

Grading System

This is to inform you about the grading policy of Kyoto University International Education Program (KUINEP).

KUINEP students are required to register for a minimum of 12 credit hours (6 courses) per semester in principle.

All KUINEP students will receive an academic transcript at the end of each semester. This will contain the names of courses studied, class contact hours, number of credits awarded, and scores out of hundred. Grades for achievement are given according to the following code:

A	=	80~100%
B	=	70~79%
C	=	60~69%
—	=	Fail (59.9% or less. No credits awarded.)

The class ranking system/relative evaluation is not taken at Kyoto University. Absolute evaluation will be made.

1. Development Economics A

Theme Developing countries and the role of labor, capital and technology

Course Overview

The world's population is expanding at a dramatic speed. At the same time, the gap between the rich and the poor is widening, and a large number of people are forced to live below the poverty line. Unfortunately, there is a downward spiral where poverty invites more poverty, creating a tragic situation.

- (1) Economic development is a major factor in solving poverty. But what exactly is Economic development?
- (2) The term “a developing country” implies that the country is underdeveloped. Underdevelopment is measured in various ways: lowness of income, unequal distribution of wealth, starvation, high infant mortality rate. Underdevelopment will be analysed from various statistics.
- (3) Visitors to developing countries are often surprised by how hard the people are working. Why can those who work so hard achieve only one hundredth of the income of those in a developed country? Economic theory will point to slowness in the accumulation of capital. What role does capital play in economic development? Accumulation of capital does not only imply money but also technical progress and increase in human capital, both of which contribute to economic development. Let us study these factors in the light of economic theory.
- (4) What kind of an environment does a country need to accumulate capital? What effect does mal-distribution of wealth, which is seen in many developing countries, have on accumulation of capital? What kind of a financial system does a developing economy need to circulate necessary capital?
- (5) Applying these theoretical viewpoints, we will reflect on the successes and failures of economic development in the past, using Latin America, Asia and Japan as examples.

The course will be interactive. Reports of the World Bank and other materials for the

following class will be introduced or distributed during each class. Attendants must study the material before each class and will be expected to participate in active discussions. Two papers will be required during the course.

Evaluation will be made based on participation in the discussions during class and the written paper.

Topics

1. What is development?
2. Faces of underdevelopment
3. Growth theory
4. Economic inequality and poverty
5. Capital accumulation and financial market
6. Technological development
7. Education as human capital investment
8. States and development

2. Applied Statistics

Theme To Learn What Statistics is and How to Use statistical tools.

Course Overview

This class is a survey of basic concepts in statistics. We will focus on applications rather than mathematical ideas. As such, we will spend most of our time using statistics to analyze real-life situations. The course is suitable for all majors.

Topics

1. Basic Probability Theory
2. Elements of Statistics
3. Describing Sets of Data
4. The Normal Distribution
5. Estimation
6. Test of Hypothesis
7. Regression Analysis
8. Time Series
9. Analysis of Variance
10. Decision Analysis

3. Understanding Education, Human Lives and Cultures from Philosophical and Sociological Perspectives

Themes and purposes of the course:

This course is designed to improve your understanding of education, human lives and cultures from philosophical and sociological perspectives. There are two parts to the course. The first explores implications of American philosophy for understanding education. The second examines the meaning of changing Japanese lives for contemporary education using sociological research results. Taken together, you are expected to deepen your thinking of how education contributes to developing a global citizen.

Part 1: Philosophy of Education, Globalization, and the Understanding of Other Cultures (Saito Naoko)

This part is a course on American philosophy and its implications for education. In the age of globalization, education from the primary level to higher education has been absorbed into the culture of accountability. A global network of communication affects the way that teaching and learning are conceived, and this has a critical effect on the understanding of other cultures. In the context of this trend there is a need to reconsider what it could mean to be a global citizen and, further, what the implications of this for cross-cultural understanding might be.

The central figures whose texts we shall read are Emerson, Thoreau, Dewey, and Cavell. They share the ideas of “philosophy as education” and of education as the perfection of the self and culture – what Cavell calls Emersonian moral perfectionism, the idea of perfection without final perfectibility. In reading the primary of, and secondary texts on, Emerson, Thoreau, and Dewey, as well as Cavell, we shall focus on this running thread of perfectionism in education in the fabric of American philosophy. These are thinkers who criticize American democracy from within and address the problems of American’s encounter with other cultures.

Discussion will include the following themes: (1) The idea of democracy as a way of life in an age of globalization; (2) Alterity, the understanding of other cultures, and the exoticization of the other (with reference especially to America’s encounter with East Asia; (3) Global citizenship and cosmopolitanism; (4) Patriotism and moral education (the relationship with the native language and culture); and the (5) The problems and possibilities of translation as a mode of cross cultural dialogue. In the course of addressing these themes, we shall endeavor to find the educational

implications of “perfectionist education,” especially for moral and citizenship education.

Part 2: Changing Japanese Lives and the Implications for Contemporary Education.

This part focuses on the ways in which Japanese individual lives are shaped by the society and also examine the ways in which the collective biographies of larger birth cohorts (social generations) affect, and are affected by, social changes. Special attention will be paid to the two periods and two generations; the transition period from rapid economic growth in 1960s to stable development in 1970s; after the late 1990s, which is known as “the lost decade” in Japan; the first baby boom generation born in 1947-49; the second baby boom generation born in 1971-74. After introducing basic ideas about the Japanese family as a moral base, the course will clarify the impacts of family and life course changes on individualization in contemporary Japan using empirical findings from my own sociological research. Further discussion will focus on the roles of education in developing a global citizen under the current conditions.

4. Innovation and Industry

THEMES

1. Management of Innovation
2. Innovation on IT and Service Industries
3. Automobile Industry

1. Theme Management of Innovation

This part is about the management of innovation. It introduces some basic concepts, frameworks and perspectives useful to understand nature of innovation, innovation’s impact on business and competition, and strategies to manage innovation. This part uses a combination of lectures and case discussions.

Topics and Key Words

Nature of innovation

Innovation’s impact on business and competition

Strategies to manage innovation

2. Theme Innovation on IT and Service Industries

This part of the class curriculum is about the practical aspects of the management of

innovation for the IT and service industries. It introduces key governance rules such as power laws, small world networks, and service dominant logic, illustrating them with the examples of Facebook, Google, Amazon, eBay, etc. It also explains the recent business models along with the nature of the IT and service industries.

Topics and Key Words

Service science, Service innovation, Governance rules, Business models, Service value creation

3. Theme Automobile Industry

Automobile industry has many research fields such as product development, production, parts purchasing, marketing and scraping. In this class we discuss about five topics. (1) Marketing strategies in developing countries such as China and India. (2) International Competitiveness of Japanese, Korean and Chinese Automobile Industries. (3) Chinese Electric Vehicles in Rural Areas. (4) Used Vehicle Distribution in China. (5) Automobile Distribution through Internet.

5. Life Science I

Course Overview

Life science, the overall study of life, has been based on natural history, and now involves diverse fields of basic and applied sciences such as molecular and cell biology, genetics, biochemistry, physiology, medicine and agriculture. Life science today is particularly important and exciting for several reasons. First, the molecular and chemical bases of many cellular processes in living organisms have been elucidated. Second, it is now evident that the common genetic and molecular principles underlie the diverse expression of life. Third, progress in life science, especially biochemistry and molecular biology, is profoundly influencing medicine and agriculture, i.e., diagnosis and therapy of diseases and production of genetically modified foods. Fourth, the powerful modern techniques in life science have been rapidly developing as biotechnology and contributing the reformation of the traditional study fields.

In this course, the fundamentals and recent progress in molecular and cell biology will be reviewed with special emphasis on genome science, signal transduction and development.

6. Japanese Religious Traditions I

In the course of history Japan has adopted and developed various belief systems which had, or still have, a great influence on Japanese culture and thought. Many of these belief systems have indeed survived the passage of time, and still continue to inspire the faith of the modern believer or the curiosity of the unfamiliar observer. This course intends to provide basic knowledge of the religious traditions of Japan by focusing on their historical-cultural and doctrinal context, and thus contribute to a better understanding of Japanese culture as a whole.

Fall semester classes will cover the following topics:

1. Early Japanese religion
2. The introduction of Buddhism
3. Esoteric Buddhism (Shingon and Tendai traditions)
4. Shinto-Buddhist combinatory religion
5. Yin-Yang thought and practices
6. Visions of heaven and hell
7. Kumano pilgrimage

7. Global Marketing

Course Overview

A company's Business Strategy should be the guideline, which the company uses to establish its long-term goals, to employ/utilize management resources and construct/establish a competitive domain in a changing environment. This course provides students with basic concepts and skills needed to develop business strategies, marketing strategies, and financial and accounting strategies. Special emphasis will be placed on quantitative analysis and having a basic understanding of how to incorporate business strategies into business plans and financial figures.

Topics

1. Business strategy analysis (Business Strategy Analysis)
 - 3C analysis: Customer/ Company/Competitor/
 - 5 forces, value chain, PMA(Product Market Analysis)
 - SWOT Analysis(Strengths, weaknesses, opportunities and threats)

2. Marketing strategies

STP analysis : Segmantation/Targeting/Positioning

4P analysis : Product/Price/Promotion/Distribution

Methods of marketing research

3. Financial & Accounting strategies

Acquisition and understanding of financial information.

Financial ratio analysis

Cashflow analysis

Project evaluation methods (Net present value, Internal rate of return, Theoretical value of the company).

Once the lessons are finished, students are required to create their own business plan and present it to the class.

An MS Excel sheet that incorporates F/S (Financial statements), B/S (Balance sheet), and C/F (Cashflow) will be distributed in the class. This program will be used to make students understand how to incorporate management strategies into a business plan and financial projections. Upon first run of the financial projections, students may reconsider their business plan with the information gathered from the outcome of the projections.

Students can also review the basic structure and relationships of P/L, B/S, and C/F and the meaning of financial analysis derived from them.

Grading Policy

Students are expected to prepare a business plan in groups and give a group presentation. Grades are determined based on : 1) Group presentation, 2) Final tests and 3) Individual report.

Comments

Through the process of business plan creation, students are expected to gain an intuitive understanding of business plans and of the financial figures embodied in business plans. The topics that students will choose do not have to be limited to cases from Kyoto, or even from Japan. Cases from other countries are also welcome. When cases in Japan are selected, the lecturer will advise students on how to obtain and interpret data.

Prerequisite

Prior knowledge of management is not necessary. However, it is preferable that students have basic operating skills in EXCEL since the regression analysis and financial analysis will be done using EXCEL. A Power Point (PPT) presentation will also be required for evaluation, and students are expected to be familiar with PPT by the end of the term.

8. Self-Formation in Adolescence

Course Overview

How do people know, understand, and form the self? This course explores developmental and formational processes of the self from birth to adolescence.

The concept of others is key to understanding the self. The course will frequently emphasize the role of others for self-development and self-formation. Jacques Lacan, a psychotherapist, said that people formed the self through narration with others.

New studies in brain science, neuropsychology, ethology, sociology and developmental psychology are greatly developing our view of self-development. In this course, I will also discuss the findings and experimental achievements of those fields, using as many videotapes and illustrations as possible.

No specialized knowledge is necessary because this is a liberal education course. Students of any major are welcome.

Topics

1. Introduction of self-formation in adolescence
2. Human capacity for assimilating to others
3. Self-development and others
4. Allocentrism and positioning in others in childhood
5. Emerging role conflicts: Declining traditional values and beliefs
6. The multiple and dialogical self: Other different I's are others?
7. Integration of multiple mes in postmodern society

9. Introduction to Classical Japanese Literature

Theme Exploring Recurrent Themes, Ideas and Values Seen in Classical Japanese Literature

Course Overview

Whether it be the eloquent verse of an Ono no Komachi who pines for her unfaithful lover, the amorous tales of a Hikaru Genji who in turn learns of his own wife's

seduction by another man, or the heroic account of a Yoshitsune who, despite achieving victories in battle, is ultimately pursued to the point of death by his own brother, classical Japanese prose and poetry pose important questions for us to consider.

What events, what things, what qualities provoked the artistic sensitivities of pre-modern Japanese writers and moved them to literary expression? What appealed to them and what did not? What were the objects of Japanese aesthetic appreciation? What ideas and values have gained acceptance in present-day Japan, and how have others been altered to suit modern tastes?

In the course of our study, we will attempt to answer these and other questions based on a careful reading of selected works. We will explore themes such as *mononoahare*, *wokashi*, *irogonomi*, *mujo*, *yugen*, *hana*, *fuga*, *wabi/sabi*, *sui/iki/tsu*, *giri/ninjo*, *kanzenchoaku*, etc., as seen in representative works from the Nara Period through Edo times. In many cases the themes are recurrent, drawing upon the literature of preceding eras or profoundly influencing that of later periods, and they offer valuable insight into Japanese ideals and ways of thinking. We will also discuss examples, as seen in the literature, of pre-modern Japanese conventions, cultural practices and social values — *tsumadohi*, *inton (tonsei)*, *masurawo vs. tawoyame*, *hoganbiiki*, to name a few.

Some of the genres we will cover in our discussion: *waka* poetry (*Manyoshu*, *Kokinwakashu*, *Shinkokinwakashu*, etc.); chronicles/histories (*Kojiki*, *Nihon Shoki*, etc.); diaries (*Tosa Nikki*, etc.); narrative prose (*Genji Monogatari*, *Konjaku Monogatari(shu)*, *Heike Monogatari*, etc.); essays (*Makura no Soshi*, *Hojoki*, *Tsurezuregusa*); critical studies of poetry and prose (*Mumyosho*, etc.); drama (*noh*, *yoruri*, *kabuki*); *haikai* (*haiku*) poetry (*Oku no Hosomichi*, etc.); as well as the popular prose fiction of Edo Period writers (*Koshoku Ichidai Otoko*, *Ugetsu Monogatari*, etc.). We will also address writing styles and literary devices used in these works and examine their various functions.

Topics

1. Overview of the History of Japanese Literature
 - (1) Major periods and trends
 - (2) Genres and themes
 - (3) Representative authors and works
2. Nara Period
3. Early Heian Period
4. Mid-Late Heian Period
5. Kamakura Period

6. Nambokucho, Muromachi, Azuchi-Momoyama Periods
7. Edo Period
8. In-Depth Study
 - (1) Data collection
 - (2) Reference sources and research tools
 - (3) Critical thinking and analysis
 - (4) Presentation techniques
9. Research Project (Group Activity)
 - (1) Critical reading of a selected work (to be determined by instructor)
 - (2) Discussion and analysis
 - (3) Presentation

10. The World of Open Education

Course Overview

An emerging open education movement has been transforming the landscape of higher education both globally and locally. By making educational assets free, open and accessible, the movement is beginning to radically change the ecology and economics of education. This can be seen in the upsurge of publicly shared course websites and lecture videos from colleges and universities. Institutions have also formed consortia to co-develop open-source educational technologies, creating new models of collaboration for the production and distribution of educational resources. Additionally, international agencies, such as UNESCO, are actively exploring the viability of open solutions to address large-scale educational reform. As a consequence, countries are beginning to grapple with how the movement can bring vitality and relevance to curricula, and are rethinking their educational infrastructure to better support open education. This course discusses the current trend of open education with its possibilities and challenges as well as explores how we can take full advantage of “openness” in education to further advance learning and teaching.

11. Agriculture and Foods in Japan

Course Overview

Rice is the symbol of Japan, Japanese culture, Japanese food and Japanese environment. Besides rice, Japanese has utilized soybean and wheat as a starting material for as a seasoning Miso and Shoyu, and a Japanese noodle, Udon. In this class, three natural scientists will give lectures on rice, soybean and wheat as crop plants and of Japanese agriculture. Particular attention will be paid to a modern processing of these grains

and to organic farming.

Topics

What are Japanese Foods? Let's talk about the image of Japanese Foods.

1. Brief history of Japanese Foods in the modern age

Japanese Foods are affected by foreign culture and imported foodstuffs especially for these 140 years. I would like to talk how the present style of Japanese Foods has been established.

2. Traditional or typical Japanese Foods (How do we make and eat them?)

(Classification according to food materials)

Rice (Sushi), Wheat (Noodles such as Udon, Sohmen. Cakes such as Manju), Soybean (Tofu), Fishes (Kamaboko), and Fermented Foods

3. New Food Products in Japan

New Food Products with high qualities from the viewpoints of nutrition, acceptability (delicious?) and biological functions

Rice plant: origin and classification, morphology and plant growth

Beginning of rice cultivation in Japan

1. Production in the past; constraints and technology development

Fertilizer: How does nutrient supply limit production?

Temperature stress: Famines in the history and mechanisms

'Northing' of rice-culture front and high temperature damage

Insect damage

2. Current production and challenges

Production cost to enhance competitiveness

Roles of the small farmers in community

Technologies for high eating quality

Soybean production as an alternative summer crop

3. Some concerns for future production

Challenges for 'Super high-yielding' production

Uncertainty related to climate change

Agriculture and Environment

12. Energy and Resources I

Themes

1. Biomass Resources as the Post-Petroleum Science

2. Energy-Environmental Issues and Technology

3. Systems-Analysis Approach to Energy-environmental Issues

1. For efficient use of biomass resources, an appropriate conversion to biofuels and chemicals is essential by the best combination of biomass species with its conversion technology. In this lecture, therefore, biomethanol, bioethanol, biomethane and biodiesel were selected as biomass-derived fuels, and their conversion technologies were studied with suitable biomass species to evaluate their potentials as substitutes for fossil fuels.
2. The energy and environmental problems are not any longer the issue of each country but it must be globally considered from an earth-scale view point. This lecture series first introduce those locally and globally existing problems and the possible solutions, followed by focusing on eco-materials including photocatalytic materials and other latest technologies from the principle to the application as a possibility of the solutions.
3. One of the important characteristics of the energy-environmental systems is that the systems include humans as independent decision-makers. Therefore, we, humans, should not only make decisions about energy supply and demand but also decide the framework of the decision-making. This situation brings us very interesting but serious issues. In this lecture the systems-analysis approach to these issues, that is, the systems analysis of the energy-environmental systems based on statistical models, optimization models and simulation models, is briefly explained, and then investigated is what is necessary for supporting the decision-making of human.

13. Social Science Research Methods in Education I

Theme Japanese Education from Cross-Cultural Perspectives

Course Overview

This course provides an introduction to various aspects in Japanese education, while it focuses on sociological research and theory that are related to education from cross-cultural perspectives. Topics will include; patterns of socialization, analysis on “meritocracy” in various countries, rapid and unbalanced expansion of schooling system around the world, and educational issues facing current Japanese education.

The primary purpose of the course is to provide the student with the factual knowledge, conceptual tools and approaches for understanding Japanese education and education of student’s own. Class will be interactive in a mixed style of lectures and discussions,

with occasional use of videos.

Topics

1. An Overview of Japanese School System
2. Functions of education - A cross-cultural analysis
 - (Function 1) Socialization
 - What is “socialization”?
 - Patterns of socialization in families and schools
 - (Function 2) Transmission of culture
 - How to pass on cultures?
 - Cultural diversity and educational controversy
 - (Function 3) Social control and personal development
 - The birth of modern school space
 - Life of adolescents
 - (Function 4) Selection and allocation
 - What is a “meritocratic” society?
 - The social context of entrance examinations
 - Transition to university and to work
3. Various issues in education
 - (1) Expansion of schooling system
 - (2) Issues Facing Japanese education---Ijime(Bullying), Futoko (Truancy)
4. Observation and interview in educational settings

14. Happiness

Theme

The objective of this course is to offer a comprehensive view of “happiness” as the ultimate purpose of life. The scientific, philosophical and religious backgrounds of happiness will be presented in relation to perceptions about human nature. This series of lectures is intended to provide students of every discipline an opportunity to think about the meaning of life. It is hoped that students may reflect upon what they learned in this course when they will be engaged in serious decision making.

Course Overview

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course when they will be engaged in serious decision making.

Like an elephant, happiness has such varied aspects so that your limited experience may misguide you to have a holistic notion of what it really is.

See the Ukiyoe depicting the examination of an elephant. By Hokusai

It is quite good to enjoy and be satisfied with things around you. But if you want to generalize your experience and to have communication with others, you must be careful if your experience can be generalized or not. There can be many different sides of an object, which you cannot understand by your limited experiences.

What we will examine in this class:

1. Four stages of happiness: 1. Increase of utility. 2. Its continuation. 3. Recovery from hardship or sorrow. 4. To see happiness even in hardship and sorrow itself.
2. Marginality of happiness: Weber-Fechner's experiment on the logarithmic nature of our perception of the intensity of utility. To increase good feeling 2 times, stimuli must increase 4 times.
3. Utilitarian happiness: The greatest happiness (utility) for the greatest number of people. Counting only contemporary population does not mean the greatest number.
4. Deborah Number: DN Everything has its relaxation time, τ . The ratio of relaxation time vs. time of observation, t is DN ($= \tau / t$). τ of human life is ca.50years. τ for human species is 1,000,000 years? We should worry about our happiness in the time range $DN < 1$. Note that 50 years can be forever and an instant. It is true for a million years.
5. Universe in which we live: Space, Time and Material (energy). Space-Time composes a four dimensional world. What are contained in such world are ourselves and things around us.
6. Pascal's Wager: The choice one should take when there is an alternative possibility. Pascal said, to bet on the non-existence of God is too risky. This wager may be better applied to the choice between a life without discretion seeking money and a happy proud life without money.
7. Nothing is absolute: Joy cannot exist alone. If there is no sorrow there is no joy. Happiness exists because there is unhappiness? Can you hear the sound of one handed clap (Zen Buddhist Hakuin's riddle)?
8. Imaginable happiness and unimaginable happiness:
Joy and pleasure are easy to image. Sorrow and hardship are often beyond imagination. [All happy families resemble one another, but each unhappy family is unhappy in its own way.] Anna Karenina by Leo Tolstoy (Russian novelist, 1828-1906). Do you prefer to be equal with majority or to be different from others? Do you understand the phrase: [Sorrow is better than laughter (Old Testament:

Qohelet)]? The following phrase is: [for by the sadness of face the heart is made good].

9. Stories of satisfied persons do not move the hearts of listeners:

What do you do when you have become happy? Elimination of purpose may bring misery?

10. Happiness is: Both individualistic and universal. Both nominal and real.

11. Evil has its role for the achievement of happiness?:

Evil exists in the world not to create despair, but activity. It is not only the interest but the duty of every individual to use his utmost efforts to remove evil from himself and from as large a circle as he can influence (by doing so) he will probably improve and exalt his own mind. (Malthus 1798).

12. Primum vivere deinde philosophari:

We have to live before being happy. Importance of natural environment preservation.

15. GREEK DRAMA ON THE JAPANESE STAGE

THEME Ancient Greek theatre and its Nachleben on the Japanese stage

COURSE OVERVIEW

This is an introductory course on ancient Greek theatre and its reception in Japan. The course is intended for students without any prior knowledge of the subject.

What are the universal qualities of Greek drama? What do the plays teach us about suffering, loss, passions, and, in short, about being human?

In what ways do Japanese producers (Ninagawa, Suzuki, and others) transform/appropriate this material?

Ancient Greece, Elizabethan England and medieval Japan have produced some of the best playwrights in the world. Can we compare them? How much do they have in common with one another? And how do the political systems (democratic Athens vs. feudal Japan) influence what is permissible on stage?

The performances we will watch are for the most part in Japanese without English subtitles, so you should be able to understand a fairly flowery style of Japanese or at least be ready to read the plays in translation before class.

TOPICS

1. The context of theatrical performances in ancient Greece: the where and how. What were the theatre buildings like? How important was it that the plays were performed in a

competitive context as part of religious festivals? How did the political situation in Athens shape the form of the plays?

(1) What can the extant archaeological monuments tell us about the ancient Greek performances? We have a number of Attic and Italian vases with painted scenes from drama, Hellenistic mosaics and terracotta figurines of actors and masks, etc. This material can help us (to some extent) visualize ancient performances.

2. Already during the lifetime of the three star playwrights of Athens (Aeschylus, Sophocles, Euripides) and even more so from 4th century BC onwards, Athenian drama was exported abroad and actors were international celebrities. What was behind this universal appeal of theatre?

(1) What are then the universal qualities of Greek drama? What do the plays teach us about personal loss, human suffering, uncontrollable passions, and, in short, about being human?

3. In what ways did Japanese producers (Ninagawa, Suzuki, and others) transform/appropriate this material? What was their agenda? And why does exotic ancient Greek material feel so modern in their hands? This may naturally lead us to a discussion about shifting cultural boundaries, but we will rather watch DVDs of Japanese productions of Greek drama: Ninagawa's King Oedipus (with Nomura Mansai), Medea (with Arashi Tokusaburo and, time permitting, at least a few scenes from his production 20 years later with Otake Shinobu) and a couple more plays.

1. Development Economics B

— International Trade and Financial Market

Theme International trade and financial markets, their role in the economic development

Course Overview

International trade and financial markets play a significant role as developing countries try to develop their economies and catch up with the industrialized countries. This course will deal with the role international trade and financial markets play in the economic development of developing countries.

- (1) It is often the case that there is a considerable benefit for countries participating in trade on an international scale. Why is this the case? We will learn about the comparative advantage theory which is the supporting idea of the free trade.
- (2) From the 1960s to the 70s, the Latin American countries pursued an import substitute policy, which resulted in the inefficient protection of domestic industries. As a result, more liberalized policies were adopted in the 90s. In comparison, East Asian countries succeeded by pursuing export-led economic development through aggressively courting direct investment. Such an experience seems to indicate that an export-led industrial policy leads to successful economic development. But what are the factors that are indispensable to success?
- (3) The world seems to be moving, on the one hand, towards multilateral arrangements for trade liberalization led by the WTO, and on the other, towards bilateral or regional arrangements such as the creation of free trade areas (FTA). What benefits and problems do these arrangements bring to developing countries?
- (4) As the real economy internationalises and economies develop, developing countries need funds from the domestic and international financial markets. For example, East Asian economies enjoy high savings rates, which was the key to their rapid growth in the 90s. In this process, informal finance has played an important role. We will look at informal and formal finance systems of the Asian countries.
- (5) At the end of the course we will study the case of Vietnam from the viewpoints of rural development, trade and finance based on the recent data.

The course will be interactive. Reports of the World Bank and other materials for the following class will be introduced or distributed during each class. Attendants must study the material before each class and will be expected to participate in active discussions. Two paper will be required during the course.

Evaluation will be made based on participation in the discussions during class and the written paper.

Topics

1. International trade and economic development
2. Theory of comparative advantage
3. Industry policy for development
4. WTO and FTA
5. Development and finance
6. Case study: Vietnam

2. Modern Physics

Theme

The purpose of this course is to introduce engineering and science students to the foundations and principles of modern physics, specifically quantum mechanics and its applications.

Course Overview

We will study the main concepts of quantum mechanics developed since the turn of the century. The overall learning objective is to acquire the contextualized knowledge and analytic skills necessary to construct an understanding of phenomena in the domain of quantum mechanics. To this end, we will cover the following topics.

Topics

1. Crises in Classical Physics
2. Planck and Blackbody Radiation
3. Einstein and Photoelectric Effect
4. Compton and Rutherford Scattering
5. Bohr Model
6. DeBroglie's Matter Waves
7. Birth of Quantum Mechanics
8. Schroedinger Equation

9. Square Well Potential
10. Scattering in One dimension
11. Simple Harmonic Oscillator
12. Electron Spin
13. Spectroscopy
14. Other Applications

3. Exercise and Medical Science for Prevention of Lifestyle-related Disease

Theme:

Exploring the Current Knowledge Concerning the Etiology of Lifestyle-related Disease and Its Prevention

Course Overview:

This course is designed to describe the current knowledge concerning the etiology of lifestyle-related disease. Exercise and dietary countermeasures will be discussed.

Japanese daily energy intake per person reached a peak value of 2,226 Kcal in 1975 and has since dramatically dropped to 1,902 Kcal in 2004 which is nearly identical to the values immediate post World War II. However, obesity has sharply increased despite this dramatic decline in energy intake. This may be, in part, the result of a “relative energy surplus” caused by a ***decline in energy expenditure*** far exceeding ***the decreased energy intake*** due to modern industrialization. Bray has proposed the “MONA LISA” hypothesis, an acronym for ***Most Obesities kNown Are Low In Sympathetic Activity*** indicating that obesity is associated with a relative or absolute reduction in the activity of the thermogenic component of the sympathetic nervous system. It is now well recognized that “middle age obesity” is strongly associated with a depressed autonomic nervous system (ANS) activity and aging, particularly the sympathetic thermogenic responses to a high-fat diet and irregular food intake pattern.

Our series of studies have suggested a potential reversibility in ANS activity regulating fat metabolism and appetite control by regular exercise training in middle aged individuals and obese children with depressed ANS activity.

In other words habitual exercise plays a vital role in enhancing not only fat and glucose metabolism, but also ANS activities in the prevention of obesity and appetite control. Recent studies have clearly indicated that exercising obese individuals have a much lower mortality rate and incidence of diseases than lean individuals with little or no exercise. A possible explanation could be due to the effects of exercise on immune functions and myocytokines in preventing and improving of lifestyle-related diseases.

Topics:

Our discussion will cover, among others, the following topics:

1. Modern Lifestyle and Hypokinetic Disease
2. A Lesson from NASA Astronaut Experiments
3. Why Do We Get Fat? Etiology of Human Obesity
4. Obesity, Hypertension, Diabetes and Hyperlipidemia: The “Deadly Quartette”
5. Stress and Lifestyle-related Disease
6. Why is the President of the USA jogging?
7. Why Exercise Can Prevent Heart Attack, Diabetes, Cancer and Other Disease
8. Nutrition, Exercise and Aging
9. Exercise and Mental Health

4. Social Science Research Methods in Education II

Theme Planning and Conducting Social Scientific Research on Education

Course Overview

Education is a complex subject partly because everyone, having been educated, has a personal view about what education should be and should not be. However, generalizing from one's own experience can be dangerous. This is one of the reasons why sociological perspectives become important in the field of education. Moving between the particular and the general, the personal and the social, the concrete and the abstract is one of the capacities we will try to develop in this class.

Students will learn the nature, purposes and methods of social science research in the field of education and each student will experience a small-scale research project. Students will be asked to go out and take a close look at what is happening and what has happened in Japanese education.

Class time is used for instructor's lecture, discussion, and students' presentation.

Topics

1. Overview of the Development of Social Science Research
 2. The Nature and Purposes of Social Research in the Field of Education
 3. “Education” from Comparative Sociological Perspectives
 4. Research Planning: What Are Your Questions?
 5. Introduction to Research Methods
- 5-1: Modes of Inquiry- Quantitative Modes of Inquiry and Qualitative Modes of

Inquiry

5-2: Data Collection Techniques

(1) Questionnaire (2) Observation (3) Interview

5-3: Interpretations of Data

6. Ethical issue in Social Research

7. Conducting Your Project

5. Building a Sustainable Future : Principles and Challenges

Course Overview

Sustainability – living within our means without compromising future needs – is the core environmental principle explored in this course. Students will first examine key environmental issues facing communities worldwide. Later, after conducting fieldwork in specific communities, student groups will present ideas on addressing these challenges to the class. Students wishing to take this course will need a good command of English. The maximum number of students that will be accepted in this class is 20.

Topics

What is Sustainability? Definitions, Principles and Challenges.

Sustainable Natural Resource Management.

Sustainable Food, Water and Energy Supplies.

Disaster Reduction and Sustainability.

Campus Sustainability

Greening Campuses Worldwide/Greening Kyoto University.

Guided student fieldwork around Kyoto University campus.

Student group reports and discussion based field observations.

Making Cities Sustainable

Sustainable Cities and Low Carbon Urban Societies

– Global Issues and Local Issues.

Guided student fieldwork around Kyoto city.

Student group reports and discussion based on field observations

Sustainable Mountain Communities and Sustainable Coastal and Island Communities.

Sustainable Development of Mountain Communities – Global issues.

Miyazu Field Trip

Sustainable Mountain Development in Japan : Local Issues.
Guided student fieldwork in Seya, Miyazu.
Sustainable Development of Coastal and Island Communities
– Global Issues and Local Issues.
Student group reports and discussion based on field observations

6. Japanese Religious Traditions II

In the course of history Japan has adopted and developed various belief systems which had, or still have, a great influence on Japanese culture and thought. Many of these belief systems have indeed survived the passage of time, and still continue to inspire the faith of the modern believer or the curiosity of the unfamiliar observer. This course intends to provide basic knowledge of the religious traditions of Japan by focusing on their historical-cultural and doctrinal context, and thus contribute to a better understanding of Japanese culture as a whole.

Spring semester classes will cover the following topics:

1. Nenbutsu practice
2. Early Zen Buddhism
3. The Lotus Sutra in Japanese tradition (Nichiren)
4. Medieval Shinto and sacred kingship
5. The esoteric dragon
6. Later Zen Buddhism
7. Folk religion

7. Global Business Strategy

Objectives

This course is the continued series of “Essentials of Business Strategy I”. This course covers basic knowledge of management, which is not covered in “Essentials of Business Strategy I”. We will also use several case studies to help us understand theoretical frameworks in practice. We will then explore the linkages between concepts and practices.

Topics

1. Financial, accounting strategies and evaluation techniques, such as:

Cash-flow analysis

Cost of capital, CAPM (Capital Asset Pricing Model), WACC (Weighted average cost of capital)

Business evaluation method (Net present value, internal rate of return, theoretical value of the company).

2. Important management theories and issues (not yet covered in “Essentials of Business Strategy I”) such as:

Competitive strategies (Kotler)

Domain identity

Core competence

Blue ocean strategy

CSR (Corporate Social Responsibility)

Communication

Environmental management

International management, etc.

3. Case studies on using analytical tools in strategy, marketing, accounting, and finance.

8. Entrepreneurship

Course Overview

We are now living in the entrepreneurial age. Knowledge about entrepreneurial process is critical, not only for students who are interested in entrepreneurial career, but also for students who seek to work in large organizations, because the need for all companies to maintain an entrepreneurial perspective is increasingly important.

This course will examine the venture creation and growth process at the various stages of generating ideas, recognizing and pursuing opportunities, raising capital, building infrastructure, and eventually harvesting the venture. This course addresses the issues faced by entrepreneurs who wish to turn opportunity into viable start-up companies that create value, and empowers students to develop their own approaches, guidelines, and skills for being entrepreneurs. During this course, students can practice the entrepreneurial process, and can become more adapt at the decision making and skills of OPPORTUNITY RECOGNITION and RESOURCE ACQUISITION.

General Course Organization

In this course, we will rely upon lectures, case studies, and course projects to expose students to a wide array of ideas and material on entrepreneurship. Therefore,

significant preparation and participation is expected from students. Our emphasis will be on engaging in lively and productive class discussions. Students will be expected to come to class fully prepared to discuss the reading and case material, by considering key issues or questions that are raised as a result of preparation for that week.

Course Schedule

1. Introduction
 - What is Entrepreneurship ?
 - Venture Idea Generation
2. Identifying Valuable Opportunities
 - Assessing Criteria of Opportunities
3. Individual Idea Presentations and Group Formation
4. Business Plan – 1
 - Objectives of the business plan
 - Executive summary
 - Product/service offerings
 - Customer needs
5. Business Plan - 2
 - Evaluating market size
 - Competitive analysis
 - Financial projection (rough)
 - Key analytical tools
6. Case Discussion 1 : Takahiko Namiki, the three million yen entrepreneur
7. Progress Review of the Group Work
8. Managing Uncertainty and Growth
9. Case Discussion 2 : Noodles & Company
10. Creating and Harvesting Values for Stakeholders, Exit Strategies
11. Business Plan Presentations-1
12. Business Plan Presentations-1

9. Universities and University Students in Today's Japan

Course Overview

Why do young people go to university? How does higher education affect young people's life formation? How have Japanese universities and university arrived at their present state? This course answers these questions.

Although this course focuses on universities and university students today, much of the

lecture's contents come from postwar data and materials. The present state of universities and university students can only be explained when they are located historically. The final aim is to understand universities and university students today; however, I would like participants to enjoy studying the historical process by which higher education and young people's lives in Japan changed.

This is the first time I've provided a lecture for KUINEP on these topics in English. Unlike other universalist disciplines, these course topics are socio-culturally specific. As far as I know, many of the technical terms and materials available in them have not been taught in English. Therefore, the course, especially in the first year, may be challenging. I will provide opportunities to ask questions, so I expect participants to be actively involved in the class. While I believe that participants can enjoy and learn a lot through the course, please be aware of these features of my lecture.

Topics

1. Three postwar periods for university students' life formation
 - Periods: (1) the 1960s, (2) the 1970s-1980s, (3) the present (since the 1990s)
 - What was happening behind student movements in the 1960s
2. Retreat of authority in adult society
 - Decreasing counter culture of youth since the 1970s
 - Internalized moratorium
 - Disappearing Japanese business model after the collapse of the bubble economy
3. Changes in life formation dynamics for Japanese university students
 - From outside-in dynamics to inside-out dynamics
 - From adaptation to de-adaptation in adolescence
4. From enlightening education to knowledge-creative education
 - Hidden curricula in education
 - The postmodern educational situation
 - Increasing social demand for generic skills
 - Collapsing credit system toward students' active learning
 - Japan's education today in comparison with other advanced countries

10. Law and Politics in Japan

Course Overview

This course is designed to build up a basic understanding of law and politics in Japan. Consisting of three series of four lectures, it will give students a whole panoramic picture from the ancient to the contemporary. The first and the second explain how the Japanese society has been formed from, respectively, political and

legal perspectives, while the third will concentrate upon current cutting-edge issues.

1. Japan in the World: from pre-modern period to the 21st century

Topics

1. Making of Japan-ness: Japan in the Asian traditional world

This class introduces the students how Japan's politics and culture was formed in the context of both waves of strong Asian influences and its unique attachment to its own ancient culture. It covers from the ancient period up to the early Edo period.

2. From Late Edo period to the "Great War"

Japan's modern period started when Japan became conscious of Western political influences in late 18th century. Through the Meiji Restoration and succeeding modernization period, Japan took the course of Westernization and Expansion over Asia. This class covers this development.

3. Postwar Japan's politics and international relations

After the defeat in the Second War, Japan, as a nation-state, pursued a unique course of peaceful economic development under the Cold War context. This class discusses the international and domestic context of this development.

4. Current Critical Issues for Japan's Politics and International Relations

This class deals with various international issues Japan faces today, such as the alliance with the United States, relationship with China and two Koreas, and other critical issues such as Asia-Pacific and East Asian cooperation or global agenda.

2. Japan's Legal System in a Historical Perspective

We will deal with the same period (and probably same issues) as in the first part from a considerably different perspective so as to obtain deeper understanding the Japanese political/legal system.

Topics

1. Pre-Meiji Period from a Legal Perspective

How did people live and organize their social relations in a society that did not know a "constitution", a separation of powers or human rights? How was different Japanese law from Chinese and/or Korean ones? What kind of law was applied to "international" relations in this period?

2. How the Modern Japanese Law Was Moulded

It is often alleged that Japan is the most striking example of a non-European

State that successfully incorporated the European legal system. In which sense is this allegation correct (or wrong)?

3. Post-WWII Constitution and Legal System

How is the Japanese Government organized according to the current Constitution? Can we find any particularities in the Japanese form of the separation of powers? Does law really rule in today's Japanese society?

4. Japan's International Relations from a Legal Perspective

Is Japan's attitude towards international law different from other countries? What are most touchy international law issues that Japan faces today? Territorial disputes? Whaling? FTAs? War Compensation?

3. Business Law in Japan

This part of the course gives a lecture on business law in Japan, especially contract law, corporate law, intellectual property law, and international civil litigation.

Topics

1. Contract Law in Japan

This class offers a lecture about basic rules relating to contracts that are prescribed in the Civil Code.

2. Corporate Law in Japan

This class deals with the Japanese company system. In 2006, the Companies Act came into effect.

3. Intellectual Property Law in Japan

This class gives a lecture about the way information goods are protected, focused on patent law and copyright law.

4. International Civil Litigation

This class offers a lecture about standards for determining international adjudicatory jurisdiction in Japanese international litigation.

11. Life Science II

Themes

1. Finding of genetic materials

2. Structure of DNA
3. Replication of DNA
4. Recombinant DNA technology
5. Structure of gene
6. Transcription and translation
7. Protein structure
8. Protein synthesis and transport
9. Genome structure in eukaryotes
10. Genome structure in prokaryotes
11. Examples of experiments in molecular and cell biology
12. Single-molecule techniques in molecular and cell biology
13. Paper discussion and examination

Course Overview

This course is designed to understand what is life at the molecular and cellular level. Special emphases will be on the biologists' way of thinking as well as the basic concepts on the gene structure and function.

1. Logic and basic concepts in biology : How does biologist do and what does biologist know?
2. Methods in biology : What kinds of technique does biologist employ?
3. Specific topics deal with the cell structure and function, the nucleus and central dogma
4. Basics of recombinant DNA technology will be covered

This will be a lecture/discussion course that will be also a distance-learning course between Kyoto university and the National Taiwan University. The number of students in the class is limited to 30-40.

The students will be given 2-3 scientific papers to read.

12. Energy and Resources II

Themes

1. Energy Conversion Technology and Suppression of Global Warming
2. Materials Technology for Saving of Energy and Resources
3. Fuel Cell Technology and Related Issues

Course Overview

1. Efficiency of energy conversion systems will be discussed and discussion will be extended to how the exhaust of carbon-dioxide can be reduced with the advanced energy conversion system. Some overviews will be developed on other types of energy conversion system which will minimize the exhaustion of greenhouse gases in industrial, commercial and transportation sectors.
2. Simultaneous pursuit of energy and resources saving and sustainable development is one of critical issues. The lectures will cover materials science and engineering for solution of energy and resources saving and sustainable development. In particular, recycling, materials selection and low-weight metals will be focused on.
3. Fuel cell is a device that "directly" converts the chemical energy of a fuel into electrical energy. With its high theoretical efficiency, it is regarded as one of the prospective power generation systems to reduce the waste of energy, emission of pollutants and carbon-dioxide. There are several different fuel cell types at various stages of development. This lecture is an introduction to fuel cell technology. Discussions are to be developed on the characteristics of different fuel cell types and their suitability for different applications. Attention is also paid to the fuel preparation as evaluation of fuel cell system greatly depends on how the fuel is produced.