Course title	Advanced Technology in Emerging Fields: Environment & Energy 1	Group	
Academic year		Updated	
Academic unit or major		Offered quarter	
Instructor(s)	Koji Tokimatsu, Fumitake Takahashi, Cross Jeffrey Scott, Kunio Yoshikawa, Masahiko Hara	Course component(s)	
Registration number	TBA	Course number	TBA
Language used	English	Credits	1-0-0
Day/Period	Intensive	Room No.	TBA

Course description and aims

In this course, students can learn Japanese experiences and situation of energy and environment, specifically Japanese energy polocy and waste management. Lectures will be provided by faculties within and outside of our university, regarding to technological and socio-economic aspects. The goal of this course is to learn Japanese efforts on management in energy and environment and to make presentation compared with students' home countries, through the classes and one time facility visit in power sector and in local government.

Student learning outcomes

The students can
- understand the Japanese efforts on energy and environmental management
- make a proposal to policy makers in their home countries by comparing with the Japanese efforts.

Keywords

waste management, energy and environmental technology, socio-economics and policy

Competencies that will be developed

Intercultural skills	Communication skills	Specialist skills	Critical thinking skills	Practical and/or problem-solving skills
		✔		✔

Class flow

In the first four classes, we will focus on waste management and Japanese energy strategy, both technology and policy sides, then go to site visit to understand actual activities by both a private company in power sector and a local government in waste treatment. Finally students make presentations on the policy suggestions to their own countries, comparing with the Japanese efforts.

Course schedule		Required learning
Class 1	Lecture on overview of Japanese policies in energy and energy-related environment	
Class 2	Lecture on waste management technology in materials; from value adding to trash box designing (tentative)	
Class 3	Lecture on overview of Japanese policies in energy and energy-related environment (2)	
Class 4	Lecture on countermeasures by socio-economics and policy for waste management in Japan	
Class 5	The site visits; a high-efficiency fossil-fired power plant and a waste management facility	
Class 6	Presentation from students; make a proposal to policy makers for your own country regarding to energy and environmental technologies and policies, after learning the Japanese efforts.	
Class 7	Presentation from students; make a proposal to policy makers for your own country regarding to energy and environmental technologies and policies, after learning the Japanese efforts. (2)	

Textbook(s)
None
Reference books, course materials, etc.
Hand out, materials will be distributed as needed. * Economics of Waste Management in East Asia (Yamamoto and Hosoda, eds)
Assessment criteria and methods
(1) Evaluation will be based on a reporting assignment or the quiz which is assigned during the classes; 70% (7 classess X 10 points/class) (2) final presentation; 30%
Related courses
GEG.E404 Technologies for Energy and Resource Utilization GEG.T413 Basic Behaviormetrics: Theory and Methods ENR.B501 Special lectures on energy economics and policy GEG.E421 Energy and Environment -1 ENR.B437 Energy and Environment -1
Prerequisites (i.e., required knowledge, skills, courses, etc.)
basic English communication
Contact information (e-mail and phone)
TOKIMATSU, Koji tokimatsu.k.ac@m.titech.ac.jp, +81-45-924-5533
Office hours
make an appointment by email, office is located in rm# 605, G5 bildg., Suzukakedai

Course title	Advanced Technology in Emerging Fields: Environment & Energy 2	Group	
Academic year		Updated	
Academic unit or major		Offered quarter	
Instructor(s)	Manabu Ihara, Shuichiro Hirai, Kazuhiko Maeda, Akira Yamada,Takeo Yamaguchi, Ryoji Kanno, Hidetoshi Matsumoto, Keiko Waki, Tetsuo Kodera, Shinsuke Miyajima, Masahiko Hara	Course component(s)	
Registration number	TBA	Course number	TBA
Language used	English	Credits	2-0-0
Day/Period	Intensive	Room No.	

Course description and aims

This course mainly focuses on understanding recent energy technologies, such as fuel cells, solar cells, butteries, supercapacitor, photocatalyst and energy system. All class are arranged to understand the students who do not have special knowledge of each energy technology. The course intend to make the students study the recent energy technologies comprehensively with visiting Tokyo Tech Environmental Energy Innovation Building (Energy building).

Student learning outcomes

At the end of this course, students will be able to
:Understand recent energy technologies.

Keywords

solar cells, fuel cells, lithium ion batteries, smart energy system

Competencies that will be developed

Intercultural skills	Communication skills	Specialist skills	Critical thinking skills	Practical and/or problem-solving skills
✔	✔	✔	✔	✔

Class flow

All class are arranged to understand the students who do not have special knowledge of each energy technologies. Taking attendance at every classes. Having the lectures with Tokyo Tech graduate students who are majoring in the Energy Science and Engineering.

Course schedule		Required learning
Class1	Visit of PV building (EEI building) (Prof. Ihara and Assistant Prof. Hasegawa): The development of a smart energy system "ENE-Swallow" will be explained. ENE-swallow, which can efficiently operate various energy devices like solar cells, fuel cells, gas engine, batteries and air conditioners and so on, can make peak cut of electricity in Ookayama campus of Tokyo Tech.	Understand the outline of the class and a smart energy system.
Class2	Polymer electrolyte fuel cell technology (Prof. Shuichiro Hirai): Understand electrochemical system and structure of fuel cell. Recent and future study on fuel cell would be demonstrated.	Understand electro-chemical system and structure of fuel cell.
Class3	Photocatalytic materials for energy production (Prof. Kazuhiko Maeda): Fundamental chemistry of photocatalysis for conversion of light energy into chemical energy will be studied, with a focus on water splitting and CO2 fixation reactions. Several topics in materials developments and reaction mechanism will be given.	Understand chemistry of photocatalysis for light energy conversion in terms of both thermodynamics and kinetics

Class4	High-Efficiency Cu(InGa)Se2 Solar Cells (Prof. Akira Yamada)：After a brief introduction of thin-film solar cells, optical and electrical properties of Cu(InGa)Se2 will be described. The growth and cell fabrication process will be reviewed, and characteristics of Cu(InGa)Se2 solar cells will be summarized.	Understand solar-cell science and technology, and the characteristics of Cu(InGa)Se2 solar cells.
Site visit	JXTG Nippon Oil & Energy Corporation (Prof. Masahiko Hara)	
Class5	Systematic material design for polymer electrolyte fuel cells (Prof. Takeo Yamaguchi)：Polymer electrolyte fuel cells (PEFCs) were commercialized for residential and automobile applications. However, a revolutionary improvement in the materials are essential for development and dissemination of this technology. Global warming issues and the systematic design and developing approaches concerning PEFCs will be discussed.	Understand a basic guideline to design of materials used for PEFCs
Class6	Electrochemical energy storage devices (Prof. Ryoji Kanno)：Fundamental science and developmental technology of electrochemical energy storage devices will be studied. After a brief review of battery science and technology, several topics in Materials developments, Reaction mechanism, and Development of new energy devices will be indicated	Understand battery science and technology and research target for the future devices in order to satisfy the social demands
Site visit	Riken (Prof. Masahiko Hara)	
Class7	One-dimensional (1-D) nanomaterials for energy device applications (Prof. Hidetoshi Matsumoto)：this lecture deals with unique properties of 1-D nanomaterials including nanofibers and their applications for high-functional devices including supercapacitors, secondary batteries, and organic photovoltaics.	Understand the characteristics of 1-D nanomaterials and applications in energy conversion and storage devices.
Class8	Carbon Nanotube materials for the battery application (Prof. Keiko Waki)：Carbon Nanotubes have attracted much attention in lithium battery application. In this lecture, the electrochemical characteristics of Carbon Nanotubes will be introduced and some researches for their application will be reviewed.	Understand the electrochemical characteristics of Carbon Nanotube and the issues for applying the materials to batteries.
Class9	Quantum technologies for energy saving (Prof. Tetsuo Kodera)：This lecture provides the basics of physics and device characteristics of advanced electron devices utilizing quantum technologies, and issues for their applications.	Understand the physics and device characteristics of advanced electron devices utilizing quantum technologies.
Class10	Silicon solar cells (Prof. Shinsuke Miyajima)：This lecture provides the basics of silicon solar cells. The structure, materials and fabrication techniques are outlined in details.	Understand the basics of silicon solar cells.

Textbook(s)

None required.

Reference books, course materials, etc.

Course materials are provided when necessary.

Assessment criteria and methods

Evaluation will be based on a reporting assignment or the quiz which is assigned during the classes.

Related courses

ENR.A401：Interdisciplinary scientific principles of energy 1
ENR.A402：Interdisciplinary scientific principles of energy 2
ENR.A403：Interdisciplinary principles of energy devices 1
ENR.A404：Interdisciplinary principles of energy devices 2
ENR.A405：Interdisciplinary Energy Materials Science 1
ENR.A406：Interdisciplinary Energy Materials Science 2
ENR.A407：Energy system theory

Prerequisites (i.e., required knowledge, skills, courses, etc.)

No prerequisites.

Contact information (e-mail and phone)

Ihara: mihara@chemeng.titech.ac.jp

Course title	Advanced Technology in Emerging Fields 3: Earth Life & Science	Group	
Academic year		Updated	
Academic unit or major		Offered quarter	
Instructor(s)	Ryuhei Nakamura, Shawn McGlynn, Masahiko Hara	Course component(s)	
Registration number	TBA	Course number	TBA
Language used	English	Credits	1-0-0
Day/Period	Intensive	Room No.	TBA

Course description and aims

The movement and organization of matter is intrinsically linked to energy flow. Seen in this light, energy flow can be seen as the primary control on how materials change, how the biology works, and even how the climate works.
Therefor it is critical to develop quantitative understandings of how material and energy flow is related. In this class we will focus on how energy in the form of energy transfer processes can result in material organization in the form of microbial growth.
After gaining insights into fundamental electron processes as they relate to biological systems, we will learn some of the ways that these systems can be studies. Finally, we will discuss natural environments which support surprising electron flow processes, and how these might be related to the origin of life, where life is understood as material organization supported by energy flow.

Student learning outcomes

Students will be able to draw and construct circuit diagrams for electron flow through various cell types.
Students will be able to quantify cells in terms of their energy use and answer the question "how much energy does it take to make a biological cell?"
Students will be able to draw electron pathways as they occur on the planet, and hypothesize if these could exist on another planet.
Students will be able to describe fundamental problems in understanding the origin of life, from the perspective of energy transfer reactions.

Keywords

Bioelectricity, bioenergy, methane oxidation, origin of life, archaea, bacteria, oxidation reduction.

Competencies that will be developed

Intercultural skills	Communication skills	Specialist skills	Critical thinking skills	Practical and/or problem-solving skills
			energetics	complex system problem forumulation

Class flow

Classes will begin by a 45-50 min lecture and be followed by time for students to work on problems and discuss with groups as well as the instructor. Homework may be given, and this will be discussed at the following class period (the one occurring later in the week).
Students are fully expected to participate in class discussions.

Course schedule		Required learning
Class 1	Overview of energy flow in the biological cell, diversity and unity.	Understand the basics of energy flow.
Class 2	Overview of energy flow in fuel cells	Understand the energy flow in various cells.
Class 3	Tools and techniques to quantify energy flow in biology - how much energy does it take to build a cell.	Understand the methdologies to measure the energy flow.
Class 4	How can we measure energy flow by electrons? Where does it occur? What does it mean?	Understand the origins of energy flow by electrons.
Class 5	How can cellular communities become more efficient by sharing electrons?	Understand the cellular communication systems.
Class 6	If life is organized by electron flow, then how could similar flows have led to life's origin?	Understand the elecron flow and origins of life.

Textbook(s)

The instructors will supply reading material.

Reference books, course materials, etc.

Assessment criteria and methods

Students will be assessed by participation in class as well as performance on homework assignments.

Related courses

Prerequisites (i.e., required knowledge, skills, courses, etc.)

Contact information (e-mail and phone)

mcgylnn@elsi.jp, Ph: 03-5734-2189, ryuhei.nakamura@elsi.jp, 03-5734-2182

Office hours

by appointment

Other

Course title	Advanced Technology in Emerging Fields 4: Advanced Materials Science & Engineering	Group	
Academic year		Updated	
Academic unit or major		Offered quarter	
Instructor(s)	Yoshihiro Ito, Koichiro Tachibana, Yasuyuki Yokota, Takanori Shima, Maria Vanessa Balois, Kenji Ono, Masahiko Hara	Course component(s)	
Registration number	TBA	Course number	TBA
Language used	English	Credits	1-0-0
Day/Period	Intensive	Room No.	

Course description and aims

This course is carried out in an omnibus form by research scientists who work at RIKEN which is founded in 1917 and Japan's largest comprehensive research institution renowned for high-quality research in a diverse range of scientific disciplines and is encompassing a network of world-class research centers and institutes across Japan. This course focuses on materials science including organic and inorganic materials. Topics include biomedical polymers, ecological polymers, catalysis, surface chemistry, semiconductor materials, and nanomaterials. Through the lectures, the course enables students to understand and acquire the fundamentals and applications of material sciences.
The interdisciplinary field of materials science involves the discovery and design of new materials from standpoints of chemistry, physics, biotechnology, and engineering. The application field covers all industries. Breakthroughs in materials science are considered to significantly affect the future of science and technology. Students will experience the satisfaction of various materials knowledge acquired through this course.

Student learning outcomes

By the end of this course, students will be able to:
1) Understand the cutting edge biomaterials for medical applications.
2) Understand the sustainable polymeric materials in the view point of green chemistry.
3) Understand electrochemistry based on electric double layer at the liquid/solid interface which is important for developing sophisticated energy devices.
4) Understand the basic knowledge of the organometallic chemistry as well as recent advances such as catalytic organic synthesis, carbon dioxide, dinitrogen fixation reactions, etc.
5) Understand the properties of exotic 2D nanomaterials and their applications to electronic devices
6) Understand quantum electron transport in semiconductor nanodevice.

Keywords

Biomedical polymers, Ecological polymers, Surface electrochemistry, Catalyst, Nanomaterial, Nanodevice.

Competencies that will be developed

Intercultural skills	Communication skills	Specialist skills	Critical thinking skills	Practical and/or problem-solving skills
✔		✔		

Class flow

Each class is carried out in an omnibus form by different scientist. At the beginning of each class, general introduction of each material is reviewed and each specific topic is lectured.

Course schedule		Required learning
Class 1	Introduction of RIKEN and lecuture on biomaterials - Biomaterials for arificial organs, medical drug delivery system, and biochips.	Understand the basic chemistry including organic chmistry, polymer chemistry, and biochemistry
Class 2	Environmental polymer chemistry - Basics of polymer chemistry and recent advances in sustainable polymeric materials such as biodegradable and biobased polymers.	Understand the basic polymer chemistry and sustainable polymeric materials in the view point of green chemistry.
Class 3	Surface electrochemistry - Atomic scale understanding of electrochemistry for future development of sophisticated energy devices.	Understand the basic contents of batteries and electrolysis.
Class 4	Development of new catalysts, new reactions, and new materials	Understand the importance of the molecular catalysts, nitrogen fixation reactions.
Class 5	Site visit to RIKEN laboratories and discussion with researchers in lectures' laboratories.	Understand practical experimental procedures and methodologies
Class 6		
Class 7	2D Nanomaterials - Properties of exotic 2D nanomaterials and their applications to electronic devices	Understand the basic properties of 2D nanomaterials
Class 8	Quantum electron transport in smiconductor nanodevice	Understand single electron transport in semiconductor quantum dot device

Textbook(s)

No textbooks, but the instructors will supply reading material.

Reference books, course materials, etc.

Reference papers and reviews will be provided in classes.

Assessment criteria and methods

Students will be assessed by participation in class as well as performance on homework assignments.

Related courses

None.

Prerequisites (i.e., required knowledge, skills, courses, etc.)

No prerequisites.

Contact information (e-mail and phone)

Prof. Yoshihiro Ito: y-ito@riken.jp

Office hours

by appointment

Other

Course title	Communicating Science and Engineering in Society	Group	―
Academic year		Updated	
Academic unit or majo	Electrical and Electronic Engineering Undergraduate Major	Offered quarter	2Q
Instructor(s)	Naoko Yanagihara	Course component(s)	Exercise
Registration number		Course number	TBA
Language used	English	Credits	0-1-0
Day/Period	Intensive	Room No.	TBA

Course description and aims

Scientists and Engineers increasingly have to understand the foreseen and unforeseen consequences in society of the development knowledge and technology, in addition to communicating research to others outside of their field or level of expertise. In this short project-based course, students work together to understand a current transdisciplinary issue and help communicate it to a group of non-university students to help them do the same. The course is designed to engage students from different cultural, linguistic and disciplinary backgrounds in discussion. In the final session participants communicate their results to non-experts, a task that many will need to do in their future careers.

Student learning outcomes

By the end of this course, students will be able to:
Explain critically about some of the transdisciplinary aspects of science and engineering issues in society today
Understand and explain some of the challenges of communicating these issues to non-experts or those outside of their own discipline
Communicate more clearly with students from other cultures, ages and academic fields
Solve some challenges of communication of socio-technical issues

Keywords

Science communication, transdisciplinary, cross-cultural, public understanding of science and technology, society

Competencies that will be developed

Intercultural skills	Communication skills	Specialist skills	Critical thinking skills	Practical and/or problem-solving
✔	✔		✔	✔

Class flow

At the beginning of each class, solutions to exercise problems that were assigned during the previous class are reviewed. Towards the end of class, students are given exercise problems related to the lecture given that day to solve. To prepare for class, students should read the course schedule section and check what topics will be covered. Required learning should be completed outside of the classroom for preparation and review purposes.

Course schedule		Required learning
Class 1	Introduction to the course and setting themes - Form groups and decide the transdisciplinary issue	Understand the complex nature of socio-technical issues around the globe. Allocate roles of group members.

Class 2	Initial Ideas - Presentations of the initial explanation and suggested solutions to group issues	Explain clearly the issue, suggested solutions and how you will help to communicate this to non-experts
Class 3	Discussing and forming unique responses - Developing responses to group issues involving non-expert members	Engage non-experts into discussion on the issue. Use knowledge learned to develop a unique solution. Reflect on ways to improve communication.
Class 4	Presentations and reflection - Presentations by non-expert group members followed by Q&A and reflection session	Respond to presentations with appropriate questions. Critically evaluate own group's performance and offer advice to others.

Textbook(s)

None.

Reference books, course materials, etc.

Students should examine science and engineering news in their own countries' newspapers and popular science and engineering magazines.

Assessment criteria and methods

Active participation in group activities according to role (30%) Submission of a short video documenting the process (30%), a short reflective comment report (40%)

Related courses

Prerequisites (i.e., required knowledge, skills, courses, etc.)

Ability to communicate and discuss in English.

Contact information (e-mail and phone)

Hope: tomhope@ryu.titech.ac.jp

Office hours

Other

Course title	International Engineering Design Experiences	Group	–
Academic year		Updated	
Academic unit or majo		Offered quarter	
Instructor(s)	Masashi Shirabe	Course component(s)	
Registration number	TBA	Course number	TBA
Language used	English	Credits	2-0-0
Day/Period	Intensive	Room No.	TBA

Course description and aims

In this class, students can learn the basics of design thinking in PBL(Project Based Learning) style.
Students from different backgrounds
form teams. Each team selects a small project and design activities are practiced and presented.
The goals of the class are to learn the basics of design thinking and to exercise implementing them.
.

Student learning outcomes

Students
- understand the basic knowledge and skills of design thinking
- become accustomed to cross-cultural communication
- become cross-culturally aware

Keywords

Design thinking, PBL (project based learning)、Cross cultural awareness

Competencies that will be developed

Intercultural skills	Communication skills	Specialist skills	Critical thinking skills	Practical and/or problem-solving
	✔			✔

Class flow

As collaboration is the main activity, this course is an intensive course of one week.
5 day intensive course
1) products, systems or services to solve an important problem of Japanese society, e.g, aging.
2) products, systems or services based on Japanese technology or cultures
3) products, systems or services targeting the Japanese market

Course schedule		Required learning
Class 1	Ice-breaking, team formation, simple collaboration, lecture on design thinking	
Class 2	Introduction to Japanese society, culture and technology, explanation of problems to tackle in this class, concept designing by team	
Class 3	Selection of a design concept, 2D prototyping, improvement of the design concept	

Class 4	3D prototyping or preparation of demonstration	
Class 5	Finishing operation, preparation of presentation, presentation	

Textbook(s)

N/A

Reference books, course materials, etc.

Hand out, materials as needed

Assessment criteria and methods

(1) participation situation to / attitude to tackle a project (30%)
(2) result of project and its presentation (70%) will be evaluated as a team.

Related courses

ESD.A501：Engineering Design Project A

Prerequisites (i.e., required knowledge, skills, courses, etc.)

Basic English Communication.
Motivations to global teamwork.

Contact information (e-mail and phone)

SHIRABE Masashi shirabe.m.aa@m.titech.ac.jp

Office hours

make an appointment by email.
Office: #409b at No.6 south building

Other

When the number of applicants exceeds 20, we will select 20 of them for this class in consideration of the balance of foreign/domestic participants. When the number of applicants is less than 10, we may cancel this class.

Modern Japan

Academic unit or major	Breadth courses
Instructor(s)	Hara Masahiko
Course component(s)	Lecture
Day/Period(Room No.)	Intensive (すずかけ台, G４棟大会議室)
Group	-
Course number	LAW.X416
Credits	1
Academic year	2017
Offered quarter	2Q
Syllabus updated	2017/5/1
Language used	English

Syllabus

Course description and aims

Japan is regarded as an industrialized country and science-and-technology-oriented nation, however it has many unique characteristics which differ from those of Western-industrialized countries. Selected foreign and Japanese authorities will lecture on how they view contemporary Japan, with special regard to research activities, international collaboration and mobility, and career paths in the various fields of science and technology based on their experiences.

Student learning outcomes

In this course, students will understand and summarize the unique characteristics of research activities and international collaboration now underway in Japan and Asian countries, and will find their own standpoints and career paths.

Keywords

Industrialized
Country, Science-and-Technology-Oriented Nation, International Collaboration,
Global Partnership, Brain Circulation, Talent Mobility, U.S., Europe, and Japan,
Opportunities, Career Paths

Competencies that will be developed

Intercultural skills	Communication skills	Specialist skills	Critical thinking skills	Practical and/or problem-solving skills
✓	✓	-	✓	✓

Class flow

Lectures on basics and present status, discussion on specific topics, and pick-up subjects for reports.

Course schedule/Required learning

	Course schedule	Required learning
Class 1	Global Partnership in Science & Technology and Talent Mobility 1	Understand histories and present status of global partnership in science and technology in Asia
Class 2	Global Partnership in Science & Technology and Talent Mobility 2	Understand and explain present status and future outlook of talent mobility in science and technology in Asia
Class 3	Science and Engineering in the U.S., Europe, and Japan 1	Understand present status of S&T circumstances in US and Europe
Class 4	Science and Engineering in the U.S., Europe, and Japan 2	Understand and explain similarities and differences in S&T between US-Europe and Japan-Asia
Class 5	Opportunities at Japanese Universities 1	Understand present status of S&T circumstances in Japanese universities
Class 6	Opportunities at Japanese Universities 2	Understand and explain similarities and differences in culture and S&T circumstances between Japan and your countries
Class 7	Overview and Outlook of Modern Japan and Asian Countries	Understand overview and outlook of Modern Japan and Asian Countries, and explain your own standpoints, future plans, and career paths

Textbook(s)

TBA

Reference books, course materials, etc.

TBA

Assessment criteria and methods

Evaluate understandings of new viewpoints of international collaboration activities and career paths in the various fields of science and technology.
Final report (50 %) and discussion time (50 %).

Related courses

EEE.Z471 : Seminar for Cultivating International Understanding I
EEE.Z472 : Seminar for Cultivating International Understanding II

Prerequisites (i.e., required knowledge, skills, courses, etc.)

Nothing in particular, but recommend having fundamental knowledges and understand technical terms for science and engineering in English.

Course Title	Survival Japanese 1		
Course description and aims	This course is aimed at first-time learners of the Japanese language. Students will learn the basic of Japanese grammar and vocabulary for everyday situations and become capable of having a conversation. This course also provides some information about Japanese culture and society.		
Student learning outcomes	By the end of this course, students will be able to: ・Understand basic Japanese structure, grammar and vocabulary and will be able to use it on a daily basis. ・Speak in Japanese about daily activities including greetings, self-introduction, words for daily goods, time and place, express opinions and comments using simple sentences.		
Class flow	Students will gain knowledge of basic Japanese language structures and words to promote language proficiency. To prepare for class, students should read the course schedule and check up on new terms. Towards the end of every class, students are given assignments and are expected to turn it in in the next class.		
Class	Unit	Language forcus	Textbook
1	Unit1 Introducing yourself (phrase 1 and 2)	Greetings and numbers(1-10) Self-introduction	p.11-17
2	Unit1 Introducing yourself (phrase 3)	I like…	p.18-23
3	Unit2 Asking for directions	"arimasuka"	
4	Unit3 Shopping (phrase1 and 2)	How much?, numbers (10-10000	p.37-41
5	Unit3 Shopping (phrase 3 and 4)	"- kudasai", adjectives	p.42-50
6	Unit4 Convenience stores and restaurants	"-onegaishimasu"	p.52-57
7	Unit4 Convenience stores and restaurants, Review(Unit1-4)		p.58-66
8	Unit5 Asking permission	"V-temo iidesuka"	p.67-71,74-76
9	Unit6 Making requests	"V-te kudasai"	p.77-89
10	Unit7 Transportation	"doyatte", "donokurai"	p.91-101
11	Unit8 Talking about plans and activities	"V-masho", vebv past tense, "V-tai desu"	9.105-117
12	Unit10 Eating	"how does that lika-?"	p.131-142
13	Unit11 Making a small talk, Unit 12 Invitations (Phrase 1)	"V-masen ka"	p.145-154, p.156-157
14	Review (Unit 5-8 and 10-11), Making a small conversation		
15	Review and examination		
Text books	Ogata Yukiko, Sumitani Kana, Hidari Yasuko and Watanabe Yukiko "NIHONGO FUN & EASY Survival Japanese Conversation for Begginers" ASK, ISBN-13: 978-4872177213, ￥1900+tax		
Related courses	LAJ.T302: Survival Japanese 2		
Prerequisites (i.e., required knowledge,	First time learners of Japanese language. This is an intenisve course for exchange students. Only students who have signed up in advanced are able to register.		