

## 교과목 개요

### STP501 Science, Technology, and Globalization

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

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

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 506 Education and Policy

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 507 Dynamics of Cognition in Policy Judgment

Deliberation process is engaged whenever we are confronted with serious decisions. However, many static-deterministic theories fail to mention anything about this process. They are seriously incomplete to explain the psychologically important dynamical phenomena of human conflict - the evolution of preferences over time during conflict resolution. This course provides a general overview of an alternative framework for understanding decision and policy making, a dynamical, stochastic description of the deliberation process involved in decision and policy making.

### STP 508 Business History

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 510 National Innovation System

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.

### STP511 National Security & Global Strategy

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 601 Survey in Science and Technology Policy

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 Public Policy Making

This course introduces tools and methods analyzing the institutions and processes of public policy making. Drawing on case studies and quantitative analyses, the course aims to provide an in-depth understanding of various aspects of public policy making such as agenda setting, policy agents, incentive structures, cost-benefit analysis, etc. The course also emphasizes a synthetic approach asking students to design a policy in a specific area of public concern and to develop and evaluate a pilot test for their policy design. As such, the course will help the students to gain knowledge and skills with which to participate actively in the public decisionmaking processes in various institutional settings that they will face in the future.

#### STP 603 Cognitive Factors in Decision-Making Process

This course presents how cognitive factors in judgment and decision making can offer practical suggestions on how to deal with many common problems in daily life. Tentative answers will be provided to the questions of how people do make decisions, how they shift through the information without drowning in a sea of alternatives, and what the factors are that lead them in a certain direction.

#### STP 604 Environmentalism and Environmental Policy

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

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 care industry 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

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

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 966 Departmental Seminar

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.