

# Description of Courses

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## SJ501 Information Technology

This course explores the development of information communication technology and the core technique of policy-information communication technology. In addition, we will discuss about techniques and policies to guide the market by looking at the development direction and prospect of information communication technology.

## SJ502 Environment Technology

Environment policies and international cooperation environment technology development theory. The issues that entire human beings have to solve together in the 21st century are energy, environment, water and substantiality. We are going to have a close look at these important issues in the history of civilization and are going to discuss about the ways and policies to solve the problem.

## SJ503 Bio Technology

Understanding of new technology and development of bio-technology – We will learn essential elements of bio-technology that will lead the 21st century's industry. Moreover, we are going to discuss biotechnology's development direction, prospect and strategies to develop the industry.

## SJ504 Nano Technology

Theory and development process of nano-technology. We will learn basic skills in order to comprehend nano-technology. We are also going to find development direction and policy direction of nano-technology and industry by looking at various cases that applied nano-technology.

## SJ505 Convergence Technology

We will learn basic theories and technologies of convergence technologies among science, technology, and humanities and social sciences. Through the diverse cases of convergence technologies, we will pursue the ways in which we utilize convergence technology as a major driver in our national economy and technology.

## SJ601 Science Journalism Theory

We will introduce various theories acquired during science journalism research,

introduce each field of science journalism, while pursuing acquisition of new theories and knowledge.

#### SJ605 Science Journalism Research Methodology and Practicum

This class covers a variety of social science data analysis methods required for writing science journalism thesis papers. Social science research may go through three major stages: (1) research design, (2) data collection, and (3) data analysis and reporting; this class focuses on the last stage. The first portion of the class will cover the general research process, key elements of research and research ethics. Subsequently, the latter portion of the class will introduce major social science research methodologies such as experiments, surveys, content analysis, critical approach theory, and big data analysis in turn and each research methodology will be studied in-depth. For deep learning, quantitative data analysis practice (assignments) will be conducted using SPSS (R program is allowed) and papers using the corresponding research methodologies will be reviewed.

#### SJ721 Future Studies & Foresight

This course introduces a general concept of future studies and reviews various methods on foresight including Delphi, Scenario, Trend, Emerging issues, Three dimensional methods. The methods are compared with application examples, and pros and cons of each method will be discussed.

#### SJ603, 604 leadership & communication 1, 2

The basic principle of leadership and cases are introduced, and the communication training is provided with case studies. The students will be asked to present their experiences on the successful leadership and communication.

#### SJ506 Global Issue : Food, Life, Disease

In the 21st century, food, disease and life are issues that entire human being have to solve together. We are going to have a close look at these important issues in the history of civilization and are going to discuss about the ways and policies to solve the problem.

#### SJ507 Science and Technology Policy and Future Strategy

This course explores how the development of science and technology can influence and

be influenced by public policy, as well as, discusses the government's future strategies for science and technology.

Students will learn the changing inter-relationship between science and politics and analyze the role played by various key factors and participants—scientists, lay people, and institutions—in the present and future policy-making process.

#### SJ606 Complex Network Theory

This course studies complex network theory, which is widely used in social science research. Network theory is not only useful for understanding the structure of social networks and international trade networks, but also for understanding the spread of information and diseases through network links.

#### SJ607 Media Convergence

Media Convergence – the interconnection of information and communications technologies, computer networks, and media content – is transforming all aspects of media production, distribution, and consumption fundamentally. Especially for professionals in the media industry the Media Convergence is an existential challenge and, at the same time, offers new opportunities. This course aims to learn strategies and practices from experts and players in the field of converging media, startup companies and research institutes

#### SJ608 Digital Journalism

This course provides an overview of computer-mediated, digital journalism by exploring its psychological, interpersonal, social, and cultural aspects. The objectives of the course are to provide a significant understanding of how computer-mediation affects mass communication process and to enable students to extend this knowledge into contexts of their interest.

#### SJ701 Technology Marketing & Open Innovation

This course will introduce and discuss technology marketing and open innovation. The background of technology marketing will be introduced, and open innovation, new

technology innovation method, is to be discussed. Then M&A and IP market is to be discussed. Finally, personal project will be developed and evaluated.

#### SJ702 Modern Science, Technology and Civilization

This course aims to survey the history of science and technology in the 19th and 20th centuries, with special emphasis on the social and cultural backgrounds.

#### SJ703 Environmental Journalism & Policy

A historical introduction to the development of environmental policy seen from an international perspective. The course looks at long-term patterns and recent trends in the environmental movement and policy in developed countries, especially in the United States, and their confrontations with developing countries like China over environmental issues.

#### SJ704 Financial Engineering

We will learn the multidisciplinary field involving financial theory, the methods of financing, using tools of mathematics, computation and the practice of programming to achieve the desired end results. In this course, we will study the basic concepts in order to develop our understanding of financial engineering and discuss our contemporary issues related to financial management and consulting industries.

#### SJ705 Medical Journalism and Health Policy

This course will provide students with a broad overview of health policy and analysis method so students will be able to enhance ability to recognize, investigate, analyze and narrate health policies, issues and concerns, focusing on the untangling of complexities and controversies.

#### SJ706 Information Media Industry

We are going to put emphasis on understanding the industrial aspect of information media which became high-tech industry in the 21st century and finding out connection between information media industry and culture industry.

#### SJ707 Prediction & Planning of Future

In this course, we will introduce scientific methodologies for estimating the change of future society. Based on this, we will highlight solving methods for the problems that

mankinds are encountered based on science and technology. To meet this, we will invite specialists from various fields who can foresee the future in fusion ways, have lectures, and discuss about them. The purpose of this lecture is to search for the grand progress directions for the future of Korea.

#### SJ708 Culture Technology & Content

In this course, we are going to provide philosophical basis in order to apply social science to research of media and journalism and mainly introduce quantitative research methodologies that are used in scientific research such as questionnaire and content analysis.

#### SJ709 Social Media

Social media have rapidly changed the norms of both science journalism and our society. This course analyzes the nature of social media, including social networking sites and user-generated content models in order to provide new perspectives and knowledge on science journalism/communication to the students.

#### SJ710 Introduction to Intellectual Property

This course is designed to provide students with fundamental knowledge on intellectual property management topics through case simulations. It will cover strategic management issues of patents, trademarks, designs, trade secrets, and copyrights. It will also explore issues of IP transactions such as licensing, valuation, negotiation, and M&A's.

#### SJ711 Brand & Design Management

To learn how to enhance the customer satisfaction as well as the competitive edge by upgrading quality of products and services through strategic applications of design into management in order to cope with ever-changing needs of customers and trends.

#### SJ712 Social Cognitive Neuroscience

This class is designed to provide introduction of neural mechanisms underlying social cognition and behavior. Neural mechanisms underlying the empathy, social isolation, free-riding and cooperation, deception based on neuroimaging and behavioral investigations will be introduced. Particularly, the effect of media and journalisms for public perception and behaviors will be intensively discussed.

### SJ713 Future Strategy

In this course, we will estimate the change of future society in the 21st global era and highlight important science and technology for solving the emerging issues that the earth and mankind are encountered. Moreover, the role of science culture in the era of fusion will be introduced. We will invite strategists from various fields, have relay lectures, and discuss with the lecturers. The purpose of this lecture is to search for grand development strategies for the future of Korea throughout the class.

### SJ714 Risk communication

This course introduces the core concepts, theories, and recent findings in the field of risk communication with a particular focus on the formation of the mass public's risk perceptions. The course objectives include advancing students' understanding of (1) scientific uncertainty and the politicization of social risks, (2) the minimal effects of scientific knowledge and domain experts in risk communication, (3) the importance of emotion in social crises, and (4) the role of mortality salience in catastrophic social events.

### SJ722 Innovation Management Strategy

The focus of today's successful business management is on the creation of intellectual capital and value appropriation through prosecution and commercialization. This course is designed to provide fundamental knowledge required for the chief intellectual property officers who are equipped with both IP practice experience and strategic mind-set at the same time. Throughout the course the students can develop strategic management concept based on intellectual capital strategy as well as the traditional analytical frameworks of strategists including Michael Porter.

### SJ960 M.S. Thesis Research

This course is for those students who will draft dissertations to meet the graduation requirements. This subject provides an opportunity to fuse the scientific journalism-related skills and field-specific expertise learned through the advice and collaboration of the guidance professors.

Special lectures on research & analysis methods and colloquia can be arranged by agreed decision of the thesis advisors.

SJ996 Independent Study in M.S.

This is a research course for individual research. It provides an opportunity to fuse the technologies and knowledge related to science journalism that have been learned personally or through the execution of team projects.

Individual research projects prepared by the advice of assigned guidance professors and collaboration of individual members of the team will be presented at the end of the semester presentation before submitting a report.