotechnology? The ethical dimension of policy-making itself requires investigation. What impact does ethics have on public policy? Is the potential for public participation in policy-making supplanted by another form of expertise? How should policy-makers respond to the ethical problems of emergent science and technologies? And to what extent does ethics advice and policy in Europe and the United States differ from Asia?

STP 616 NGO Studies 3:0:3(8)
This course introduces theoretical and empirical perspectives on non-governmental organizations (NGOs). Topics to be covered include civil society, governance, citizen science, and technology and human values. Students will gain a deeper understanding of the recent "NGO phenomenon" and develop the ability to undertake independent research on the role of NGOs in public policy making.

STP 617 Science of Science Policy 3:0:3(8)
This course examines an emerging approach to science, technology, and innovation (STI) policy called the Science of Science Policy (SoSP). Driven by the "evidence-based policy" framework, SSP aims to provide scientifically rigorous and quantitative basis for science policy. The course will introduce the

origin and evolution of SoSP, its impacts on the design, management, and evaluation of diverse STI policies, and specific tools of analysis utilized for SoSP.

STP 618 Technology Foresight and Imagination 3:0:3(8)
This course examines the ways in which new developments in science and technology are bound up with expectations of certain futures and discusses social, cultural, philosophical, and ethical responses to these changes.

STP 619 Environmental Politics 3:0:3(8)
This course introduces interdisciplinary approaches to the relationship among environment, economy, and technology. It will focus on some of the key concepts that have framed public debates on environmental issues—concepts such as nature, resource, risk, sustainability, and development. Students will 1) gain a deeper understanding of how these concepts have been culturally shaped in particular historical, geographical contexts and 2) develop the ability to think critically about public and academic debates related to environmental governance.

STP 620 Anthropology of Science and Technology 3:0:3(8)
This course focuses on the relationship between techno-science and social life. Students will be introduced to ethnographic studies of expert knowledge and socio-technical changes. Key topics include expert culture, social trajectories of technology, politics of life, disaster, and cyber-sociality.

STP 621 Science and Nationalism 3:0:3(8)
This seminar course examines the use of science and technology in the nation-building enterprise, on the one hand, and the employment of nationalism as a driving force for the development of science and technology, on the other. Students will carry out original research with this conceptual tool.

STP 622 Technology for Social Justice 3:0:3(8)
The goal of this course is to introduce students to the foundation concepts and theories of social justice, which broadly refers to reducing unfair inequalities faced by members of a society due to racism, sexism, ableism, and ageism. A special emphasis is placed on the role of technology in promoting social justice, both nationally and internationally. Students will be challenged to integrate and apply the course material to the development of technology policies and programs for promoting social justice.

STP 623 Technology and Urban Policy 3:0:3(8)
This course focuses on the relationship among technology, urban space, and public policy. We will learn how urban infrastructure, such as waster service lines and power grids, facilitate the functioning of cities and shape citizens' way of life. We will also examine how public choices influence the development and use of urban sociotechnical networks. Key topics include urbanism, land use and transportation policy, communication systems, and network inequaliies.

STP 624 Science, Law and Regulation 3:0:3(8)
In this course we survey the converging interests of STS scholars in law and regulation and Law & Society scholars in the role of expertise and technoscientific evidence. Law and science both grapple with balancing empirical evidence (inductive reasoning) and theoretical principles (deductive reasoning), as well as procedural "fairness" ("due process" and positivism) versus real-world relevance (pragmatism and realism). We will consider different models of how science and law work, and the ways scholars write about epistemological convergences and divergences between the two.

STP 650 Theories of Policy Sciences 3:0:3(8)
This course is designed for students interested in understanding policy issues and improving the problem-solving competency. Students will gain a better knowledge of how to analyze public policy.

The course is aimed primarily at upper level of graduate students and assumes the student has taken no prior courses in public policy.

STP 701 Science and the City: Making a Culture of Innovation 3:0:3(8)

This course explores the city culture that fosters the progress in science and technology, examining a variety of cases in science cities, technocities, eco-cities, and metropolitan cities. Students will write original research papers by digging out historical materials from archives, conducting interviews, or analyzing survey results.

STP 960 논문연구(석사)

STP 965 개별연구(석사) 0:6:1

This course is a program for individual study by a student with a chosen professor. Its purpose is to help students build the ability to raise questions independently and interpret them, and to perform creative research by examining data or through field study in the humanities or social science.

STP 966 Departmental Seminar 1:0:1

This departmental seminar course invites scholars, government officials, politicians, and citizen activist to discuss cutting-edge theories and newly-emerging problems in science and technology policy.

STP 980 논문연구(박사)

STP 981 Seminar for Paper Presentation and Publication 1:0:1

This course aims to help students prepare a presentation at the conference or a paper submission to the scholarly journal.

STP 986 세미나(박사) 1:0:1

STP 998 Internship in Science and Technology Policy 0:18:3