Course Description

STP 110 The Engineer's Life 3:0:3

This course examines the history and social meaning of engineering as a profession and discusses psychological, social, cultural, economic, and political factors that constitute an engineer's life. These discussions are meant to be a resource for designing the student's personal and social life as an engineer.

STP 210 Power vs. Choice 3:0:3

This course provides basic conceptual tools for understanding various ways in which people and societies are organized and governed. We will learn about two competing logic of collective governance -power vs. choice perspectives- which pervade through well-known institutions, rules, process, policies, and collective behavior such as democracy, political parties & interest groups, national & local governments, international organizations, war & terrorism, mass mobilization, etc.

STP 211 Governing Emerging Technologies 3:0:3

This course helps students understand how novel technologies at the front end of technological advances are generated and managed socially. Emerging technologies are inherently Janus-faced with its potentials for higher-than-normal returns yet higher risk. This duality raises a policy challenge for national decisionmakers, as society would benefit greatly from policies and measures maximizing returns yet minimizing risk. In this course, we will examine how such challenges are handled across different societal systems.

STP 212 Science, Technology, and Communication 3:0:3

This course begins by examining a variety of predictions and depictions of the future with advanced information and communication technology. These accounts of the future are then interrogated to explicate what is presumed about the role of technology in constituting societies, social arrangements, social relationships, and ways of life. A major theme of the course is to understand how technology shapes and is shaped by society. Equipped with a view of information and communication technology as a sociotechnical endeavor, several of the major challenges of the 21st Century are examined, including globalization, privacy, surveillance, risk-management and virtuality.

STP 213 Silicon Valley in Perspective 3:0:3

This course examines Silicon Valley as a local place and a site of global discussion of economic development. We will explore how the Valley has emerged in the public scene and what social issues have been raised in relation to its development. Key topics include entrepreneurship, university-industry relations, and environmental challenges that have faced technology industries.

STP 214 Environment and Society 3:0:3

This course introduces interdisciplinary approaches to the social aspects of environmental issues. We will examine key concepts that have framed environment debates, such as risk society, green technology, and sustainability. Students will develop the ability to think critically about environmental policies and gain a deeper understanding of the relationship between humans and their nonhuman surroundings.

STP 215 Utopia and Dystopia 3:0:3

This course explores positive and negative visions of the future − utopias and dystopias. We will consider how developments in science and technology promise profound changes to society, the environment, to our health, what we value as communities and as individuals, and to our fundamental ideas of the human self. Thinking about the promise and perils of future technological developments and the kind of world that might result raises many important questions. How might we think about the future? Can we rally predict the impacts of science and technology? In what ways do we construct utopias and dystopias? What is the role of art, literature and science in developing our perceptions of the future benefits and risks of technological development? How might science and technology affect our aspirations for free, just and peaceful societies? And what are our visions of our future selves? What will it mean to be human as our knowledge of genetics and our abilities to manipulate the world and ourselves at the nanoscale develops? We will consider these issues philosophically, but they are not only philosophical issues. They are of direct relevance to, indeed are already being considered by, scientists , the public, artists, and policy-makers, as they attempt to find ways to respond to, manage, and create visions of scientific and technological change.

STP 219 Knowledge and Power 3:0:3

Science and technology provides the means to predict, explain, and control the natural world, shaping it to our various intellectual, social, and economic ends. While science and technology can provide us with power over nature, the development of science and technology increasingly demands various kinds of governance and oversight. Policy-makers must make decisions about how to allocate resources for research and development. Moreover, increasing significance is given to ethical and political oversight of science and technology, especially when developments in medicine, biotechnology, and energy technology raise concerns for public welfare. This course explores the dynamic relationship between scientific knowledge and power exercised over that knowledge in the form of ethical, social, and political values and constraints.

STP 230 Science and Technology Policy 3:0:3

This course is designed for those who do not have much experience in reading policy books and analyzing historical cases. The weekly worksheets will guide students to manage the reading assignments, and the historic photos and documentary films will be used in class to help them follow my lectures. The student participation is essential to class activities, including presentations of reading materials and research projects. The students should be prepared to answer or raise questions in class, as I will often mix lectures with discussions.

STP 243 Humans, Machines, and Society 3:0:3

This course surveys various perspectives on the relationship between humans and machines in historical, social, and cultural contexts. It examines the ways in which humans have designed, used, and co-existed with machines, and finally asks what it means to be human in technological society.

STP 311 Special Topics in Science and Technology Policy 3:0:3

This course provides an opportunity to learn about and engage in a variety of theoretical and practical debates in science & technology policy. Topics are selected from the historical and contemporary issues and problems of critical importance to the directions and implications of science and technology policy.

STP 312 Governing Global Risks 3:0:3

Are there any commonalities in such disparate events as the 9.11 attack, climate change, global financial crisis, and the Fukushima accident? Spanning the first decade of the new century, these events illustrate the scope and pattern of emerging risks around the world. This course first reviews scholarly effort to understand the nature and pattern of various risk. It thens examine recent tendencies in which risks are increasingly politicized, globalized, and scientized, exploring national, regional, and global schemes of risk governance.

STP 313 Science and the Public 3:0:3

This course examines concepts and issues in popularziation of science from historical and sociological perspectives. It explores science in the popular culture, the relationship between experts and lay people in science, pseudoscience controversies, and potential and limitation of STS as one kind of popularization of science.

STP 314 Quality of Life Technology & Social Policy 3:0:3

The goal of this course is to introduce students to the key concepts and perspectives in quality of life technology and relevant social policies. Students will learn how to identify the most vulnerable groups in the society from social work perspective and understand their needs. A special emphasis is placed on the aging process and older adults. Students will be challenged to integrate and apply the course material to the development of quality of life technology and relevant social policies.

STP 315 Food and Power 3:0:3

Food is a foundation of living. Providing food—growing it, processing and manufacturing it, distributing it, retailing it, buying it, cooking it, and eating it— structures not only our daily routines as individuals, but connects us to larger social institutions and the economies and politics of powerful vested interests. As foods move across different spaces, from farms, to processing plants, to supermarkets, into our homes and onto our tables, they not only bridge different social worlds, but also link the environment to personal health. Moreover, because food and eating form an intimate part of everyday life, they are closely linked to our identity and notions of the self. As the saying goes, you are what you eat.

STP 411 Research Methodologies in Science and Technology Policy 3:0:3

This course is intended to provide research experience for undergraduate students interested in science and technology policy issues. Students will learn how to choose a research topic worth exploring, design a research

process, collect appropriate data, and synthesize the findings of their inquiry.

STP 413 Risk Society and Disaster Studies 3:0:3

This course introduces diverse perspectives on disasters and explores the ways in which disasters are related to science and technology. We will use the disaster as a keyword with which to examine the ideas of risk, safety, uncertainty, inequality, and expertise. We will also discuss the possibilities and limitations of science and technology in responding to disasters.

STP 483 Case Studies in Science and Technology Policy 3:0:3

This course introduces basic methodologies in studying science, technology and innovation policy through case studies. It aims at enhancing the student's understanding and insight about policy orientation, policy process and substance. This course also outlines world science and technology policy trends in the 20th century and future prospects. It explores how Korea has adopted and implemented an appropriated policy at each development stage. Students learn about National Innovation System: theory and practices. Through this study, students get to know about why a certain state achieves better competitiveness than other countries and how government can foster innovation.

STP 484 Special Topics in Policy 1:0:1

This course is to look into case studies about social issues of political fields and political processes by inviting experienced experts in policies of science & technology, national defense diplomacy and economy. Through this, students can acquire a macroscopic view of national political situation and political mind.

STP 497 Internship in Science and Technology Policy I 0:6:1

STP 498 Internship in Science and Technology Policy II 0:12:2