

35650601	○On-site Group Work	2 単位/Unit	春集中/Spring Intensive	京田辺/Kyotanabe	演習/Seminar
	On-site Group Work				
		小山田 英治	林田 明	和田 元	後藤 琢也
		稲岡 恭二	SEIFUDEIN ADEM		

<概要/Course Content Summary >

This course aims at constructing the concept of solution building through the combination of lectures, field visits and group work. Lectures from the angles of both social science and engineering provide basic insight and knowledge in pursuing field visits and group work. Field visits give students the practical experience, while group work, made up of students from different specialties, offers students the platform for sharing ideas, seeking problems and discussing views based on knowledge gained in the class and experience gained on the field.

The field visit for 2023 is scheduled to take place in the Philippines in August, supported by Daikin Industries Ltd, the University of the Philippines and local civil society organizations.

-Students are expected to attend some classes offered by the University of the Philippines featuring political and economic studies, and development management.

-Necessary expenses incurred during the field visit will be covered by the GRM program.

-Prescreening may take place based on individual English competency levels.

<到達目標/Goals,Aims >

1. To understand the importance of multi-disciplinary approaches in problem solving.
2. To obtain basic skills to design a research project.
3. To understand the process in group work and project design.
4. To build interpersonal skills required to work with others.

<授業計画/Schedule >

(実施回 / Week)	(内容/Contents)	(授業時間外の学習 / Assignments)
1	Introduction	Group work preparation
2	Lecture (1) Lecture on cultural diversity, environment, development and others from the view of social science/engineering	Group work preparation
3	Lecture (2) Lecture on cultural diversity, environment, development and others from the view of social science/engineering	Group work preparation
4	Lecture (3) Lecture on cultural diversity, environment, development and others from the view of social science/engineering	Group work preparation
5	Lecture (4) Lecture on cultural diversity, environment, development and others from the view of social science/engineering	Group work preparation
6	Lecture (5) Lecture on cultural diversity, environment, development and others from the view of social science/engineering	Group work preparation
7	Lecture (6) Preparation for project design	Group work preparation
8	Lecture (7) Preparation for project design/science/engineering	Group work preparation
9	Site visit, lecture and discussion (Manila/Philippines)	Group work preparation
10	Site visit, lecture and discussion (Manila/Philippines)	Group work preparation
11	Site visit, lecture and discussion (Manila/Philippines)	Group work preparation
12	Site visit, lecture and discussion (Los Banos/Philippines)	Group work preparation
13	Site visit, lecture and discussion (Los Banos/Philippines)	Group work preparation

14	Site visit, lecture and discussion (Los Banos/Philippines)	Group work preparation
15	Final presentation (Philippines)	Group work presentation

An orientation will be given during the first lecture in the third week (from 10th to 14th) of April. The time, place, etc. will be separately notified to registrants.

Course consists of on-line, face-to-face, and on-site. Intensive classes and field visit will be scheduled in August. Detailed schedule will be announced before May.

<成績評価基準/Evaluation Criteria >

Attendance and contribution 35%

Mid-term presentation 10%

Final presentation 25%

Final report 30%

<備考/Remarks >

The maximum number of students for this course is 10.

For further inquiries, please contact the GRM office.

35650611

OResource Management for Coexistence and Cultural Diversity

2 単位/Unit 春学期/Spring インターネット/Internet 講義/Lecture

Resource Management for Coexistence and Cultural Diversity

稲葉 稔	小山田 英治	赤尾 聡史	林田 明
長岡 直人	和田 元	千田 二郎	八木 匡
濱 真一郎			

<概要/Course Content Summary >

A term “resource” is often referred to natural resources, such as water, coal, petroleum, trees, etc. However, as often saying “human resource”, the use of term “resource” is not limited to natural resources. We consider that the applicability of term “resource” spreads in very wide range thus it is a useful concept to connect different study areas. There are many conflicts, from very tiny ones to that of global scale, that prevent people live together peacefully in the world. We can consider that many of those conflicts are caused by the insufficiency or inefficient distribution of “resources”. So, proper management or development of “resources” could help to solve these problems. In this course, students will learn the interpretation of “resource” and how we can translate problems with this concept. Lectures will be delivered by all different professors in each time and explain how the concept of “resource” can be adapted in each field. Lectures will also explain how the proper management of “resources” could contribute to solve problems of their field.

The course is delivered with the relayed lecture style in order to cover wide range of topics: both social and natural science. We believe that the concept of “resource” that we define could be applicable very wide range, but due to the limitation of faculty members, the course provides some lectures from electrical engineering, environmental science, informational science, water resource engineering, economics, political science, and public policies.

<到達目標/Goals,Aims >

1. To understand the concept of “resource” in the global resource management program
2. To realize the concept of “resource” can apply to wide area
3. To realize proper management of “resource” reduces the risk of conflict

<授業計画/Schedule >

(実施回 / (内容/Contents) Week)		(授業時間外の学習/ Assignments)
1	導入：資源とは何か [林田] Natural resources: Definition, Types and Examples [Hayashida]	Class assignment
2	資源と開発 [小山田] Natural Resource and Development [Oyamada]	Class assignment
3	発電と送配電 [長岡] Power generation and transmission [Nagaoka]	Class assignment
4	エネルギー資源とスマートグリッド [千田] Energy resources and smart grid [Senda]	Class assignment
5	水処理と再利用 [赤尾] Water treatment and reuse [Akao]	Class assignment
6	化石燃料から水素エネルギー社会まで [稲葉] Energy resources - from fossil fuels to hydrogen economy [Inaba]	Class assignment
7	資源としての自然・人工環境と科学技術の役割 [和田] Roles of science and technology on natural/artificial environments as resources [Wada]	Class assignment
8	イノベーションと社会構造改革 [和田] Innovation and evolution of social systems [Wada]	Class assignment
9	正義と自由 1 [濱] Justice and liberty 1 [Hama]	Class assignment
10	正義と自由 2 [濱] Justice and liberty 2 [Hama]	Class assignment
11	人間性とコミュニティに基づく創造性 [八木] Creativity based on humanity and community [Yagi]	Class assignment
12	SDGs のための政策 [八木] Policies for sustainable development goals [Yagi]	Class assignment

13	向社会性とビジネス [八木] Pro-sociality and business [Yagi]	Class assignment
14	地球温暖化と気候正義 [林田] Global warming and climate justice [Hayashida]	Class assignment
15	総括 Wrap-up	Class assignment

Lectures are given via Teams or Zoom online system. The schedule may be subject to changes and/or revisions.
受講生の構成や講義テーマに応じて、日本語で解説を行うことがある。

This course is held in the 2nd period on Sat.
この授業は基本的に土曜 2 講時に実施します。

<成績評価基準/Evaluation Criteria >

Attendance 50%

Class contributions (questions/comments) are also positively evaluated.

Assignments 50%

Prepare reports for several topics.

Each lecturer gives assignment to students during the class. Follow the instruction of each lecturer.

35650621

○Mathematics and Physics as Liberal Arts

2 単位/Unit 春学期/Spring

インターネット/Internet 講義/Lecture

Mathematics and Physics as Liberal Arts

和田 元

CAMILLE-FAITH PASCUA ROMERO

<概要/Course Content Summary >

The course aims at giving students enough knowledge in physics to understand artificial social infrastructure and natural environment. It puts particular emphasis on electrical energy explaining how electrical power is generated, transported, distributed and utilized by people. Demonstration employing small scale models of electrical generators, fluid machines and motors should enhance students' understanding of energy conversion. Simple mathematical formulations of fundamental physics rules are given, but the course does not necessarily require high mathematical skills and abilities of students.

<到達目標/Goals,Aims >

Students will be able to calculate figures and quantities necessary for resource management

<授業計画/Schedule >

(実施回 / (内容/Contents)

(授業時間外の学習/Assignments)

Week)

1	Introduction: physical quantities	Review high school mathematics
2	Forms of energy: heat and electricity	Homework on heat transport
3	Transport of energy: wave	Homework on finding examples of wave propagation
4	Electricity and magnetism: inverse-square law	Homework on leaf electrometer
5	Electricity and magnetism: magnets and coils	Homework on drawing magnetic field lines of force
6	Electricity generation: electric motors and generators	Homework on assembling a miniature motor
7	Source of energy: combustion	Homework on assembling a miniature engine
8	Source of energy: gravity	Homework on measuring time interval of a pendulum
9	Source of energy: fluid	Homework on measuring wind energy
10	Source of energy: solar	Homework on solar cell experiment
11	Source of energy: nuclear	Summarize opinion on utilizing nuclear power
12	Fundamental equations: Newtons law	Review differential and integration operations
13	Fundamental equations: Maxwell's equation	Review expression using differential operators
14	Physics for resource management: mining	Write up a short summary on fuel processing
15	General discussion	Prepare for the final term report

Contents will be open on the e-class.

This course is held in the 2nd period on Thu.

<成績評価基準/Evaluation Criteria >

Attendance 20%

Students have to attend all classes

Class contribution (questions and comments) 20%

Good questions are highly evaluated.

Homework 20%

One page summary of experiments

Final term paper 40%

Simulation of resource management

Qualitative evaluation of resources is essential and the ability to estimate necessary amounts of resources will be tested. Evaluation may change based upon students' understanding.

<テキスト/Textbook >

Handouts will be provided in every class

<備考/Remarks >

Depending upon the epidemic condition, some classes may be opened through web.

35650622 △Infrastructure Design for Human Communities
2 単位/Unit 秋学期/Fall インターネット/Internet 講義/Lecture
Infrastructure Design for Human Communities
和田 元 CAMILLE-FAITH PASCUA ROMERO

<概要/Course Content Summary >

Infrastructure is the foundation of any kind of activities of human community. It provides protections to citizens and assign social resources at the occasion of natural disasters. Distribution of food, commodities, energy, work force, information, etc., such kinds of resources used in the human society are arranged through infrastructure. Thus, knowledge on how these components of infrastructure are integrated provides a viewpoint indispensable to make further study on resource management for non-engineering major graduate students. The aim of this course is to construct the foundation for non-engineering students to make further study on resource management with the way of thinking similar to engineers. As a basic level course, this course puts more emphasis on how to understand the logics and basic methodologies required for planning and designing of infrastructures, rather than obtaining individual knowledge. Tools that engineers are using for this purpose include mathematics, physics, and statistics. Therefore, basics of these subjects will be also taught in the class. The course puts more emphasis on actually solving problems, rather than just memorizing formulae, for a student to obtain some idea of thinking as an engineer.

<到達目標/Goals,Aims >

This course will let students understand the engineering procedure when engineers design some of infrastructural works. The goal of this course is, therefore, to make students to find some of the engineers' way of thinking through actually solving design problems, rather than to make them capable of deducing a correct answer in individual calculation.

<授業計画/Schedule >

(実施回 / (内容/Contents) Week)	(授業時間外の学習/Assignments)
1 Environment and infrastructure	Review class material
2 Physics and chemistry	Homework #1
3 Physics and engineering	Review class material
4 Introduction to civil engineering	Homework #2
5 Introduction to electrical engineering	Review class material
6 Energy supply, distribution and consumption	Homework #3
7 Communication technology	Review class material
8 Water supply and management	Prepare a mid-term report
9 Necessary function of a city	Mid-term report
10 Design of city transport	Review class material
11 Design of inter-city transport	Homework #4
12 Preparation against natural disaster	Review class material
13 Basics of statistics	Homework #5
14 Finding design conditions	Review class material
15 Project planning	Prepare a final term report

This course is held in the 2nd period on Fri.

<成績評価基準/Evaluation Criteria >

Homework 50%
 Submit five sets of homework
Mid-term report 15%
 Include quantitative analysis
Final term report 15%
 Highlight engineers' view point
Attendance 20%
 Some classes may be opened via web

<備考/Remarks >

Some classes may be opened via web depending upon the condition of epidemic.

35650623

△Environmental Earth Science as Liberal Arts

2 単位/Unit 秋集中/Fall Intensive

今出川/Imadegawa 講義/Lecture

Environmental Earth Science as Liberal Arts

林田 明

<概要/Course Content Summary >

This course introduces graduate students, regardless of their background, to scientific perspectives on environmental systems of the earth. After studying fundamental concepts in earth surface processes, we explore how geological and geophysical processes have shaped the earth's environments and natural resources. We also examine topography and environments of particular regions through field observations in Kyoto City and computer-based practice of remote sensing data analysis.

<到達目標/Goals,Aims >

The objective of this class is to develop a better understanding of formation of the earth's surface environment and natural resources from viewpoints of geology and geomorphology. Students should gain an appreciation for the complexity and uniqueness of terrestrial environment and natural resources.

<授業計画/Schedule >

(実施回 / Week)	(内容/Contents)	(授業時間外の学習/Assignments)
1	Introduction	Review of geologic timescale
2	Climate system	Review of related articles
3	Climate change	Review of related articles
4	Gglobal warming	Review of related articles
5	Plate tectonics	Review of related articles
6	Risk of earthquakes	Review of related articles
7	Tsunami hazards	Review of related articles
8	Water resources	Review of related articles
9	Topography and geology of Kyoto: a case study	Review of related articles
10	Field observation (1)	Preparation of the field report
11	Field observation (2)	Preparation of the field report
12	Introduction to remote sensing	Review of related articles
13	Computer-based practice	Preparation of the analysis report
14	Computer-based practice	Preparation of the analysis report
15	Summary	Review of the course

This class is provided as an intensive course, not necessarily on a weekly basis. The schedule will be organized in the first week of the fall semester.

For any student who feels difficulty in the field observations based on the impact of disability, reasonable accommodations will be considered on a case-by-case basis.

受講生の構成や講義テーマに応じて、日本語で解説を行うことがある。

<成績評価基準/Evaluation Criteria >

Attendance and participation 40%

Contribution to class discussion

Homework 30%

Report of computer-based practice

End-of-term report 30%

Understanding of the lecture topics

<参考文献/Reference Book >

Tarback, E. J. and F. K. Lutgens, "Earth Science", 13th or later.(Pearson Education, 2013 or later). ISBN:13-978-1292020853

35650631

○Global Resource Management and International Relations

2 単位/Unit 春学期/Spring インターネット/Internet 講義/Lecture

Global Resource Management and International Relations

SEIFUDEIN ADEM

<概要/Course Content Summary >

This course reviews contending theories of International Relations (IR) by scrutinizing the basic concepts of each theory, its core, and auxiliary propositions, and its underlying assumptions. The course also applies each theory to contemporary history.

<到達目標/Goals,Aims >

By the end of the semester, students will have familiarized themselves with IR theories, learned how they are applied to real-world events and processes, and developed the critical thinking skills necessary for evaluating the comparative degree of usefulness of each and the level of their plausibility in different contexts.

<授業計画/Schedule >

(実施回 / (内容/Contents) Week)	(授業時間外の学習/Assignments)
1 Introduction	Reading
2 Previewing IR theories	Reading
3 Comparing IR theories	Reading
4 Realism (I)	Reading
5 Realism (II)	Reading
6 Liberalism (I)	Reading
7 Liberalism (II)	Reading
8 Post-Positivist theories	Reading
9 IR of the Global South (I)	Reading
10 IR of the Global South (II)	Reading
11 Applying IR theories (II)	Reading
12 Applying IR theories (III)	Reading
13 US and China	Reading
14 Japan and China	Reading
15 Review and summary	Reading

This schedule may be minimally modified in consultation with the students.

This course is held in the 1st period on Mon.

<成績評価基準/Evaluation Criteria >

Attendance 20%

Report 50%

Contributions to discussions 30%

<テキスト/Textbook >

Jennifer Sterling-Folker, *Making Sense of International Relations*, 2nd Edition.(Lynne Rienner, 2013).

<参考文献/Reference Book >

Seifudein Adem, *Postcolonial Constructivism* (Palgrave Macmillan, 2021).

35650632 △Research Methods of Social Sciences
2 単位/Unit 秋学期/Fall インターネット/Internet 講義/Lecture
Research Methods of Social Sciences
SEIFUDEIN ADEM

<概要/Course Content Summary >

Theoretical perspectives about the social sciences had for long viewed cultures and civilizations through a vertical divide—as stratified and hierarchical. Culture had been thus marginalized as an important variable for understanding relations between societies. But after the end of the Cold War the role of culture and identity in global affairs has begun to re-capture the attention of many. We join the growing intellectual trend by highlighting the relevance of cultural forces for a deeper understanding of the dynamics within societies and the relationships among them.

<到達目標/Goals,Aims >

In this course, we will explore the utility of the cultural approach for deepening our understanding of the relationship between societies in addition to (rather than instead of) the scientific approach. By the end of the course, students will have acquired adequate knowledge to identify the defining features, merits, and demerits of both approaches. They will also have understood more fully the role of cultural forces in global affairs. The course is reading-intensive and supported by relevant documentaries.

<授業計画/Schedule >

(実施回 / (内容/Contents) Week)		(授業時間外の学習/ Assignments)
1	On the scientific method	Reading
2	Can we study society scientifically?	Reading
3	On cultural approach	Reading
4	Scientific method versus cultural approach	Reading
5	The role of religion in international relations	Reading
6	On historical approach	Reading
7	The role of language in international relations	Reading
8	The role of ethnicity and race in international relations	Reading
9	Culture and dialogues of civilizations	Reading
10	Culture and clash of civilizations	Reading
11	Culture and comparative warfare	Reading
12	Culture and comparative democratization	Reading
13	Culture and comparative modernization	Reading
14	Culture and globalization	Reading
15	Review and summary	Reading

The above schedule may be minimally modified in consultation with the students.

This course is held in the 6th period on Tue.

<成績評価基準/Evaluation Criteria >

Class participation 20%
Report 50%
Presentation 30%

Students will be required to write a report on a topic of their choice but related to the broader theme of the course and make presentations in class. The instructor will provide constructive feedback orally and/or in writing.

<テキスト/Textbook >

Ali Mazrui, *World Federation of Cultures* (The Free Press, 1976).
David H. Fischer, *Historians' Fallacies* (Harper & Row, 1970).

<参考文献/Reference Book >

R N. Lebow, *Cultural Theory of International Relations* (Cambridge U. P.).

Seifudein Adem, *Postcolonial Constructivism* (Palgrave Macmillan).

In addition to the above books, other materials (available to the students in advance) will be used for further guidance and stimulation.

<参照 URL/URL >

<https://www.youtube.com/channel/UCHI79pr4JaYbYBJSY5-A-iA/videos> The Africans. BBC/PBS Documentary

35650633 △Global Society in the Modern World
2 単位/Unit 秋集中/Fall Intensive インターネット/Internet 講義/Lecture
Global Society in the Modern World

小山田 英治

<概要/Course Content Summary >

It is over 25 years since the word “globalization” has been established. To begin with, what is globalization? What are the reasons behind pursuing globalization? How has this changed the world? This course will look at the global issues of today (gap between the rich and poor, migration across national borders, religious and cultural coexistence, refugees, human security and others), examine the causes and impact of these issues, and find possible measures. Furthermore, in-depth understanding on key perspectives needed in the study of global issues will be gained. While developing knowledge through actual case studies and insights from practitioners, analysis of corrective measures will be done.

<到達目標/Goals,Aims >

The goal of this degree program is to offer guidance and support to each student's individual research theme and methodology through academic studies on the approach to addressing global issues and understanding the need for key perspectives in global studies.

<授業計画/Schedule >

(実施回 / (内容/Contents) Week)	(授業時間外の学習/Assignments)
第1回 Orientation session	
第2回 Observation of various global issues (I)	Instruction will be given during the class
第3回 Observation of various global issues (II)	Instruction will be given during the class
第4回 Global governance	Instruction will be given during the class
第5回 Population and migration	Instruction will be given during the class
第6回 Religion and inter-cultural issues	Instruction will be given during the class
第7回 Development and Rich-Poor gap)	Instruction will be given during the class
第8回 Environment/energy/food	Instruction will be given during the class
第9回 Case studies I (poverty and development)	Instruction will be given during the class
第10回 Case studies II (role of government, civil society and company in promoting global governance)	Instruction will be given during the class
第11回 Case studies III (religion and harmonious coexistence)	Instruction will be given during the class
第12回 Case studies IV (human rights)	Instruction will be given during the class
第13回 Group discussion I	Instruction will be given during the class
第14回 Group discussion II	Instruction will be given during the class
第15回 Wrap up session	Instruction will be given during the class

This course is an intensive course

<成績評価基準/Evaluation Criteria >

Class attendance, participation, etc 50%
Short reports 20%
Presentation 30%

<テキスト/Textbook >

適宜資料を配付

<参考文献/Reference Book >

Handout sheet will be distributed per class

<備考/Remarks >

35650642 OGRM Topics 2 (Topics in Mathematics for Information and Data Sciences)
 2 単位/Unit 春集中/Spring Intensive 今出川/Imadegawa 講義/Lecture
 GRM Topics 2 (Topics in Mathematics for Information and Data Sciences)
 徳山 豪

<概要/Course Content Summary >

Learn how mathematics is used to develop information technology and data science. The lecturer will talk his own experiences in his career, give some puzzles, and solve problems together in the class to understand how mathematics is useful in real life.

Mathematical knowledge is not required, but students are suggested to study (say, search wikipedia) about the topics given in the lectures after each lecture to have deeper understanding. Students are requested to write short report of their study.

<到達目標/Goals,Aims >

Be interested in mathematical tools in data science, and learn some famous concepts in computer science and data science.

<授業計画/Schedule >

(実施回 / 内容/Contents) Week)	(授業時間外の学習/Assignments)
1 Introduction: History & puzzles on mathematics and data science	Review
2 Making money using statistics	Review
3 "Let's make a deal"	Study about basic statistics
4 Set Theory in Data Science & Pigeon hole principle	Short report
5 Finding needle in haystack	Study about web searching
6 Graphs,trees, and information	Study about graphs and trees
7 How Google started	Short report
8 Dream of secure communication	Review
9 Prime number & Fermat's little theorem	Study about cryptography
10 Why Bitcoin is secure	Short report
11 Buffon's needle and applications	Study about probability
12 Birthday and Xmas problems	Review
13 Information hiding and coding	Short report
14 Car navigation and DNA	Study about algorithms
15 Algorithms and complexity	Short essay

This is the first year to give this course. Therefore, the topics and their ordering are subject to change observing the background, interest, and level of understanding of students.

The lecturer is a non-native English speaker, and he only speaks "Janglish" (Japanese dialect of English). On the positive side, he can tell how to survive in the international academy using Janglish. He may also use some Japanese to help understanding of Japanese students, and please do not complain about it.

【Schedule】

The intensive course will be held in the 1st-5th period on Jul.24(Mon), 25(Tue), and 26(Wed).

<成績評価基準/Evaluation Criteria >

Reports 15*5%
 level of Understanding
 Essay 25%
 Quality

Although students need to work on some mathematical problems, mathematical skill/talent is not necessary to get the grade.

<テキスト/Textbook >

Texts will be uploaded on my web page or onedrive.

<参考文献/Reference Book >

John MacCormick, *9 Algorithms That Changed the Future* (Princeton U, Press, 2012).

徳山豪『工学基礎 離散数学とその応用 第二版』（数理工学社, 2022）

Peter Winkler, *Mathematical Puzzles: A Connoisseur's Collection* (CRC, 2017).

Advanced reading:

Rajeev Motwani and Prabhakar Raghavan, *Randomized Algorithms*, Cambridge University Press, 1995.

Peter Winkler, *Mathematical Puzzles: A Connoisseur's Collection* (AK Peters/CRC Recreational Mathematics Series, 2017)

徳山豪 オンラインアルゴリズムとストリームアルゴリズム 共立出版 2007

赤石雅典 Python で儲かる AI を作る 日経 BP 2020

35650651

△Seminar for Advanced Liberal Arts

2 単位/Unit 秋集中/Fall Intensive

今出川/Imadegawa 演習/Seminar

Seminar for Advanced Liberal Arts

内藤 正典 SEIFUDEIN ADEM

<概要/Course Content Summary >

This seminar will be a wrap-up for students who have taken GRM-related courses. In addition, consider about contemporary issues surrounding society and explore how to solve them.

In this seminar, special lectures will be given by distinguished visiting professors.

<到達目標/Goals,Aims >

The goal of this seminar is for the students to evaluate the results of taking GRM-related courses by themselves.

<授業計画/Schedule >

(実施回/Week)	(内容/Contents)
1 (5th period, Oct 4)	Introduction
2 (5th period, Oct 25)	Special lecture 1
3 (6th period, Oct 25)	Special lecture 1 (continued)
4 (7th period, Oct 25)	Special lecture 1 (wrap-up seminar)
5 (5th period, Nov 8)	Special lecture 2
6 (6th period, Nov 8)	Special lecture 2 (continued)
7 (7th period, Nov 8)	Special lecture 2 (wrap-up seminar)
8 (5th period, Nov 22)	Special lecture 3
9 (5th period, Dec 6)	Special lecture 3 (continued)
10 (6th period, Dec 6)	Special lecture 3 (wrap-up seminar)
11 (5th period, Dec 20)	Special lecture 4
12 (6th period, Dec 20)	Special lecture 4 (continued)
13 (7th period, Dec 20)	Special lecture 4 (wrap-up seminar)
14 (5th period, Jan 10)	Wrap-up seminar 1
15 (5th period, Jan 17)	Wrap-up seminar 2

A detailed schedule of the special lectures will be announced in the first class.

The first class (Introduction) will be on October 4, 5th period.

<成績評価基準/Evaluation Criteria >

平常点(クラス参加、グループ作業の成果等) 50%

授業内評価 50%