

SYLLABI OF COURSES

For Exchange Students

2018



TOKYO METROPOLITAN UNIVERSITY

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1. Courses offered in English
(1st Semester)

SATOMU Program: Courses Offered in English (1st Semester, Academic Year 2018)

Faculty	Course Title	Original Course Number	SATOMU Course Number	Credit	Lecturer	Semester	Day	Period	Campus	Building	Room	Page#
Faculty of Urban Liberal Arts (4courses)	Japanese Language and Society	X0010	V5101	2	Daniel Long	1st Semester	Mon.	1	Minami-Osawa	6	402	4
	Origins of Modern Japanese Literature Part I	F3633	V5102	2	Michael Yasui	1st Semester	Wed.	3	Minami-Osawa	5	443	5
	Seminar on Multicultural Education	F1246	V5103	2	Hiroyuki Nomoto	1st Semester	Fri.	2	Minami-Osawa	5	137	6
	History of Japanese Film	-	V5104	2	Kentaro Sudoh	1st Semester	Thu.	3	Minami-Osawa	6	307	7
Faculty of Science (14courses)	Ecology	I429	V5105	2	Adam L Cronin	1st Semester	Mon.	2	Minami-Osawa	11	302	8
	General Biochemistry	I385	V5106	2	Hiroyuki Kawahara ·Takashi Okamoto	1st Semester	Tue.	3	Minami-Osawa	11	202	9
	General Developmental Biology	I0421	V5107	2	Kimiko Fukuda·Takatori Naohito	1st Semester	Wed.	5	Minami-Osawa	11	103	10
	General Ecology	I0422	V5108	2	Adam L Cronin	1st Semester	Mon.	5	Minami-Osawa	11	103	11
	General Molecular Biology	I0387	V5109	2	Kanae Ando	1st Semester	Mon.	4	Minami-Osawa	11	202	12
	Cell Biology (General education subject)	X0140	V5110	2	Naohito Takatori·Satomi Takeo	1st Semester	Mon.	6	Minami-Osawa	11	103	13
	Cell Biology (Specialized subject)	I392	V5111	2	Naohito Takator·Satomi Takeo	1st Semester	Wed.	1	Minami-Osawa	11	201	14
	General Biology I B	I0383	V5112	2	Aya Takahashi·Kimiko Fukuda	1st Semester	Tue.	4	Minami-Osawa	11	103	15
	General Taxonomy	I0389	V5113	2	Katsuyuki Eguchi·Noriaki Murakami	1st Semester	Wed.	4	Minami-Osawa	11	103	17
	Molecular Biology	I435	V5114	2	Takashi Okamoto·Tsunaki Asano	1st Semester	Tue.	1	Minami-Osawa	11	201	18
	Special Lecture in Biology a	I434	V5115	1	Yoko Kakugawa	2nd Half of 1st Semester	Thu.	1	Minami-Osawa	11	103	19
	Genetics	I423	V5116	2	Kouichiro Tamura·Aya Takahashi	1st Semester	Fri.	2	Minami-Osawa	11	103	20
	Animal ecology and diversity	X0148	V5117	2	Adam L Cronin	1st Semester	Tue.	6	Minami-Osawa	6	402	21
	Gene Science	I436	V5118	2	Takaomi Sakai·Toshiro Aigaki	1st Semester	Thu.	2	Minami-Osawa	11	101	22
Faculty of Urban Environmental Sciences (1course)	Introduction to Energy Chemistry	K465	V5119	2	Jacob Yan Mulyana	1st Semester	Thu.	1	Minami-Osawa	12	105	23
International Center (6 courses)	Cultural Psychology	-	V5120	2	Shizu Koyanagi	1st Semester	Tue.	2	Minami-Osawa	Int.H	231	24
	Introduction to Japanese Studies I	-	V5121	2	Shizu Koyanagi, Lidia Sasaki et al.	1st Semester	Mon.	2	Minami-Osawa	Int.H	232	26
	Intercultural Communication and Interaction	X0145	V5122	2	Shizu Koyanagi	1st Semester	Wed.	5	Minami-Osawa	1	204	27
	Sustainability Studies and Global Environmental Governance	-	V5123	2	Lidia Sasaki	1st Semester	Fri.	2	Minami-Osawa	Int.H	232	29
	Global Mindset	X0034	V5124	2	Annette Karseras	1st Semester	Tue.	1	Minami-Osawa	6	402	30
	Contemporary Japanese Society I	-	V5125	2	Yoko Kumada	1st Semester	Tue.	4	Minami-Osawa	6	312	32

Course Title		Japanese Language and Society		Course Number	V5101 (X0010)	Credit	2
Instructor	Daniel Long		1st Semester	Mon.	1st Period	Minami-Osawa	
Course Description / Theme		Using the Japanese language as data, we will examine the complex relationships between language and society to answer questions relating to language variation, language behavior, language usage, language change and language policy.					
Knowledge & Abilities students can acquire through the class, Course Objectives		Upon completion of this course, you will have a knowledge of the topics, research methodologies, and theoretical frameworks one uses to study the relationships between language and society. The course should give non-native speakers a better grasp of the intricacies of the language and native Japanese speakers a more objective viewpoint from which to examine their language.					
Course Schedule, Course Contents and Instruction Methods		1. Methods for studying Japanese language and Society 2. How many dialects of Japanese are there? 3. How to be polite in Japanese, and how that differs from politeness in other languages? 4. What do we mean by Women's Language in Japanese, and what about men's language? 5. What are the ways (pronunciation, vocabulary, grammatical formations, etc.) in which Japanese is changing? 6. Within Japanese and Without it: External (Societal) and Internal Factors in Language Change 7. Who speaks the "best Japanese", and why are language attitudes are important? 8. Why can't anyone give me a straight answer about where the Japanese language come from? 9. "Just between us gaijin. . ." Japanese as a world language 10. I heard it through the grapevine. Rumors and Japanese. 11. Why is the Japanese writing system so complicated? 12. Do you spell it "romaji" or "romazi"? Language policy in Japan 13. What's in a "namae"? The studies of people names and place names (toponymy) 14. Signs of the times: learning about Japanese language and society through signs and advertisements 15. Japanese of the future: Applying linguistic science to make predictions about language change					
Learning Activities outside the Classroom		【授業外学習】毎回の授業後、 http://nihongo.hum.tmu.ac.jp/~long/classes.htm で次回授業のレジメ及び予習内容を提示するので、必ず事前に予習を行い、内容を把握した上で授業に臨むこと。 Information about past and upcoming classes will be posted at http://nihongo.hum.tmu.ac.jp/~long/classes.htm and students will be expected to review past lessons and prepare for future topics based on this material.					
Textbooks and/or References		Japanese Sociolinguistics Illustrated（ロング＆真田編『社会言語学図集』秋山書店）All students should bring their own copies of the textbook to every class.					
Grade Evaluation Policy		active class participation final exam					
How to contact the instructor outside the classroom（Office Hours）		Office hours are Monday 10:30 - 12:00 or by appointment. Questions should be addressed to dlong(at mark)tmu.ac.jp					
Notice for Students（Relevance to other courses）		Information about the class will be posted here: http://nihongo.hum.tmu.ac.jp/~long/classes.htm This class is designed to complement the course “The Japanese Language”. They differ in that this class deals with the usage of Japanese in society, while this one with linguistic structure. The courses may be taken independently of one another, but it is highly recommend that students take both for a balanced understanding of the language.					

Course Title		Origins of Modern Japanese Literature Part I		Course Number	V5102 (F3633)	Credit	2
Instructor	Michael Yasui		1st Semester	Wed.	3rd Period	Minami-Osawa Campus	
Course Description / Theme			Discourse and Rhetoric in English through Japanese Literature: Reading about Japanese Literature in English in order to develop debating methods and discuss how ideas in culture translate or fail to translate through language.				
Knowledge & Abilities students can acquire through the class, Course Objectives			In this course, students will learn the basic modes of discussion and debate while developing a more Global Awareness of Japanese Culture through reading and discussing Japanese Literature. Through discussion and debate, the course will explore the concept of neo-Whorfianism: basically how the language one learns to speak affects not only how information is expressed but also what information can be expressed. Students will also develop an sensibility of the origins of Modern Japanese Literature, and then attempt to understand how that translates in a global society.				
Course Schedule, Course Contents and Instruction Methods			1 . Culture, History and Language. 2 . How Language Changes Us : Neo-Whorfianism. 3 . Metaphor#幽玄 and Aesthetics#侘び寂び. 4 . Interiors. (1) Discussion of the Concept. 5 . Interiors. (2) Discussion of Reading One. 6 . Confessions. (1) Discussion of the Concept. 7 . Confessions. (2) Discussions of Reading Two. 8 . Sickness. (1) Discussion of the Concept. 9 . Sickness. (2) Discussion of Reading Three 1 0 . The Child. (1) Discussion of the Concept 1 1 . The Child. (2) Discussion of Reading Four. 1 2 . Violence. (1) Discussion of the Concept. 1 3 . Violence. (2) Discussion of Reading Five. 1 4 . Repetition. (1) Discussion of the Concept. 1 5 . Repetition. (2) Discussion of Reading Six.				
Learning Activities outside the Classroom			During the semester students will be asked to read two or three novels, to conduction lite research activities, and to work with a partner to complete a project,				
Textbooks and/or References			“Origins of Modern Japanese Literature.” By Kojin Karatani and Stanley Fish. 柄谷行人の「定本 日本近代文学の起源」。All students should bring their own copy of the textbook to every class. Additional class materials will be announced throughout the course.				
Grade Evaluation Policy			Participation 30 %, Reading and Research Notebooks 20, Presentation 30 %, Debates 20 %.				
How to contact the instructor outside the classroom (Office Hours)			My office is located in Building 5 in room 513. My office hours will be Tuesday 4 th and 5 th period, or by appointment. My e-mail address is yasui●tmu.ac.jp.				
Notice for Students (Relevance to other courses)							

Course Title	Seminar on Multicultural Education			Course Number	V5103 (F1246)	Credit	2
Instructor	Hiroyuki Nomoto		1st Semester	Fri.	2nd Period	Minami-Osawa Campus	
Course Description / Theme	In this course, English will be used basically as a medium for instruction. Students will analyze collectively the role of education in realizing the society with respect to cultural and ethnic diversity, focusing on second language acquisition, bilingual education, multicultural education or Ainu peoples' education. Students will be required to share the information about multicultural and multiethnic education in USA or New Zealand and recommended to make plan to visit overseas educational institutions.(Option) The exchange activities between foreign students and Japanese students will be placed as a base of this course.						
Knowledge & Abilities students can acquire through the class, Course Objectives	Students will have knowledges and abilities to organize community action and to make policy in order to live in peace with the people having different culture and language. Especially, it focuses on better understanding about educational issues related to foreign children or their language acquisition.						
Course Schedule, Course Contents and Instruction Methods	【Content and method】 This course will analyze community development and educational issues in the community with a high density of foreign residents, and educational practices related to multicultural education, bilingual education and Ainu peoples' education. 【Syllabus Planning】 Detail plan will be discussed by students themselves. 1. Orientation and introduction 2. Regarding multicultural education: problem-posing and discussion 3. Proposal on theme (1) multicultural education 4. Proposal on theme (2) bilingual education 5. Inviting guest speaker about Korean schools in Japan 6. Discussion on Korean schools 7. Report on education for foreign children 8. Report on multicultural education in USA 9. Video on multicultural education 10. Report on international schools 11. The case of Paulo Freire Community School 12. Visit to international school 13. Visit to international school 14. Current situation of Ainu people and education 15. Guest speaker: Ainu people						
Learning Activities outside the Classroom	【Out-of-class learning】 Students will be required to read indicated papers or materials out of class as preparation. Writing some reports will be required						
Textbooks and/or References	Not in particular						
Grade Evaluation Policy	Active class participation Final written report						
How to contact the instructor outside the classroom (Office Hours)	Office hour is set on Wednesday 4th. Students are required to send e-mail to nomoto@tmu.ac.jp before.						
Notice for Students (Relevance to other courses)	Overseas study visit is optional.						

Course Title	History of Japanese Film			Course Number	V5104	Credit	2
Instructor	Kentaro Sudoh	1st Semester	Thurs.	3rd Period	Minami-Osawa Campus		
Course Description / Theme	This course offers an overview of Japanese film history by examining its four main periods: Silent, Classical, New Wave and Contemporary periods. In retracing the film history, students will think critically about the relationship between art and industry, culture and politics, and thought and technology, in the twentieth and twenty-first centuries Japan.						
Knowledge & Abilities students can acquire through the class, Course Objectives	The main goals of the course are: (1) to become familiar with Japanese film history by learning about its social, cultural and historical contexts; (2) to refine one's own sensibility through analyzing films from different periods, genres and styles; (3) to appreciate the complexity of intercultural exchange in cinematic art.						
Course Schedule, Course Contents and Instruction Methods	1. Introduction 2. Silent Period: From Cinématographe to Pure Film Movement 3. <i>I Was Born But...</i> (1932, Ozu Yasujiro) 4. Analysis & Discussion 5. Classical Period (1): Arrival of Talkie 6. Classical Period (2): World War II and Golden Age of Cinema 7. <i>Rashomon</i> (1950, Kurosawa Akira) 8. Analysis & Discussion 9. New Wave Period: Social Transformation and Rise of Independent Cinema 10. <i>Death By Hanging</i> (1968, Oshima Nagisa) 11. Analysis & Discussion 12/ Contemporary Period: From Postmodern to Digital Cinema 13. <i>Tokyo Sonata</i> (2008, Kurosawa Kiyoshi) 14. Analysis & Discussion 15. Conclusion and Final Exam						
Learning Activities outside the Classroom	Students are required to see Japanese films mentioned in class.						
Textbooks and/or References	No textbook is required for this course. However, for a deeper understanding of the subject, students are advised to read: - Donald Richie, <i>A Hundred Years of Japanese Film</i>, Kodansha USA, 2012. - Alistair Phillips, Julian Stringer (eds), <i>Japanese Cinema: Texts and Contexts</i>, Routledge, 2007. - 四方田犬彦『日本映画史 110 年』、集英社新書、2014 年。						
Grade Evaluation Policy	Grading allocation is as follows: - Attendance and active participation: 50% - Final exam: 50%						
How to contact the instructor outside the classroom (Office Hours)	After the class or by appointment via email: kentarosudoh@gmail.com						
Notice for Students (Relevance to other courses)							

Course Title	Ecology			Course Number	V5105 (I429)	Credit	2
Instructor	Adam L Cronin	1st Semester	Mon.	2	Minami-Osawa Campus		
Course Description / Theme	This course takes an integrated approach to explore a range of ecological principals from a behavioural and evolutionary perspective. We will explore how different life-history strategies are the product of environmental, social, and evolutionary context						
Knowledge & Abilities students can acquire through the class, Course Objectives	Through presentation of a wide range of examples and interactive exercises, students will develop and appreciation for the multitude of factors involved in organisms optimising their fitness, and an ability to use this knowledge to infer details of a species' biology through deductive logic.						
Course Schedule, Course Contents and Instruction Methods	1. Ecology, natural selection and behaviour 2. Hypothesis testing 3. Economics and optimisation 4. Evolutionary arms races 5. Competition 6. Living in groups 7. Sexual selection 8. Parental care 9. Mating systems 10. Sex allocation 11. Social behaviour 12. Cooperation 13. Altruism and conflict 14. Review lecture 15. Exam						
Learning Activities outside the Classroom	Students will have access to lecture notes prior to lectures and should download these from kibaco and read them before class. Students will be given occasional tasks to perform outside of class during the semester						
Textbooks and/or References	Lectures will be made available as ppt files on Kibaco, though students are expected to take their own notes during lectures and exercises and should bring materials appropriate to do so. This course will follow the text: An Introduction to Behavioural Ecology (4th ed) by Davies et al (Wiley-Blackwell). Students may also want to consult: Biology, a Global Approach (Campbell et al 10th ed) chapters 51-53.						
Grade Evaluation Policy	Evaluation will be based on exam results, performance in exercises and participation in class discussions.						
How to contact the instructor outside the classroom (Office Hours)	There are not set office hours: please visit my office if you have any questions or send queries by email.						
Notice for Students (Relevance to other courses)	This course is for students with some knowledge in basic ecology and/or evolutionary biology. The course will be conducted entirely in English.						

Course Title	General Biochemistry			Course Number	V5106 (I385)	Credit	2
Instructor	Hiroyuki Kawahara Takashi Okamoto	1st Semester	Tue.	3rd Period	Minami-Osawa Campus		
Course Description / Theme	Biochemistry is the study of life at the molecular level. Various molecules give rise to the properties of entire cells, and we will study these molecules to achieve a basic understanding of how life works. We will begin by investigating fundamental components of the cell: proteins, carbohydrates, lipids. Next we discuss metabolism as it relates to physiology and the concept of energy conservation. We will then focus on protein structure as it relates to enzymatic catalysis. In the later half of this class, we will discuss about machineries that govern gene expression, protein translation and post-translational modifications to control the behavior of proteins.						
Knowledge & Abilities students can acquire through the class, Course Objectives	How does life work? In this class, we'll start trying to understand this question by learning about the molecules and processes that comprise it.						
Course Schedule, Course Contents and Instruction Methods (Tentative)	- Basics in biochemistry - Carbohydrates: Structure and function I - Carbohydrates: Structure and function II - Lipids: Structure and function I - Lipids: Structure and function II - Proteins: Structure and function I - Proteins: Structure and function II - Mid-term exam and summarization - Nucleotides and nucleic acids - Transcription and RNA splicing - Summary of previous classes. Discussion and Tutorial - Translation and protein quality control - Post-translational modification - Summary of previous classes. Discussion and Tutorial - Final exam, review and Q&A						
Learning Activities outside the Classroom	Homework or review quiz will be given after each class.						
Textbooks and/or References	Handout will be provided. Recommended textbook: Campbell, Biology, A Global Approach, 10th edition (Pearson, ISBN 978-1292008653) , Lehninger Biochemistry, 6th edition (W. H. Freeman and company, ISBN 978-1-4292-3414-6).						
Grade Evaluation Policy	Class Attendance/quiz 20%, Mid-term exam 40%, Final exam 40%						
How to contact the instructor outside the classroom (Office Hours)	You can contact lecturer anytime. 8-320, okamoto-takashi@tmu.ac.jp, 9-481b, hkawa@tmu.ac.jp						
Notice for Students (Relevance to other courses)							

Course Title	General Developmental Biology	Course Number	V5107 (10421)	Credit	2
Instructor	Kimiko Fukuda • Takatori Naohito	1st Semester	Wed.	5th Period	Minami-Osawa Campus
Course Description / Theme	A developing embryo begins as a single cell, fertilized egg, becoming more complex with time until it gives rise to a highly organized multicellular animal. In this course, we will focus on the concept of vertebrate development.				
Knowledge & Abilities students can acquire through the class, Course Objectives	Learning goals: Be able to: 1) Give a general description of what development is all about. 2) Explain general principles and basic concepts of development. 3) Understand roles of cells in development.				
Course Schedule, Course Contents and Instruction Methods	Read the textbook and decide “today’s topic” before class. Teach your “today’s topic” to other students in class. Submit “Learning inventory” after class. 1. Introduction to development 2. Basic concepts of development 3. Life cycles of vertebrates 4. Experimental techniques in developmental biology 5. Review discussion and problem solving sessions of 2~4 6. Axes formation 7. Establishment of the germ layers 8. Induction of the early nervous system 9. Somite development. 10. Review discussion and problem solving sessions of 6~9 11. Differentiation of Germ cells 12. Fertilization 13. Sex determination 14. Review discussion and problem solving sessions of 11~14 15. Final exam and discussion				
Learning Activities outside the Classroom	Study of the assigned chapters prior to attendance is mandatory. There will be no “lectures” in the classical sense. Class will be centered on asking questions, discussion and presentation.				
Textbooks and/or References	Principles of Development 5th Edition by Lewis Wolpert, Cheryll Tickle, Alfonso Martinez Arias (Oxford University Press) is used as a textbook. Also, handouts will be given.				
Grade Evaluation Policy	30% will be given to teaching during classes. 20% to after-class inventory. 50% to final exam. Only students who have participated in more than 2/3 of the classes will be allowed to take the final exam.				
How to contact the instructor outside the classroom (Office Hours)	Students can contact Dr. Fukuda (kokko@tmu.ac.jp) or Dr. Takatori (takatori-naohito1@tmu.ac.jp) for personal discussion.				
Notice for Students (Relevance to other courses)					

Course Title	General Ecology			Course Number	V5108 (I0422)	Credit	2
Instructor	Adam L Cronin	1st Semester	Mon.	5th Period	Minami-Osawa Campus		
Course Description / Theme	Ecology is the study of relationships – between organisms and other organisms, and between organisms and their environment. The study of ecology incorporates a wide range of different tools to understand broad-scale and small-scale relationships. In this course we provide an introduction to the field of ecology						
Knowledge & Abilities students can acquire through the class, Course Objectives	This course provides students with an introduction to the study of ecology. This course will establish a knowledge base for more advanced studies in ecology (including Ecosystems and Environments X142). Students will develop an understanding of what ecology is, how ecology can be studied at different levels, and an overview of the wide range of techniques employed in ecology.						
Course Schedule, Course Contents and Instruction Methods	1. What is ecology? 2. Evolution and ecology 3. The abiotic environment: conditions and resources 4. The abiotic environment: climate and the worlds biomes 5. The biotic environment: lifecycles 6. The biotic environment: niches and competition 7. The biotic environment: spatial relationships and dispersal 8. Energy flux 9. Food webs and trophic ecology 10. Patterns in species richness 11. Molecular ecology 12. Biogeography 13. Evolutionary ecology 14. Review lecture 15. Exam						
Learning Activities outside the Classroom	Students will have access to lecture notes before lectures and should download these from kibaco and read them before class. Students will be given occasional tasks to perform outside of class during the semester						
Textbooks and/or References	The recommended text book for this course is Essentials of Ecology by Begon et al (4th ed.) published by Wiley (ISBN: 978-0-470-90913-3). Students may also want to consult Biology: a Global Approach by Campbell et al 10th ed. (ISBN: 978-1-292-00865-3) chapters 51-56.						
Grade Evaluation Policy	This course will be assessed based on results of an exam (80%) and in-class participation (20%).						
How to contact the instructor outside the classroom (Office Hours)	There are not set office hours: please visit my office if you have any questions or send queries by email.						
Notice for Students (Relevance to other courses)	This course will be conducted entirely in English. Students are expected to be able to follow lessons in English and contribute to in-class discussion and question-and-answer sessions.						

Course Title	General Molecular Biology			Course Number	V5109 (10387)	Credit	2
Instructor	Kanae Ando	1st Semester	Mon.	4th Period	Minami-Osawa Campus		
Course Description / Theme	This course is to provide students with the basic principles of genes, heredity, and variation in living organisms.						
Knowledge & Abilities students can acquire through the class, Course Objectives	At the end of this course, students will be able to describe (1) what genes are and what they do, (2) How to analyze DNA, and (3) what can be learned from genetic information. Topics include DNA structure, replication and recombination, molecular mechanisms of mutation and roles of mutation in genetics, and molecular mechanisms of gene expression.						
Course Schedule, Course Contents and Instruction Methods (Tentative)	1. DNA structure 2. DNA replication and recombination 3. Molecular mechanisms of mutation 4. Mutagens induce mutations 5. What mutation tell us about gene function 6. Gene expression: Transcription 7. Gene expression: Translation 8. Review and mid-term exam 9. Digital analysis of DNA 10. Digital analysis of DNA, cont. 11. Analyzing Genomic Information 12. Analyzing Genomic Information, cont. 13. Gene regulation 14. Gene regulation, cont. 15. Review and final exam						
Learning Activities outside the Classroom	Homework or review quiz will be given after each class.						
Textbooks and/or References	Hartwell, et al., Genetics: From Genes to Genomes, 5th Edition. Campbell, Biology, A Global Approach, 10th edition (Pearson ISBN 978-1292008653).						
Grade Evaluation Policy	Class attendance and assignment 30%, Mid-term exam 35%, Final exam 35%						
How to contact the instructor outside the classroom (Office Hours)	Office hour: Wednesday afternoon, 1-2:30pm. Or, e-mail to k_ando@tmu.ac.jp for an appointment.						
Notice for Students (Relevance to other courses)							

Course Title	Cell Biology (General education subject)		Course Number	V5110 (X0140)	Credit	2
Instructor	Naohito Takatori・Satomi Takeo	1st Semester	Mon.	6th Period	Minami-Osawa	
Course Description / Theme	The cell is the fundamental unit of life. This introductory course will provide students with core concepts and definitions in cell biology, which are stepping-stones to more advanced courses in other fields of biology.					
Knowledge & Abilities students can acquire through the class, Course Objectives	At the end of this course, students will be able to describe (1) structure of a cell (2) functions of each organelle and (3) how cells are integrated in multicellular organisms.					
Course Schedule, Course Contents and Instruction Methods	The World of the Cell 1. Introduction to Cells 2. Cells: The Fundamental Unit of Life 3. Chemical Components of Cells 4. Summary of previous classes. Discussion and Tutorial 5. Basic knowledges on DNA 6. Chromosomes: its structure and functions 7. Summary of previous classes. Discussion and Tutorial 8. Review and Mid-term exam 9. DNA Replication 10. DNA Repair 11. DNA Recombination 12. Summary of previous classes. Discussion and Tutorial 13. From DNA to Protein: How Cells Read the Genome 14. Summary of previous classes. Discussion and Tutorial 15. Review and Final exam					
Learning Activities outside the Classroom	Classes will be mainly discussion on each week's topic. Preparation for class (reading of textbooks etc.) will be necessary to productively participate in the class.					
Textbooks and/or References	Powerpoint files and handouts will be distributed. Reference: Becker et al., The World of the Cell. For further reading: Alberts, et al., Essential Cell Biology.					
Grade Evaluation Policy	Participation in discussion 30%, Mid-term exam 35%, Final exam 35%					
How to contact the instructor outside the classroom (Office Hours)	Please schedule appointment prior to visiting the lab. takatori-naohito1[at]tmu.ac.jp change [at] to @					
Notice for Students (Relevance to other courses)						

Course Title	Cell Biology (Specialized subject)	Course Number	V5111 (I392)	Credit	2
Instructor	Naohito Takatori • Satomi Takeo	1st Semester	Wed.	1st Period	Minami-Osawa Campus
Course Description / Theme	This course will provide students with concepts and definitions in cell biology to help understand how cells are organized, with emphasis on intracellular trafficking and signaling mechanism. The first half of the class will be a flipped classroom: students will be given reading/viewing materials before the class and will tackle questions and assignments in the classroom.				
Knowledge & Abilities students can acquire through the class, Course Objectives	At the end of this course, students will be able to describe (1) how cellular components are trafficked, (2) how information flows in the cell, and (3) how cells divide.				
Course Schedule, Course Contents and Instruction Methods	Cellular and Molecular Biology 1. Control of Gene Expression: Regulation of Transcription 2. Control of Gene Expression: Post-transcriptional regulation 3. Summary of previous classes. Discussion and Tutorial 4. How Genes and Genomes Evolve: Mutation and Repair 5. How Genes and Genomes Evolve: Epigenetic factors 6. Modern Recombinant DNA Technology 7. Summary of previous classes. Discussion and Tutorial 8. Mid-term exam 9. The Cell Division Cycle: Regulatory factors 10. The Cell Division Cycle: Mitosis and Meiosis 11. Summary of previous classes. Discussion and Tutorial 12. Sexual Reproduction and the Power of Genetics 13. Cellular Communities: Tissues, Stem Cells and Cancer 14. Summary of previous classes. Discussion and Tutorial 15. Review and Final exam Classes 1-7 will be mostly discussion on each week's topic.				
Learning Activities outside the Classroom	Preparation for class (reading of textbooks etc.) is necessary for discussion of topics during class.				
Textbooks and/or References	Alberts et al., Essential Cell Biology, 4th edition. Textbook is required for preparation for class. For further reading and reference, Alberts et al., Molecular Biology of the Cell, 5th Edition.				
Grade Evaluation Policy	Contribution to discussion during class 30% , Mid-term exam 35%, Final exam 35%				
How to contact the instructor outside the classroom (Office Hours)	Please schedule appointment prior to visiting the lab. takatori-naohito1[at]tmu.ac.jp, or aigaki-toshiro[at]tmu.ac.jp change [at] to @				
Notice for Students (Relevance to other courses)					

Course Title		General Biology I B			Course Number	V5112 (10383)	Credit	2
Instructor	Aya Takahashi • Kimiko Fukuda		1st Semester	Tue.	4th Period	Minami-Osawa Campus		
Course Description / Theme		The cell is the basic unit of life and it is small, fragile and complex. It has evolved about 4 billion years ago, and has changed to the current various appearance. At the beginning of your learning as a freshman in the department of Biological Science, you are expected to understand how the cell lives. For this, you have to understand cell activity at the molecular level based on physics and chemistry. This course will be followed by “General Biology IIB”, which involves basic cell biology, in the second semester.						
Knowledge & Abilities students can acquire through the class, Course Objectives		This class involves basic molecular biology of the cells to understand various fields of biology analytically. Followings are details of the objectives. 1. To understand basic molecular biology. 2. To understand activity of cells based on physics and chemical principle. 3. To understand biological phenomenon caused by molecular compounds. 4. To understand structures and functions of major macromolecules in living organisms. 5. To understand basic mechanisms of biosynthesis of macromolecules. 6. To develop a proactive attitude in class and become a self-directed learner.						
Course Schedule, Course Contents and Instruction Methods		First half (by Dr. Takahashi) 1. Why and how you learn biology 2. Various fields of biology and their goals 3. Similarity and diversity in cells 4. Bioelements and chemical bonds 5. Biological molecules and their interaction in solution 6. Enzyme reactions and free energy 7. The structure and function of proteins Second half (by Dr. Fukuda) 1. Introduction: What is DNA? 2. Basic structure of DNA 3. DNA Replication and repair 4. Transcription: from DNA to RNA 5. Translation: from RNA to protein 6. Control of gene expression 7. The evolution of the genome 8. Comments and final exam						
Learning Activities outside the Classroom		Repetitive text reading is required for understanding especially for the final exam.						
Textbooks and/or References		1. Required text: Essential Cell Biology forth edition 2. Supplies: we will give you handouts if needed.						
Grade Evaluation Policy		Coursework will be weighted as follows: 1. Class attendance/participation and assignments 50% 2. Final exam 50% One can acquire credit when he/she gets more than 60%.						
How to contact the instructor outside the classroom (Office Hours)		For any questions contact anytime with the instructors by e-mail or kibaco.						

Notice for Students
(Relevance to other
courses)

SUGGESTIONS FOR SUCCESS

This course emphasizes on questioning- and thinking-based learning but not on knowledge-based learning. Some students who did well in high school courses and exams where memorizing information and knowledge were most important may find some difficulties in this course. Such students are recommended to learn a positive attitude first, which includes thinking and questioning in the class, and making a connection among new and old knowledge to understand a complex system in the cell.

This class is for freshmen in the department of Biological Science. We recommend another General Biology class, "General Biology IA" for students belonging other departments and courses.

Course Title	General Taxonomy			Course Number	V5113 (10389)	Credit	2
Instructor	Katsuyuki Eguchi • Noriaki Murakami		1st Semester	Wed.	4th Period	Minami-Osawa Campus	
Course Description / Theme		Taxonomy and systematics are the studies of biodiversity, and thus most basic fields in Biological Sciences. In the modern systematics, phylogenetic approaches are also important and indispensable. In this lecture, basic principles and procedures in taxonomy and phylogenetic systematics as well as biodiversity of the major groups of organisms and biogeography will be introduced.					
Knowledge & Abilities students can acquire through the class, Course Objectives		Upon completion of the class, students will be able to: 1. Explain the basic principles of taxonomy, classification and nomenclature 2. Explain the central concepts and principles of phylogenetic analysis, especially based on parsimony criterion 3. Recognize diversity of the major groups of organisms					
Course Schedule, Course Contents and Instruction Methods		1. Introduction 2. Cladistics and phylogenetic trees 3. Phylogenetic inference with parsimony 4. Phylogenetic analyses based on molecular data 5. Reliability of the obtained tree 6. Character evolution based on molecular tree 7. Review and mid-term examination 8. Plant diversity 9. Fungi diversity 10. Aims and needs of taxonomy 11. Nomenclature and hierarchical classification 12. Biological species concept and speciation in animals 13. Diversity of animals 14. Geographical distribution of animals 15. Review and Final examination					
Learning Activities outside the Classroom		Submission of report (A4 1 page) , which was prepared at home as homework, is required after every class.					
Textbooks and/or References		Baum, D.A and Smith, S.D. 2012. Tree Thinking. An Introduction to Phylogenetic Biology. Roberts and Company Publishers, Greenwood Village, CO. Reece J.B. et al. 2013. Campbell Biology. Pearson Benjamin Cummings, San Francisco, CA.					
Grade Evaluation Policy		Grades will be based on class participation (20%) and your average score of the mid-term and final written examinations (80%).					
How to contact the instructor outside the classroom (Office Hours)		Office hour: Wednesday 13:00 - 14:30					
Notice for Students (Relevance to other courses)							

Course Title	Molecular Biology	Course Number	V5114 (I435)	Credit	2
Instructor	Takashi Okamoto • Tsunaki Asano	1st Semester	Tue.	1st Period	Minami-Osawa Campus
Course Description / Theme	In this course, we study and discuss the mechanisms in developmental and physiological events during the life cycle in animals and plants.				
Knowledge & Abilities students can acquire through the class, Course Objectives	The first half (Instructor: Tsunaki Asano) : In the class, we study and discuss about molecular pathways for developmental and physiological events, including construction of body structures and response (physiological, metabolic and behavioral) against environmental stimuli. The second half (Instructor: Takashi Okamoto): During life cycle in angiosperms, developmental and physiological events, including seed germination, vegetative growth, flower formation (developmental phase change), gametogenesis, double fertilization, embryogenesis, seed formation, occurs. In the class, we study and discuss the mechanisms in these events.				
Course Schedule, Course Contents and Instruction Methods	1. Animal body plans/Construction of body structures 2. Extracellular matrix/Extra-cellular signaling 3. Insects as an example of successful animal 4. Response/adaptation against environments 5. Body color patterns and associated genes 6. Defense against pathogens 7. Convergence in adaptations 8. Mid-exam and summarization 9. Body plan of plants 10. Plant cells: Totipotency 11. Seed germination 12. Vegetative growth 13. Reproductive growth 14. Fertilization and seed formation 15. Final-exam and summarization				
Learning Activities outside the Classroom					
Textbooks and/or References	Mechanisms in Plant Development, Blackwell Publishing: Handout will be provided.				
Grade Evaluation Policy	Class Attendance/quiz 20%, Mid-term exam 40%, Final exam 40%				
How to contact the instructor outside the classroom (Office Hours)	You can contact lecturers anytime. Asano: 8-422, asano-tsunaki@tmu.ac.jp Okamoto: 8-320, okamoto-takashi@tmu.ac.jp				
Notice for Students (Relevance to other courses)					

Course Title	Special Lecture in Biology a			Course Number	V5115 (I434)	Credit	1
Instructor	Yoko Kakugawa	2nd Half of 1st Semester	Thu.	1st Period	Minami-Osawa Campus		
Course Description / Theme	In this class we learn the evolutionary biology on species and speciation by reading some textbook chapters and recent papers together.						
Knowledge & Abilities students can acquire through the class, Course Objectives	Students will be able to discuss the processes of species diversification.						
Course Schedule, Course Contents and Instruction Methods	1) What are species? What is the genetic basis of speciation? 2) What barriers to gene flow result in speciation? 3) Barriers to gene flow: Keeping species apart. 4) What happens when newly formed species come into contact? 5) Why do rates of speciation vary? 6) Uncovering hidden species. 7) Review						
Learning Activities outside the Classroom	Students are required to read some textbook chapters and papers at homeThe instructor prepares some hand-out materials for the class.						
Textbooks and/or References	The instructor prepares some hand-out materials for the class.						
Grade Evaluation Policy	Essay 50%. Active participation 50% (Students are required to read some textbook chapters and papers at home and give short presentations)						
How to contact the instructor outside the classroom (Office Hours)	Yoko KAKUGAWA Rm. 107, Makino Herbarium. (ex.2723) e-mail:kakugawa@tmu.ac.jp Wednesday 13:00 to 15:00.						
Notice for Students (Relevance to other courses)							

Course Title	Animal ecology and diversity			Course Number	V5117 (X0148)	Credit	2
Instructor	Adam L Cronin		1st Semester	Tue.	6th Period	Minami-Osawa	
Course Description / Theme	Animals exhibit remarkable diversity of form, behaviour and lifestyles. How do we explain this diversity? Why are some animals or groups more diverse than others? What are some animals found everywhere while others only exist in one place? We will explore these and other questions around this theme.						
Knowledge & Abilities students can acquire through the class, Course Objectives	The aim of this course is to introduce students to biological concepts associated with the study of animal diversity and ecology, using a case-study approach. At the end of the course, students should be able to generate and investigate their own questions regarding the natural world of animals.						
Course Schedule, Course Contents and Instruction Methods	Lessons will be structured around group work and open discussion built around three general themes. Students will collectively decide the specific topic of the next lecture each time, and prepare their own materials on the chosen topic to share in class. These materials will be combined into an ‘information portfolio’ on the topic of interest, which will go into a complete information volume for the course each year. Each lecture will have a specific focus determined by students (nominations and votes) in the previous lecture. The course will be structured around three principle themes: animals, ecosystems and diversity. Lecture subjects under ‘animals’ might thus include a discussion on the behaviour, ecology and life-history of the platypus. A lecture under ‘diversity’ might examine why tropical reefs are so speciose, or the variety of forms of spiders in relation to their ecology. Lecture outline: 1. Introduction 2 – 5: Animals 6 – 9: Ecosystems 11 – 13: Diversity 14 - 15: Synthesis / open discussion						
Learning Activities outside the Classroom	Students will be given occasional tasks to perform outside of class during the semester						
Textbooks and/or References	Students are expected to do their own information collection and contribute this to the collective information pool in class. The lecturer will provide additional relevant material in class and guidance on the use of information sources. There is no specific text book, and as topics may range widely, a specific book is unlikely to be useful. General biology text books such as Campbell's 'Biology: a global approach' (ISBN 978-1292008653) may be helpful.						
Grade Evaluation Policy	Students will be graded based on contributions to lectures throughout the semester in terms of building each portfolio.						
How to contact the instructor outside the classroom (Office Hours)	There are not set office hours: please visit my office if you have any questions or send queries by email.						
Notice for Students (Relevance to other courses)	This course will be conducted in English. Students should prepare all materials in English and will have the opportunity to discuss among themselves and with the general class in English.						

Course Title	Gene Science			Course Number	V5118 (I436)	Credit	2
Instructor	Takaomi Sakai • Toshiro Aigaki	1st Semester	Thu.	2nd Period	Minami-Osawa Campus		
Course Description / Theme	The molecular genetic basis of biological phenomena. This lecture will be taught by Prof. Toshiro Aigaki (Part1) and Associate Prof. Takaomi Sakai (Part2).						
Knowledge & Abilities students can acquire through the class, Course Objectives	This lecture will provide opportunity to learn how to use genetics to understand mechanisms of complex biological processes, such as development or behavior.						
Course Schedule, Course Contents and Instruction Methods	[Part1] 1. Genes and mutations 2. Genetic manipulation in model animals I 3. Genetic manipulation in model animals II 4. Genetic dissection of signal transduction pathways I 5. Genetic dissection of signal transduction pathways II 6. Genetic interaction 7. Disease models 8. Review and exam [Part2] 9. What is “Neurogenetics” ? 10-11. General remarks on circadian rhythms 12-14. Neurogenetics in circadian rhythms 15. Neurogenetics in animal behaviors						
Learning Activities outside the Classroom							
Textbooks and/or References	Handouts will be distributed to students in classes.						
Grade Evaluation Policy	Presentation and discussion 30%, Quiz or Report submission 30%, Midterm and final examinations 40%.						
How to contact the instructor outside the classroom (Office Hours)	Particular office hour is not allocated, but students can make appointments by e-mail.						
Notice for Students (Relevance to other courses)	1. It is advisable to take “General Genetics” before you take this course. 2. In the second part of this course, there will be a quiz at the beginning of the every class. Thus, you should review the previous lecture.						

Course Title	Introduction to Energy Chemistry			Course Number	V5119 (K465)	Credit	2
Instructor	Jacob Yan Mulyana	1st Semester	Thurs.	1st Period	Minami-Osawa Campus		
Course Description / Theme	The introduction to energy chemistry course uses English as the medium of instruction and covers chemical thermodynamics, energy conservation principles, forms of energy and practical aspects of renewable and non-renewable energy sources.						
Knowledge & Abilities students can acquire through the class, Course Objectives	- Students will gain the understanding of the fundamental aspects of chemical energies - Through problem-based learning, students will develop the awareness of energy sources that are appropriate for sustainable environment - Students will be able to express their critical understanding of the concept of sustainable energy and environment in discussion and in writing						
Course Schedule, Course Contents and Instruction Methods	I. Knowledge 1) - 2) Chemical thermodynamics and energy conservation principles 3) - 4) Chemical and electrochemical energy 5) - 6) Nuclear energy 7) Mid-term exam II. Problem-based learning 8) Impact of fossil fuels on the environment 9) Group activities I 10) - 11) The choices of renewable energy technologies 12) Group activities II, Writing assignment preparation I 13) Group activities III, Writing assignment preparation II 14) Assignment submission and evaluation						
Learning Activities outside the Classroom	- Students review the lecture after the class for the homework, quizzes and mid-term exam - Students must organize a time for extra group activities outside the classroom to prepare for group assignments						
Textbooks and/or References	P. Atkins and J. de Paula, Physical Chemistry, 9th Ed, Oxford University Press (2010) R. L. Murray and K. E. Holbert, Nuclear Energy, 7th Ed, Elsevier (2015) G. Boyle, Renewable Energy Power for Sustainable Future, 3rd Ed, Oxford University Press (2012) - Useful websites, scientific journals and handouts						
Grade Evaluation Policy	- Attendance (5%) - Homework and quizzes (5%) - Mid-term exam (40%) - Assignment (50%)						
How to contact the instructor outside the classroom (Office Hours)	Monday 10:30 - 12:00 or by appointment: ymulyana@tmu.ac.jp						
Notice for Students (Relevance to other courses)	Students must review the lecture content after each delivery and prepare for the next lecture session. Homework assignments will be given after the session and quizzes will be taken at the start of the class.						

Course Title	Cultural Psychology			Course Number	V5120	Credit	2
Instructor	Shizu Koyanagi	1st Semester	Tue.	2nd Period	Minami-Osawa Campus		
Course Description / Theme	Living in a different country gives you a lot of opportunities to enjoy new things including new friendships. At the same time, however, it sometimes gives you physical and psychological stress. During your study abroad in Japan, you may face some situations in which you are not functioning very well or you are frustrated with the interaction with the people from different culture. The reason for such feelings could be acculturative stress, in other words, culture shock.						
Knowledge & Abilities students can acquire through the class, Course Objectives	By the end of this class, you will learn and acquire; • Basic theories for Cultural Psychology • Knowledge and skills to manage cultural differences and your emotion • Cultural norms in Japan and its background The course will help your adjustment to Japanese study sojourns with deeper understanding of culture.						
Course Schedule, Course Contents and Instruction Methods	1. Introduction 2. Communication model 3. Culture and emotion 4. Analyse your experiences 1 5. Cultural simulation, Understanding cultural norms 6. Understanding intercultural communication, your emotional reaction and behaviour 7. Mid-presentation 1 8. Mid-presentation 2 9. Analyse your experiences 2 10. Analyse your experiences 3 11. Cultural patterns and dimensions 12. Analyse your experiences 4 13. In-group & out-group, sense of boundary 14. Final presentation 1 15. Final presentation 2 To understand your emotion and such stress, we look into your experiences and psychological state by a workshop style. In the classes, participants are required to share your experiences and emotion in Japan with the teacher and classmates.						
Learning Activities outside the Classroom	Every week, you write reports on analysis of cultural norms and your emotion based on your experiences. Also, you will be engaged to investigate some cultural norms of Japan as your own project consisting of presentations and a final report.						
Textbooks and/or References	Reading articles will be chosen from several materials including: • Meyer, E. (2014) The Culture Map: Breaking Through the Invisible Boundaries of Global Business. New York, Public Affairs. • Davies, R. & Ikeno, O. (2002) The Japanese Mind: Understanding Contemporary Japanese Culture. Tuttle Publishing. • Ting-Toomey, S. & Chung, C. L. (2012). Understanding Intercultural Communication. New York. Oxford University Press. Detail will be announced in the class.						

Grade Evaluation Policy	Participation (attendance, assignments, weekly reports, discussion and group works) = 60%, Presentation = 20%, Final report = 20%,
(Office Hours)	Office hour: Tue. & Wed. PM. Send an email in advance. shizuwk@tmu.ac.jp
Notice for Students (Relevance to other courses)	For the detailed instructions, you must attend the first day of the class. Depending on the number of students and their cultural backgrounds, the above contents may change.

Course Title	Introduction to Japanese Studies I			Course Number	V5121	Credit	2
Instructor	S.Koyanagi, L.Sasaki, et al.	1st Semester	Mon.	2nd Period	Minami-Osawa Campus		
Course Description / Theme	In this course, you will have opportunities to explore some exclusive aspects of Japan and Tokyo from academic perspectives. In the 1st semester, we look into three key topics; (1)Japanese Nature and Satoyama (2)Ikebana(flower arrangement) Ohara School (3)Bureau of Waterworks Tokyo Metropolitan Government For each topic, it contains three components; 1. Lecture A lecture is provided by a faculty or a specialist on the issue and gives you basic knowledge of the topic. 2. Field trip We visit places relevant to the topic in order to understand the real situation. Depending on the topic, you will conduct some research such as interview or observation. 3. Presentation and report Based on the lecture and fieldwork, a presentation and reports are required.						
Knowledge & Abilities students can acquire through the class, Course Objectives	Through this course, you will learn and acquire; • Introductory knowledge about technology, mind-set, or social system unique to Japan or Tokyo. • Deep insight into Japanese culture. • Comprehensive understanding of the topics in Japan and Tokyo.						
Course Schedule, Course Contents and Instruction Methods	1. Introduction (April 9) 2. Lecture on Japanese Nature and Satoyama 3. Field Trip on Japanese Nature and Satoyama 4. Lecture on Ikebana (flower arrangement) Ohara School 5. Field Trip on Ikebana(flower arrangement) Ohara School 6. Lecture on Bureau of Waterworks Tokyo Metropolitan Government 7. Field Trip on Bureau of Waterworks Tokyo Metropolitan Government 8. Presentation 9. Overview Please note that lectures and presentation are held on Monday 2nd period, and fieldworks are on Saturday, Sunday, or no-class day. The detailed schedule will be provided on the first lesson.						
Learning Activities outside the Classroom	You are required to work on reports and presentation for the topics. Some readings would be necessary to prepare for classes and fieldworks.						
Textbooks and/or References	References and materials will be provided in the class.						
Grade Evaluation Policy	Participation (contribution, attendance, assignments) = 50%, Presentation = 25% Reports = 25%						
How to contact the instructor outside the classroom (Office Hours)	Office hour: Tue. & Wed. PM. Send an email in advance. shizuwk@tmu.ac.jp						
Notice for Students (Relevance to other courses)	For the detailed instructions, you must attend the first day of the class on April 9th. The detail of the lectures and fieldworks is subject to change depending on the number of participants. Participants must bear the cost of fieldworks, such as transportation, admission tickets, food, etc.						

Course Title	Intercultural Communication and Interaction			Course Number	V5122 (X0145)	Credit	2
Instructor	Shizu Koyanagi		1st Semester	Wed.	5th Period	Minami-Osawa	
Course Description / Theme		What factors are important to communicate with people from other cultures? Let's explore the answers to the questions in this class. To understand practical intercultural communication, this class offers opportunities to interact with students from different cultural background. Also, this class adopts several different approaches: 1. The lectures will cover some basics theories of intercultural communication and cultural contacts from an interdisciplinary viewpoint. 2. Group project with members from different cultural backgrounds is the main tasks of this class. Each group investigates their chosen topic related to Japanese society by fieldworks. 3. Collaborative online classes with universities overseas and/or group works with classmates will be conducted. 4. Your active participation in discussions and group works are required. To do so, you must work on tasks outside of class hours.					
Knowledge & Abilities students can acquire through the class, Course Objectives		By the end of this class, you will learn and acquire; • Basic theories for intercultural communication and cultural contacts • Skills and competencies to communicate with people from different cultures • Perspectives or viewpoints from other cultures and in global society					
Course Schedule, Course Contents and Instruction Methods		1. Introduction: Communication experiment 2. What is culture? 3. Group work / online class 4. Discussion on selected topics 5. What is communication? 6. Group project : team up, select a topic and set your schedule 7. Group project : designing your research methods 8. Communication styles 9. Group project : mid-presentation 10. Understanding intercultural communication 11. Discussion on selected topics 12. Competences for intercultural communication and the global world 13. Final presentation 1 14. Final presentation 2 15. Review					
Learning Activities outside the Classroom		Most of group works will be conducted outside of the class hours. You are required to work on weekly reports and other tasks.					
Textbooks and/or References		Reading articles will be chosen from several materials including: Ting-Toomey, S. & Chung, C. L. (2012). Understanding Intercultural Communication. New York. Oxford University Press. Newspaper articles Detail will be announced in the class.					
Grade Evaluation Policy		Participation (attendance, assignments, discussion, group project and work) = 50% Presentation = 25% Final report = 25%					

How to contact the instructor outside the classroom (Office Hours)	For the detailed instructions, you MUST attend the first day of the class. This class will be conducted in global English and you must use English for communication. No specific English score will be required, however, English ability to read and communicate is essential. Your active involvements in the class, discussion, and group works are required. Depending on the number of students and their cultural backgrounds, the above contents may change.
Notice for Students (Relevance to other courses)	Tue. & Wed. PM. Send an email in advance. shizuwk@tmu.ac.jp

Course Title	Sustainability Studies and Global Environmental Governance	Course Number	V5123	Credit	2
Instructor	Lidia Sasaki	1st Semester	Fri.	2nd Period	Minami-Osawa Campus
Course Description / Theme	An introduction to contemporary global environmental change, the course represents a cross-disciplinary systems approach to the complex inter-relations between Nature and Society; it focuses on the challenges to promote sustainable development in the 21 st century and on the need for a comprehensive vision and international cooperation in tackling environmental degradation. The course offers political, economic and social perspectives of the environmental crisis, as well as introducing issues of justice and equity in dealing with environmental conflicts.				
Knowledge & Abilities students can acquire through the class, Course Objectives	The course will enable students to: (1) grasp the complexity of Earth's environment as a system; (2) gain familiarity with systemic thinking and the cross-disciplinary approach; (3) gain awareness of the scale and severity of the global environmental crisis; (4) develop a responsible attitude as citizens of the global community and potential leaders in their field.				
Course Schedule, Course Contents and Instruction Methods	The course will consist of lectures, class discussion and group work. 1. Introduction 2. Earth as a dynamic, complex system 3. The Dynamics of Human- Environment Interactions 4. Carrying Capacity and Ecological Footprint 5. Human Dimensions of Global Environmental Change 6. Limits to Growth and the Sustainable Development Concept 7. Global Environmental Issues 8. Society and Resources 1 9. Society and resources 2 10. Pollution 11. Global Climate Change: Al Gore documentary 12. Global environmental governance 13. Student Presentations 1 14. Student Presentations 2 15. Conclusions				
Learning Activities outside the Classroom	Students are expecting to prepare: Reading assignments on relevant topics Research notes on environmental issues in the student's home country/region				
Textbooks and/or References	Wright RT 2007: Environmental Science: Toward a Sustainable Future, 10th Edition, Pearson Prentice Hall Meadows D. Randers J. (2004): Limits to Growth. The 30-Year Update. Chelsea Green Publishing Al Gore (2005): An Inconvenient Truth (DVD)				
Grade Evaluation Policy	Final Presentation: 70% , Class Participation: 20%, Attendance: 10%				
How to contact the instructor outside the classroom (Office Hours)	Office hours: Thursday 10:30-12:00				
Notice for Students (Relevance to other courses)					

Course Title	Global Mindset			Course Number	V5124 (X0034)	Credit	2
Instructor	Annette Karseras	1st Semester	Tue.	1st Period	Minami-Osawa		
Course Description / Theme	What strikes you as different between the people you grew up with as a child, the people around you in Japan now, and the people in countries you might visit in the future? Are those differences personal, cultural or both? This “Global Mindset” course gives you a vocabulary to describe such differences and introduces a range of communication skills you can adapt according to the person, culture and situation. Please bring curiosity and an open mind as well as your texts ;-) This course uses a systems view of communication that combines both a comparative and interpersonal approach to help you develop your global mindset. Do you know where your blind-spots are?! We look at cultural values from different points of view to increase self- and other-awareness. Mini, interactive lectures combine with student-led discussion & simulations to build a practical understanding of intercultural communication theory and help make a global mindset intuitive.						
Knowledge & Abilities students can acquire through the class, Course Objectives	Students will gain knowledge of key cultural dimensions and communication styles and raise their awareness about their own and others’ preferences. Students will also learn skills related to non-verbal communication and negotiation of meaning in ambiguous intercultural communication situations.						
Course Schedule, Course Contents and Instruction Methods	1. Global & local culture [Journal brief], A-S-K, EQ-SQ-CQ-GQ 2. Simulation: Barnga Practice (Rules 1) 3. Barnga Practice (Rules 2), Simulation 1 Barnga. 4. Debrief 1 Barnga, Acculturation, Simulation 2 Barnga. 5. Debrief 2 Barnga. High and low context communication styles, SAD FISH 6. Hi context & low context Teamwork. [Presentation brief] , Brief: Bonus! Hofstede, Cultural dimensions 7. Simulation: Bonus! 8. Debrief: Individualism & collectivism, Power distance 9. Presentations & discussion TEAMS 1-2 [Submit Caizen.PPT or journal] 10. Nadeshiko Part 1, 3Trans-Hepburn, 6 Tips for intercultural translation 11. Nadeshiko Part 2, Rank #1 groups & listening-beyond-words 12. Rosemary: #5 Rank Parson's Regional clusters 13. Debrief Feminine-masculine; task-relationship dimensions; 14. Presentations & discussion TEAMS 3-4 [Submit Caizen.PPT or journal] 15. Simulation: Paper Tower, KiNouBi 機能美, Dream Team votes.						
Learning Activities outside the Classroom							
Textbooks and/or References	Students are responsible for downloading PDF course materials from URLs provided. References include: Brislin & Yoshida Improving Intercultural Interactions Hofstede Software of the Mind Goleman (2006) Social Intelligence Inkson & Dobbs Cultural Intelligence Martin & Nakayama Intercultural Communication in Contexts Erin Meyer The Culture Map Stortie Figuring Foreigners Out Trompenaars Riding the Waves of Culture						

Grade Evaluation Policy	30% Class Participation Your personal contribution to discussions and opening space proactively for others to contribute. (attendance alone will not secure a pass). 30% Individual journal 1 entry per week to reflect on an aspect of Japan/other country's culture. Caizen reflections on assignments & simulations/classwork. 30% Group presentation 15 minute presentation in teams to compare one aspect of Japanese society with that of another country using dimensions from one of the course modules. 15 minutes discussion facilitation. 10% Peer evaluation based on 'Dream Team' votes for global project
How to contact the instructor outside the classroom (Office Hours)	Students can meet with the teacher before most classes from 08:30 and by email (email provided during the first class).
Notice for Students (Relevance to other courses)	The course will be delivered mainly in English with some Japanese to support understanding. The course will enhance both native and non-native English speakers' verbal and nonverbal international communication skills. All students' will become more confident adapting their communication style appropriate to the cultural context. Non-native English Speakers: No minimum score in English is required but you must be willing to speak (not just read and write) in English each week so that you can participate actively during class activities. Native and fluent English speakers: You will be encouraged to use 'international English' suitable for people from a range of different cultural and linguistic backgrounds and English levels.

Course Title	Contemporary Japanese Society I			Course Number	V5125	Credit	2
Instructor	Yoko Kumada	1st Semester	Tue.	4th Period	Minami-Osawa Campus		
Course Description / Theme	This course is discussion-based and deals with ongoing issues in Japan. Based mainly on anthropological, ethnological and sociological studies, various topics relating to the contemporary Japanese society will be explored.						
Knowledge & Abilities students can acquire through the class, Course Objectives	Students will learn about Japan from various aspects, such as culture, history and politics. In this process, one will also have an opportunity to reconsider his/her own culture and society, as a proper comparison is the key to the comprehensive understanding of any society. Therefore, students are expected to provide knowledge on their local culture(s) or any culture they are familiar with.						
Course Schedule, Course Contents and Instruction Methods	1. Introduction 2. How do we reach “Contemporary Japanese Society”: Methodological issues 3. Socialization and classification in Japan (Hendry) 4. Geographical and Generational Variations in Japan (Sugimoto) 5. Forms of Work in Cultural Capitalism in Japan (Sugimoto) 6. Educational system in Japan (Sugimoto) 7. Gender stratification and family in Japan (Sugimoto) 8. Popular culture and everyday life in Japan (Sugimoto) 9. Civil society and friendly authoritarianism in Japan (Sugimoto) 10. Reconsidering the wartime: <i>The Chrysanthemum and the Sword</i> now (1) (Benedict) 11. Reconsidering the wartime: <i>The Chrysanthemum and the Sword</i> now (2) (Benedict) 12. Gender and sexuality in Japan (1) : The history of sexual issues 13. Gender and sexuality in Japan (2) : A case of sexual industry 14. Group presentations 15. Conclusion						
Learning Activities outside the Classroom	All students are required to complete the assigned readings, to participate in group discussions and to give presentations.						
Textbooks and/or References	Sugimoto, Yoshio, 2014, <i>An Introduction to Japanese Society (Fourth Edition)</i>, Melbourne: Cambridge University Press. (ISBN-10: 1107626676) Benedict, Ruth, 2006(1946) <i>The Chrysanthemum and the Sword</i>, New York: Mariner Books (ISBN-10: 0618619593). Hendry, Joy, 2013, <i>Understanding Japanese Society (Fourth Edition)</i>, London and New York: Routledge. (ISBN-10: 0415679141) [Suggested readings] Allison, Ann, 1994, <i>Nightwork: Sexuality, Pleasure, and Corporate Masculinity in a Tokyo Hostess Club</i>, Chicago and London: University of Chicago Press (ISBN-10: 0226014878).						
Grade Evaluation Policy	Attendance/Class participation 30% Performance in discussions 10% Feedback paper at the end of each class 5% Presentation 25% Final Report 30%						
How to contact the instructor outside the classroom (Office Hours)	The contact information (e-mail) will be provided in class. Office hours: Tue 16:15-17:15, Building 5, Room 638, or by appointment or anytime via e-mail.						
Notice for Students (Relevance to other courses)	Details of assignments will be announced in class. The details of the lectures and topics are subject to change depending on the number of participants.						

2. Courses offered in English (2nd Semester)

SATOMU Program: Courses Offered in English (2nd Semester, Academic Year 2018)

Faculty	Course Title	Original Course Number	SATOMU Course Number	Credit	Lecturer	Semester	Day	Period	Campus	Building	Room#	Page#
Faculty of Urban Liberal Arts (4courses)	The Japanese Language	X0003	V5201	2	Daniel Long	2nd Semester	Mon.	1	Minami-Osawa	6	402	36
	Origins of Modern Japanese Literature Part II	F3633	V5202	2	Michael Yasui	2nd Semester	Wed.	3	Minami-Osawa	5	443	37
	Seminar on Multicultural Education	F1246	V5203	2	Hiroyuki Nomoto	2nd Semester	Fri.	2	Minami-Osawa	5	137	38
	History of Japanese Film	-	V5204	2	Kentaro Sudoh	2nd Semester	Thu.	2	Minami-Osawa	6	402	39
Faculty of Law (1 courses)	Japanese Politics in Comparative Perspective	-	V5205	2	Hirofumi Kawaguchi	2nd Semester	Fri.	5	Minami-Osawa	1	202	40
Faculty of Science (23courses)	General Chemistry I	I0417	V5206	1	All faculty members of department of Chemistry et al.	2nd Semester	Wed.	5	Minami-Osawa	8	303	41
	General Biology II B	I0384	V5207	2	Shin Haruta, Takatori Naohito	2nd Semester	Tue.	5	Minami-Osawa	11	103	42
	General Physiology	I0390	V5208	2	Kanae Ando	2nd Semester	Wed.	4	Minami-Osawa	11	101	43
	General Cell Biology	I0386	V5209	2	Toshiro Aigaki・Takaomi Sakai	2nd Semester	Wed.	5	Minami-Osawa	11	103	44
	Biological Information	I437	V5210	2	Hiroyuki Kawahara	2nd Semester	Mon.	1	Minami-Osawa	11	103	45
	General Evolutional Biology	I0430	V5211	2	Adam L Cronin	2nd Semester	Mon.	5	Minami-Osawa	11	103	46
	General Genetics	I0388	V5212	2	Aya Takahashi・Kouichiro Tamura	2nd Semester	Tue.	4	Minami-Osawa	11	103	47
	General Microbiology	I0360	V5213	2	Shigeki Ehira・Shin Haruta	2nd Semester	Mon.	4	Minami-Osawa	11	202	48
	Developmental Biology	I424	V5214	2	Kimiko Fukuda・Naohito Takatori	2nd Semester	Fri.	2	Minami-Osawa	11	201	49
	Human Biology	X0144	V5215	2	Kanae Ando	2nd Semester	Mon.	6	Minami-Osawa	11	103	50
	Neuroscience	I391	V5216	2	Kanae Ando	2nd Semester	Tue.	1	Minami-Osawa	11	103	51
	Biodiversity	I438	V5217	2	Noriaki Murakami	2nd Semester	Wed.	2	Minami-Osawa	11	201	52
	Ecosystems and Environments	X0142	V5218	2	Vera Thiel・Marcus Tank	2nd Semester	Wed.	6	Minami-Osawa	11	103	53
	Special Lecture in Biology b	I397	V5219	1	Vera Thiel	1st Half of 2nd Semester	Mon.	2	Minami-Osawa	11	201	54
	Special Lecture in Biology c	I398	V5220	1	Marcus Tank	2nd Half of 2nd Semester	Mon.	2	Minami-Osawa	11	201	55
	Special Lecture in Biology d	I395	V5221	1	Kanae Ando	1st Half of 2nd Semester	Tue.	2	Minami-Osawa	11	103	56
	Special Lecture in Biology e	I396	V5222	1	Kanae Ando	2nd Half of 2nd Semester	Tue.	2	Minami-Osawa	11	103	57
	Special Lecture in Biology f	I273	V5223	1	Kouichiro Tamura	1st Half of 2nd Semester	Wed.	1	Minami-Osawa	11	103	58
	Special Lecture in Biology g	I345	V5224	1	Shin Haruta	2nd Half of 2nd Semester	Wed.	1	Minami-Osawa	11	103	59
	Special Lecture in Biology h	I346	V5225	1	Toshiro Aigaki	1st Half of 2nd Semester	Thu.	2	Minami-Osawa	11	201	60
	Special Lecture in Biology i	I347	V5226	1	Aya Takahashi	2nd Half of 2nd Semester	Thu.	2	Minami-Osawa	11	201	61
	Special Lecture in Biology j	I431	V5227	1	Adam L Cronin	1st Half of 2nd Semester	Fri.	1	Minami-Osawa	11	103	62
	Special Lecture in Biology k	I432	V5228	1	Adam L Cronin	2nd Half of 2nd Semester	Fri.	1	Minami-Osawa	11	103	63

SATOMU Program: Courses Offered in English (2nd Semester, Academic Year 2018)

Faculty	Course Title	Original Course Number	SATOMU Course Number	Credit	Lecturer	Semester	Day	Period	Campus	Building	Room#	Page#
Faculty of Urban Environmental Sciences (3courses)	Regional Environmental Studies	-	V5229	2	Toshio Kikuchi	2nd Semester	Mon.	5	Minami-Osawa	12	203	64
	Tourism Theories and Practice	X0035	V5230	2	Naoi, Kikuchi, Shimizu, Kawahara, Numata, Okamura, Osawa, Hihara	2nd Semester	Tue.	1	Minami-Osawa	1	203	65
	Transport Planning and Management for Tourism Promotion	K423	V5231	2	Tetsuo Shimizu	2nd Semester	Wed.	1	Minami-Osawa	11	210	66
Faculty of Systems Design (2courses)	Experimental Photography	-	V5232	2	Verl Adams	2nd Semester	Tue.	3	Minami-Osawa	6	310	68
	Introduction to Aerospace Engineering 2	L0601	V5233	2	All faculty members of Department of Aeronautics and Astronautics	2nd Semester	Fri.	5	Minami-Osawa	1	109	69
International Center (6courses)	Cultural Psychology	-	V5234	2	TBA	2nd Semester	Tue.	2	Minami-Osawa	Int.H	231	71
	Intercultural Communication and Interaction	X0071	V5235	2	TBA	2nd Semester	Wed.	5	Minami-Osawa	1	204	72
	Current Issues of Education in Japan	-	V5236	2	Ikuko Okamura	2nd Semester	Thu.	3	Minami-Osawa	Int.H	231	73
	Introduction to Japanese Studies II	-	V5237	2	Lidia Sasaki, Hiroyuki Kawahara et al.	2nd Semester	Mon.	2	Minami-Osawa	Int.H	232	74
	Japanese Nature and Satoyama	-	V5238	2	Lidia Sasaki	2nd Semester	Fri.	2	Minami-Osawa	Int.H	232	75
	Contemporary Japanese Society II	-	V5239	2	Masaya Shijo	2nd Semester	Fri.	3	Minami-Osawa	6	311	76

Course Title	The Japanese Language			Course Number	V5201 (X0003)	Credit	2
Instructor	Daniel Long		2nd Semester	Mon.	1st Period	Minami-Osawa	
Course Description / Theme	This course focuses on the structure of the Japanese language including phonology, morphology, syntax and semantics.						
Knowledge & Abilities students can acquire through the class, Course Objectives	Upon completion of this course, students will have a knowledge of the structure of the Japanese language, including the “rules” which govern Japanese sounds, pitch accent, word formation and sentences structure. To this end, students will also be required to learn the general concepts of linguistics. The course will give non-native speakers a better grasp of the workings of the language and native Japanese speakers a more objective viewpoint from which to examine the structure of their language.						
Course Schedule, Course Contents and Instruction Methods	1. Theories on the origin of the Japanese language 2. Some notable historical changes in the Japanese language 3. The phonetic inventory of Japanese, consonants and vowels 4. Phonological rules, phonotactic rules, and allophones 5. Pitch accent systems (dialect and standard) 6. Vocabulary subsystems 7. Word formation 8. Morphology and allomorphs 9. Semantics 10. Syntactic rules 11. Conversation and discourse analysis 12. The languages varieties of Okinawa 13. The Ainu language 14. Japanese language acquisition by foreigners: historical overview and interlanguage 15. Notable scholars of the Japanese language						
Learning Activities outside the Classroom	【授業外学習】 毎回の授業後、http://nihongo.hum.tmu.ac.jp/~long/classes.htm で次回授業のレジメ及び予習内容を提示するので、必ず事前に予習を行い、内容を把握した上で授業に臨むこと。 Information about past and upcoming classes will be posted at http://nihongo.hum.tmu.ac.jp/~long/classes.htm and students will be expected to review past lessons and prepare for future topics based on this material.						
Textbooks and/or References	This class will not use a textbook but prints will be distributed as necessary.						
Grade Evaluation Policy	active class participation multiple class quizzes final written exams						
How to contact the instructor outside the classroom (Office Hours)	Office hours are Monday 10:30 - 12:00 or by appointment. Questions should be addressed to dlong(at mark)tmu.ac.jp						
Notice for Students (Relevance to other courses)	This class is designed to complement the course “Japanese Language and Society”. They differ in that this class deals with linguistic structure, while that class with the usage of Japanese in society. The courses may be taken independently of one another, but it is highly recommend that students take both for a balanced understanding of the language. Information about the class will be posted on the website below. http://nihongo.hum.tmu.ac.jp/~long/classes.htm						

Course Title	Origins of Modern Japanese Literature Part II	Course Number	V5202 (F3633)	Credit	2
Instructor	Michael Yasui	2nd Semester	Wed.	3rd Period	Minami-Osawa Campus
Course Description / Theme	Discourse and Rhetoric in English through Japanese Literature: Reading about Japanese Literature in English in order to develop debating methods and discuss how ideas in culture translate or fail to translate through language.				
Knowledge & Abilities students can acquire through the class, Course Objectives	In this course, students will learn the basic modes of discussion and debate while developing a more Global Awareness of Japanese Culture through reading and discussing Japanese Literature. Through discussion and debate, the course will explore the concept of neo-Whorfianism: basically how the language one learns to speak affects not only how information is expressed but also what information can be expressed. Students will also develop an sensibility of the origins of Modern Japanese Literature, and then attempt to understand how that translates in a global society.				
Course Schedule, Course Contents and Instruction Methods	16. Mimicry and Mimetic Misprision. (1) Discussion of the Concepts. 17. Mimicry and Mimetic Misprision. (2) Discussion of Reading Seven. 18. Allegories. (1) Discussion of the Concept. 19. Allegories. (2) Discussion of Reading Eight. 20. Buddhism and Fascism. (1) Discussion of the Concepts. 21. Buddhism and Fascism. (2) Discussion of Reading Nine 22. Isolation and the Orphan. (1) Discussion of the Concepts. 23. Isolation and the Orphan. (2) Discussion of Reading Ten. 24. Escapism and the Floating World. (1) Discussion of the Concepts. 25. Escapism and the Floating World. (2) Discussion of Reading Eleven. 26. Mysticism as Narrative. 27. Westernization. (1) Discussion of Concepts 28. Westernization. (2) Discussion of Reading Twelve. 29. Love. (1) Discussion of the Concepts 30. Love. (2) Discussion of the Reading. Final Exam.				
Learning Activities outside the Classroom	Two Additional Novels will be assigned for outside reading through out the semester. Students will also be required to complete a partner-project outside of class.				
Textbooks and/or References	“History and Repetition.” Kojin Karatani and Seiji M. Lippert. 柄谷行人の「歴史と反復」。All students should bring their own copy of the textbook to every class. Additional class materials will be announced throughout the course.				
Grade Evaluation Policy	Participation 30 %, Reading and Research Notebooks 20, Presentation 30 %, Debates 20 %.				
How to contact the instructor outside the classroom (Office Hours) Notice for Students (Relevance to other courses)	My office is located in Building 5 in room 513. My office hours will be Tuesday 4 th and 5 th period, or by appointment. My e-mail address is yasui●tmu.ac.jp.				

Course Title	Seminar on Multicultural Education			Course Number	V5203 (F1246)	Credit	2
Instructor	Hiroyuki Nomoto		2nd Semester	Fri.	2nd Period	Minami-Osawa Campus	
Course Description / Theme	In this course, English will be used basically as a medium for instruction. Students will analyze collectively the role of education in realizing the society with respect to cultural and ethnic diversity, focusing on second language acquisition, bilingual education, multicultural education or Ainu peoples' education. Students will be required to share the information about multicultural and multiethnic education in USA or New Zealand and recommended to make plan to visit overseas educational institutions.(Option) The exchange activities between foreign students and Japanese students will be placed as a base of this course.						
Knowledge & Abilities students can acquire through the class, Course Objectives	Students will have knowledges and abilities to organize community action and to make policy in order to live in peace with the people having different culture and language. Especially, it focuses on better understanding about educational issues related to foreign children or their language acquisition.						
Course Schedule, Course Contents and Instruction Methods	【Content and method】 This course will analyze community development and educational issues in the community with a high density of foreign residents, and educational practices related to multicultural education, bilingual education and Ainu peoples' education. 【Syllabus Planning】 Detail plan will be discussed by students themselves 16. Orientation for second semester 17. Discussion on Ainu peoples' schools or university 18. Overseas study visit related bilingual education, multicultural education and Ainu peoples' education 19. Preparation for visit to multicultural education program 20. Preparation for visit to bilingual education program 21. Preparation for visit to indigenous peoples' education program 22. Preparation for visit to Ainu peoples' education program 23. Final discussion for visit 24. Discussion for issuing the report 25. Report on visit 26. Discussion about visit 27. Discussion on report 28. Discussion on report 29. Making report 30. Final discussion						
Learning Activities outside the Classroom	Students will be required to read indicated papers or materials out of class as preparation. Writing some reports will be required.						
Textbooks and/or References	Not in particular						
Grade Evaluation Policy	Active class participation Final written report						
How to contact the instructor outside the classroom (Office Hours)	Office hour is set on Wednesday 4th. Students are required to send e-mail to nomoto@tmu.ac.jp before.						
Notice for Students (Relevance to other courses)	Overseas study visit is optional.						

Course Title	History of Japanese Film	Course Number	V5204	Credit	2
Instructor	Kentaro Sudoh	2nd Semester	Thurs.	2nd Period	Minami-Osawa Campus
Course Description / Theme	This course offers an overview of Japanese film history by examining its four main periods: Silent, Classical, New Wave and Contemporary periods. In retracing the film history, students will think critically about the relationship between art and industry, culture and politics, and thought and technology, in the twentieth and twenty-first centuries Japan.				
Knowledge & Abilities students can acquire through the class, Course Objectives	The main goals of the course are: (1) to become familiar with Japanese film history by learning about its social, cultural and historical contexts; (2) to refine one's own sensibility through analyzing films from different periods, genres and styles; (3) to appreciate the complexity of intercultural exchange in cinematic art.				
Course Schedule, Course Contents and Instruction Methods	1. Introduction 2. Silent Period: From Cinématographe to Pure Film Movement 3. <i>I Was Born But...</i> (1932, Ozu Yasujiro) 4. Analysis & Discussion 5. Classical Period (1): Arrival of Talkie 6. Classical Period (2): World War II and Golden Age of Cinema 7. <i>Rashomon</i> (1950, Kurosawa Akira) 8. Analysis & Discussion 9. New Wave Period: Social Transformation and Rise of Independent Cinema 10. <i>Death By Hanging</i> (1968, Oshima Nagisa) 11. Analysis & Discussion 12/ Contemporary Period: From Postmodern to Digital Cinema 13. <i>Tokyo Sonata</i> (2008, Kurosawa Kiyoshi) 14. Analysis & Discussion 15. Conclusion and Final Exam				
Learning Activities outside the Classroom	Students are required to see Japanese films mentioned in class.				
Textbooks and/or References	No textbook is required for this course. However, for a deeper understanding of the subject, students are advised to read: - Donald Richie, <i>A Hundred Years of Japanese Film</i>, Kodansha USA, 2012. - Alistair Phillips, Julian Stringer (eds), <i>Japanese Cinema: Texts and Contexts</i>, Routledge, 2007. - 四方田犬彦『日本映画史 110 年』、集英社新書、2014 年。				
Grade Evaluation Policy	Grading allocation is as follows: - Attendance and active participation: 50% - Final exam: 50%				
How to contact the instructor outside the classroom (Office Hours)	After the class or by appointment via email: kentarosudoh@gmail.com				
Notice for Students (Relevance to other courses)					

Course Title	Japanese Politics in Comparative Perspective			Course Number	V5205	Credit	2
Instructor	Hirofumi Kawaguchi	2nd Semester	Fri.	5th Period	Minami-Osawa Campus		
Course Description / Theme	This course introduces students to contemporary Japanese politics through international comparison. We will learn (i) important actors (e.g., legislators, bureaucrats, interest groups, and citizens) in Japanese politics, (ii) various political institutions, and (iii) the characteristics of the policy-making process. This course also will help students understand various approaches in political science.						
Knowledge & Abilities students can acquire through the class, Course Objectives	Upon successful completion of this course, students will be able to: (1) understand the key differences and similarities between politics in Japan and other advanced democracies. (2) critically evaluate the responses of the Japanese government and various actors in the Japanese society to the major challenges facing Japan. (3) assess strengths and weaknesses of different approaches in Japanese politics and comparative politics. (4) learn how to make a persuasive argument through group discussions.						
Course Schedule, Course Contents and Instruction Methods	1. Introduction 2. Historical Background I: Before WWII 3. Historical Background II: After WWII 4. Legislators 5. Elections and Campaigns 6. Political Parties 7. Prime Ministers 8. Bureaucrats 9. Interest Groups and Civil Society 10. Media and Public Opinion 11. Law and Politics 12. Welfare Policy 13. Gender and Political Participation 14. Nuclear Policy 15. Agricultural Policy *Schedule and topics subject to change in accordance with students' understanding.						
Learning Activities outside the Classroom	Classes will normally consist of students' presentation followed by group discussion. I will assign 40-70 pages of readings for each session. Students are expected to complete the readings before class. Students are required 4-hour reading every week and additional 2-hour preparation for the in-class presentation in the week they are assigned.						
Textbooks and/or References	All readings will become available electronically.						
Grade Evaluation Policy	Class Participation (30%), Presentations (30%), and Short Essays (40%)						
How to contact the instructor outside the classroom (Office Hours)	If you have any questions, please contact me via email. My email address will be notified in class.						
Notice for Students (Relevance to other courses)	Though knowledge of basic political science will help you understand the course, there are no prerequisites. Students at any level are welcome if they are interested in Japanese politics.						

Course Title	General Chemistry I			Course Number	V5206 (I0417)	Credit	1
Instructor	All faculty members of department of Chemistry et al.	2nd Semester	Wed.	5th Period	Minami-Osawa Campus		
Course Description / Theme	英語を用いて、物理化学、有機・生物化学、無機化学、分析化学の初歩を学ぶ。 This course provides students the basic introduction to physical chemistry, organic/biochemical chemistry, inorganic chemistry and analytical chemistry in English.						
Knowledge & Abilities students can acquire through the class, Course Objectives	英語による化学の初歩の理解。 Students will be able to understand basics of chemistry in English.						
Course Schedule, Course Contents and Instruction Methods	英語によって行われる講義であり、物理化学、有機・生物化学、無機化学、分析化学の初歩を学ぶ。 英語が母国語でない学生に対する化学分野での学術英語の習得のための講義である。 また、英語を母国語とする留学生で化学を専門としない学生で初歩の化学を学びたい学生も対象とする。 Instructors will provide students the basic introduction to the physical chemistry, organic/biochemical chemistry, inorganic chemistry and analytical chemistry in English. This class is also useful as an introduction of chemistry for foreign students including native speakers of English.						
Learning Activities outside the Classroom	【授業外学習】担当教員の指示に従うこと。						
Textbooks and/or References	プリントを配布する。 Handouts will be provided.						
Grade Evaluation Policy	出席と試験により評価する。 Evaluated by class attendance and examination						
How to contact the instructor outside the classroom (Office Hours)	【オフィスアワー】担当教員の指示に従うこと。						
Notice for Students (Relevance to other courses)							

Course Title	General Biology II B			Course Number	V5207 (10384)	Credit	2
Instructor	Shin Haruta、Takatori Naohito		2nd Semester	Tue.	5th Period	Minami-Osawa Campus	
Course Description / Theme	General Biology IB, IIB are the classes for the students of biological sciences course, dealing with basic knowledge in biology at the molecular (IB) and cell level (IIB).						
Knowledge & Abilities students can acquire through the class, Course Objectives	The first half of the class deals with phylogenetic and physiological diversity of prokaryotes (bacteria and archaea) and the second half with basic structure and functions in eukaryotic cells. The second half of the class will be a flipped classroom: students will be given reading/viewing materials before the class and will tackle questions and assignments in the classroom.						
Course Schedule, Course Contents and Instruction Methods	First half: Shin Haruta 1. Habitats of prokaryotes 2. Systematics of prokaryotes 3. Prokaryotic cell structure 4. Energy metabolism (respiration, fermentation) 5. Energy metabolism (photosynthesis) 6. Element cycle on Earth (carbon) 7. Element cycle on Earth (nitrogen, sulfur, phosphorus) 8. Conclusion and examination Second half: Naohito Takatori 9. Observing the cell: Principles of microscopy 10. Cell structure and function (plasma membrane, cell wall, nucleus) 11. Cell structure and function (mitochondria, chloroplast, ER, cytoskeleton) 12. Cell division (mitotic spindles) 13. Cell-Cell signaling 14. Evolution 15. Conclusion						
Learning Activities outside the Classroom	The students are expected to review each lecture by reading hand-outs or texts.						
Textbooks and/or References	Hand-outs will be provided in the class. Books for reference: Essential Cell Biology (Alberts et al., Garland Sci.), Molecular Biology of the Cell (Alberts et al., Garland Sci.), Brock: Biology of Microorganisms (Madigan et al., Pearson Edu.)						
Grade Evaluation Policy	Evaluation is made by the results of exam. Presentation and discussion in the class are also considered. The latter half of the class will be evaluated by contribution to discussion during class and final test.						
How to contact the instructor outside the classroom (Office Hours)	Office hours; by appointment through e-mail						
Notice for Students (Relevance to other courses)	This class is mainly for the freshmen of biological sciences course.						

Course Title	General Physiology			Course Number	V5208 (10390)	Credit	2
Instructor	Kanae Ando	2nd Semester	Wed.	4th Period	Minami-Osawa Campus		
Course Description / Theme	Multicellular organisms integrate various events in the body at the molecular, cellular, organ, and system levels to sustain life. This course will provide students a conceptual framework for understanding how their bodies work and for dealing with issues relevant to human health in the modern world. By application of biological concepts to familial experiences, this course will help students to see excitement of science and its importance in their lives.						
Knowledge & Abilities students can acquire through the class, Course Objectives	At the end of this course, students will be able to describe (1) basic concept of homeostasis, (2) the fundamental concepts of human anatomy and how the body parts work together, and (3) organization of plant body and how internal and external factors regulate their life.						
Course Schedule, Course Contents and Instruction Methods	1. Introduction, Organization and Regulation of Body Systems 2. Homeostasis and Endocrine System 3. Skeletal system 4. Muscular Systems 5. The Plant Cell and Body 6. Life Cycle of Plants 7. Digestive system 8. Review and Mid-term exam 9. Cardiovascular System: Heart and Blood Vessels 10. Cardiovascular System: Blood 11. The Lymphatic and Immune Systems 12. Immune Systems (cont.) 13. Respiratory System 14. Urinary System 15. Review and final exam						
Learning Activities outside the Classroom	Homework or review quiz will be given after each class.						
Textbooks and/or References	Campbell, Biology, A Global Approach, 10th edition (Pearson ISBN 978-1292008653) Mader, Human Biology 14th edition (McGraw-Hill, ISBN 978-1-259-25200-6) Levetin E, and McMahon K, Plants and Society (McGraw-Hill, ISBN 9780073524221). Other materials for in-class discussions may be distributed.						
Grade Evaluation Policy	Class participation&homework quiz 20% , Mid-term exam 40%, Final exam 40%						
How to contact the instructor outside the classroom (Office Hours)	Wednesday afternoon, 1-2:30pm. Or, e-mail to k_ando@tmu.ac.jp for an appointment.						
Notice for Students (Relevance to other courses)							

Course Title	General Cell Biology			Course Number	V5209 (I0386)	Credit	2
Instructor	Toshiro Aigaki • Takaomi Sakai		2nd Semester	Wed.	5th Period	Minami-Osawa Campus	
Course Description / Theme		Understanding molecular and cellular bases of biological phenomena. This course will be taught by Prof. Toshiro Aigaki (Part1) and Associate Prof. Takaomi Sakai (Part2).					
Knowledge & Abilities students can acquire through the class, Course Objectives		This lecture will provide opportunity to learn structure and function of eukaryotic cells, gene expression, and signal transduction in neural and non-neural cells in animals.					
Course Schedule, Course Contents and Instruction Methods		[Part 1] 1. Structure and function of eukaryotic cells (TA) 2. Cell growth and size (TA) 3. Cell survival and death (TA) 4. Cell metabolism (TA) 5. Tumorigenesis 1 (TA) 6. Tumorigenesis 2 (TA) 7. Discussion and tutorial (TA) 8. Review and mid-term exam (TA) [Part 2] 9. Cells of the nervous system (TS) 10. Neurotransmission 1 (TS) 11. Neurotransmission 2 (TS) 12. Neurotransmission 3 (TS) 13. Gene expression in neurons (TS) 14. Brain and behavior (TS) 15. Review (TS)					
Learning Activities outside the Classroom							
Textbooks and/or References		Handouts will be distributed to students in classes.					
Grade Evaluation Policy		Presentation and discussion 30%, Quiz or Report submission 30%, Midterm and final examinations 40%.					
How to contact the instructor outside the classroom (Office Hours)		Particular office hour is not allocated, but students can make appointments by e-mail.					
Notice for Students (Relevance to other courses)							

Course Title	Biological Information			Course Number	V5210 (I437)	Credit	2
Instructor	Hiroyuki Kawahara		2nd Semester	Mon.	1st Period	Minami-Osawa Campus	
Course Description / Theme		In this class, we will discuss the basic mechanism of cell growth and division.					
Knowledge & Abilities students can acquire through the class, Course Objectives		The purpose of this class is to understand how cell division is controlled. Since cell division is regulated by a series of protein synthesis and degradation event, machineries of protein degradation will be a core of the discussion.					
Course Schedule, Course Contents and Instruction Methods		(1) What is cell cycle? (2) Discovery of mitosis promoting factor. (3) Mitosis promoting factor in yeast. (4) Essential components of mitosis promoting factor. (5) Protein synthesis determines mitosis entry. (6) Protein degradation determines mitosis exit. (7) Summary discussion and examination (1) (8) G1/S-phase Cyclin. (9) Cyclin inhibitors and tumor suppressors. (10) Protein degradation determines the destiny of the cell. (11) Intracellular protein degradation machineries. (12) Ubiquitin-dependent protein degradation. (13) Protein ubiquitination. (14) Ubiquitin and protein quality control. (15) Summary discussion and examination					
Learning Activities outside the Classroom							
Textbooks and/or References		Essential Cell Biology, Fourth edition, Bruce Alberts et al., Garland Science. ISBN-10: 0853696470					
Grade Evaluation Policy		The score will be marked by term examinations as well as class attendance.					
How to contact the instructor outside the classroom (Office Hours)		Office hour: every Wednesday, 13:00-15:00					
Notice for Students (Relevance to other courses)							

Course Title	General Evolutional Biology			Course Number	V5211 (10430)	Credit	2
Instructor	Adam L Cronin		2nd Semester	Mon.	5th Period	Minami-Osawa Campus	
Course Description / Theme		Ecology is intimately tied with evolution, as evolutionary history defines how organisms can respond to the ecological environment, and ecology forms the selective forces which drive evolution. In this course, we explore the many ways in which evolutionary biology and ecology are connected in an introductory context.					
Knowledge & Abilities students can acquire through the class, Course Objectives		Students will develop an understanding of basic evolutionary biology, and an appreciation of how knowledge of evolutionary processes is essential to understand ecology. Students will learn how to examine ecological processes from an evolutionary perspective and how to short and long-term processes combine to produce the ecosystems we observe today.					
Course Schedule, Course Contents and Instruction Methods		1. How does evolution work pt.1 2. How does evolution work pt.2 3. Phylogenetic reconstruction pt.1 4. Phylogenetic reconstruction pt.2 5. Microevolution pt.1 6. Microevolution pt.2 7. Species and speciation pt.1 8. Species and speciation pt.2 9. Macroevolution pt.1 10. Macroevolution pt.2 11. Evolution of sex pt.1 12. Evolution of sex pt.2 13. Evolution of vertebrates 14. Review lecture 15. Exam					
Learning Activities outside the Classroom		Students will have access to lecture notes and should download these from kibaco and read them before class. Students will be given occasional tasks to perform outside of class during the semester					
Textbooks and/or References		Campbell et al. Biology: a Global Perspective 10th ed. (ISBN: 978-1-292-00865-3) (particularly units 4 and 8); Begon et al. Essentials of Ecology 4th ed. (ISBN: 978-0-470-90913-3); Bergstrom and Dugatin. Evolution 2nd ed. (ISBN: 978-0-393-93793-0)					
Grade Evaluation Policy		Assessment will be based on a written exam and in-class participation					
How to contact the instructor outside the classroom (Office Hours)		There are not set office hours: please visit my office if you have any questions or send queries by email.					
Notice for Students (Relevance to other courses)		This course will be conducted in English. Students should prepare all materials in English and will have the opportunity to discuss among themselves and with the general class in English. Students who took General Ecology II in 2017 should NOT take this course as there is significant overlap in material.					

Course Title	General Genetics			Course Number	V5212 (10388)	Credit	2
Instructor	Aya Takahashi · Kouichiro Tamura	2nd Semester	Tue.	4th Period	Minami-Osawa Campus		
Course Description / Theme	This course covers topics in classical, modern, and current genetics in eukaryotes, including introductions to approaches taken in evolutionary studies.						
Knowledge & Abilities students can acquire through the class, Course Objectives	The students should obtain basic knowledge in genetics, and should also understand the basic principles of evolution at the molecular level.						
Course Schedule, Course Contents and Instruction Methods	1. Mendel to current genetics (by AT) 2. DNA and chromosome (by AT) 3. Chromosome structure and genes (by AT) 4. Evolutionary origin of novel genes (by AT) 5. Mutation and its consequences (by AT) 6. Evolutionary changes of DNA sequences (by AT) 7. Genetic variation within population (by AT) 8. Summary and exam (by AT) 9. Genome, transcriptome and proteome (by KT) 10. Methods for genome analyses (by KT) 11. Structure of human genome (by KT) 12. Virus genome and transposable elements (by KT) 13. Transcriptome (by KT) 14. Epigenetics (by KT) 15. Summary and exam (by KT)						
Learning Activities outside the Classroom	Students are expected to review and study materials related to the topic after each class. Students should work on assignments given during the class.						
Textbooks and/or References	Handouts will be provided during the class.						
Grade Evaluation Policy	The mean score from the first and the second half will be the final grade. Students will be graded by class attendance, participation, assignments, and exams.						
How to contact the instructor outside the classroom (Office Hours)	Particular office hour is not allocated, but students can make appointments by email.						
Notice for Students (Relevance to other courses)							

Course Title	General Microbiology			Course Number	V5213 (10360)	Credit	2
Instructor	Shigeki Ehira • Shin Haruta		2nd Semester	Mon.	4th Period	Minami-Osawa Campus	
Course Description / Theme	This course covers topics in basic microbiology: microbiological methods, cell structure and function, genetics, physiology, ecology, interactions of microorganisms with human, animal, and plant, and environmental microbiology.						
Knowledge & Abilities students can acquire through the class, Course Objectives	By the end of this course, students will be able to describe microbiological methods, phylogeny, gene functions, physiology, and diversity of microorganisms, and to develop an ability to apply this knowledge to a variety of fields, healthcare, agriculture, fishery, environmental conservation, biotechnology and so on.						
Course Schedule, Course Contents and Instruction Methods	First half: Shigeki Ehira 1. Introduction to microbiology 2. Microbial genetics and genomics 3. Regulation of gene expression in bacteria 4. Environmental response in bacteria 5. Environmental acclimation in bacteria 6. Regulation of development in bacteria 7. Genetic engineering in bacteria 8. Conclusion and examination Second half: Shin Haruta 9. Microbial evolution and systematics 10. Metabolism of microorganisms 11. Metabolic diversity of microorganisms 12. Microbe-microbe interaction 13. Animal/plant-microbe interaction 14. Microbes in natural environments 15. Conclusion and examination						
Learning Activities outside the Classroom	The students are expected to review each lecture by reading hand-outs or texts. Hand-outs will be provided in the class.						
Textbooks and/or References	Hand-outs will be provided in the class. Books for reference: Essential Cell Biology (Alberts et al., Garland Sci.), Molecular Biology of the Cell (Alberts et al., Garland Sci.), Brock: Biology of Microorganisms (Madigan et al., Pearson Edu.)						
Grade Evaluation Policy	Evaluation is made by the results of exam. Presentation and discussion in the class are also considered.						
How to contact the instructor outside the classroom (Office Hours)	Office hours; by appointment through e-mail						
Notice for Students (Relevance to other courses)							

Course Title	Developmental Biology			Course Number	V5214 (I424)	Credit	2
Instructor	Kimiko Fukuda • Naohito Takatori		2nd Semester	Fri.	2nd Period	Minami-Osawa Campus	
Course Description / Theme	During embryonic development, expression of key proteins in specific cells play important roles in fate specification and morphogenesis. Developmental biologists have unraveled how this cell-specific protein expression is regulated through study of regulatory mechanism of gene expression. Understanding how this was accomplished will aid you as a researcher in various fields of research. In this class, we will study and discuss recent research on animal embryogenesis to understand how each problems and obstacles were overcome.						
Knowledge & Abilities students can acquire through the class, Course Objectives	Understanding of the function of key molecules in embryogenesis and molecular mechanisms underlying gene expression and organogenesis. Logical thinking and problem-solving ability required for research.						
Course Schedule, Course Contents and Instruction Methods	Each must read the assigned chapter from textbook and decide on a “topic” and “questions” to discuss during the class. You will be asked to present and discuss your “topic” and “questions” during class. There will be small quiz to be solved with your classmates. Submit “learning inventory” after the class. Class will be centered on asking questions, discussion and presentation. 1. Invertebrate embryogenesis (Drosophila): Maternal factors 2. Invertebrate embryogenesis (Drosophila): Early patterning 3. Invertebrate embryogenesis (Drosophila): Identity of somites 4. Summary of Drosophila development and discussion 5. Invertebrate embryogenesis: C. elegant development 6. Invertebrate embryogenesis: Sea urchin and tunicates 7. Summary of previous two classes and discussion 8. Regulation of gene expression 9. Cell differentiation 10. morphogenesis 11. Summary of previous three classes and discussion 12. Stem cells 13. Organogenesis 14. development of chick digestive tract 15. Final exam and discussion.						
Learning Activities outside the Classroom	Study of the assigned chapters prior to attendance is mandatory. There will be no “lectures” in the classical sense.						
Textbooks and/or References	Principles of Development 5th Edition by Lewis Wolpert, Cheryll Tickle, Alfonso Martinez Arias (Oxford University Press) is used as a textbook. Also, handouts will be given.						
Grade Evaluation Policy	15% will be given to questions asked during classes. 15% to discussion and presentation. 30% to after-class quiz. 40% to final exam. Only students who have participated in more than 2/3 of the classes will be allowed to take the final exam.						
How to contact the instructor outside the classroom (Office Hours)	Students can contact Dr. Takatori (takatori-naohito1@tmu.ac.jp) or Dr. Fukuda (kokko@tmu.ac.jp) for personal discussion.						
Notice for Students (Relevance to other courses)							

Course Title	Human Biology			Course Number	V5215 (X0144)	Credit	2
Instructor	Kanae Ando	2nd Semester	Mon.	6th Period	Minami-Osawa		
Course Description / Theme	Better health is central to human happiness. We are surrounded by news related to health including diseases, treatments, and new technologies. To interpret such overwhelming amount of information correctly, knowing how our bodies work and scientific thinking is critical. This course will discuss scientific knowledge in human biology to help students to make informed health decisions.						
Knowledge & Abilities students can acquire through the class, Course Objectives	The goals of this course are to provide students a foundation to understand human biology in health and disease and to develop skills in scientific thinking and constructing arguments.						
Course Schedule, Course Contents and Instruction Methods	TENTATIVE COURSE SCHEDULE: 1. Course introduction 2. Molecules that make our body 3. The nervous system 4. The skeletal system 5. The muscular system 6. Genetics and human inheritance 7. Human development and aging 8. The endocrine system 9. The blood 10. The cardiovascular and lymphatic systems 11. The respiratory systems 12. The urinary system 13. The digestive system and nutrition 14. The reproduction system 15. Body defense mechanisms FORMAT: Human health issues related to those topics will be selected and assigned to students. Assigned students will prepare presentations to provide other students biological knowledge related to the issues. The other students will listen to the talk, break into small groups to discuss the issue, then share their thoughts with the whole class.						
Learning Activities outside the Classroom	Students who are assigned to give presentations need to prepare them outside of class. Other students are expected to research topics before the class for active discussion.						
Textbooks and/or References	The lecture may use news articles. Handouts may be given at the lectures. Suggested textbook: Biology of Humans: Concepts, Applications, and Issues, 5th edition.						
Grade Evaluation Policy	Class participation 50%, Presentation 50%						
How to contact the instructor outside the classroom (Office Hours)	Office hour: Wednesday afternoon, 1-2:30pm (room 9-478). Or, please e-mail to k_ando@tmu.ac.jp for an appointment.						
Notice for Students (Relevance to other courses)							

Course Title	Neuroscience			Course Number	V5216 (I391)	Credit	2
Instructor	Kanae Ando	2nd Semester	Tue.	1st Period	Minami-Osawa Campus		
Course Description / Theme	This course will provide students the basic introduction to the structural and functional organization of the nervous system. This course has three parts: (1) we will study nerve cells: their structure, the propagation of nerve impulses and transfer of information between nerve cells. (2) We will discuss development and organization of the nervous system in mammals and their relationships to its functions. (3) we will discuss the chemical control of the brain as the bases of motivation, emotion, learning and memory.						
Knowledge & Abilities students can acquire through the class, Course Objectives	At the end of this course, students will be able to describe (1) how information are transferred from a nerve cell to another cell (2) organization and functions of the nervous system in mammal, and (3) the chemicals in the brain that control animal behavior.						
Course Schedule, Course Contents and Instruction Methods	1. Neurons and Glia 2. The Neuronal Membrane at Rest (1) 3. The Neuronal Membrane at Rest (2) 4. The Action Potential (1) 5. The Action Potential (2) 6. Synaptic Transmission (1) 7. Synaptic Transmission (2) 8. Review and mid-term exam 9. Neurotransmitter Systems (1) 10. Neurotransmitter Systems (2) 11. The structure of the nervous system (1) 12. The structure of the nervous system (2) 13. Chemical control of the brain and behavior (1) 14. Chemical control of the brain and behavior (2) 15. Review and final exam						
Learning Activities outside the Classroom	Homework or review quiz will be given after each class.						
Textbooks and/or References	Bear, Mark F., Barry W. Connors, and Michael A. Paradiso. Neuroscience: Exploring the Brain 3rd ed. Lippincott Williams & Wilkins, 2006. ISBN: 9780781760034						
Grade Evaluation Policy	Attendance and Homework 20%, Mid-term exam 40%, Final exam 40%						
How to contact the instructor outside the classroom (Office Hours)	Office hour: Wednesday afternoon, 1-2:30pm. Or, e-mail to k_ando@tmu.ac.jp for an appointment.						
Notice for Students (Relevance to other courses)							

Course Title	Biodiversity			Course Number	V5217 (I438)	Credit	2
Instructor	Noriaki Murakami	2nd Semester	Wed.	2nd Period	Minami-Osawa Campus		
Course Description / Theme	Biodiversity is one of the main targets for modern taxonomy, phylogeny, population genetics and evolutionary biology. In this lecture, recent studies on biodiversity of higher plants and fungi as well as those on evolutionary processes that produce biodiversity will be introduced.						
Knowledge & Abilities students can acquire through the class, Course Objectives	Upon completion of the class, students will be able to: 1. Explain how biodiversity of higher plants and fungi are studied now. 2. Explain how important DNA data are for recognition of biodiversity and understanding of its evolutionary origin, 3. Explain why sexual reproduction is important for production and maintenance of biodiversity. 4. Recognize importance of scientific understanding of biodiversity for its conservation.						
Course Schedule, Course Contents and Instruction Methods	Class schedule: 1. Introduction 2. Molecular phylogeny of land plants 3. Recognition of cryptic species of ferns using molecular data and crossing experiments 4. Cryptic species of fungi and their specificity for host plants 5. Phylogeography of deciduous broad-leaved forests in Japan 6. Phylogeography of evergreen broad-leaved forests in Japan 7. Evolutionary significance of sexual reproduction 8. Apogamy (Asexual reproduction through spores) in ferns 9. Population genetical studies on self fertilization of ferns 10. Endemic plant species in the Ogasawara Islands and their conservation 11. Adaptive radiation of the wild plants in Ogasawara 12. Adaptive evolution in rheophytic plants 13. Comparative method based on molecular phylogenetic trees 14. Future studies on biodiversity of plants and fungi 15. Review and Final examination Handouts will be provided in the class.						
Learning Activities outside the Classroom							
Textbooks and/or References	Handouts will be provided in the class.						
Grade Evaluation Policy	Grades will be based on class participation (20%) and your score of the final written examinations (80%). Submission of report (A4 1 page) , which was prepared at home as homework, is required after every class.						
How to contact the instructor outside the classroom (Office Hours)	Office hour: Wednesday 13:00 - 14:30						
Notice for Students (Relevance to other courses)							

Course Title	Ecosystems and Environments			Course Number	V5218 (X0142)	Credit	2
Instructor	Vera Thiel • Marcus Tank		2nd Semester	Wed.	6th Period	Minami-Osawa	
Course Description / Theme	In this class, we will explore how organisms influence and change ecosystem environments, with a special focus on the human impact on the environment and the global climate. All organisms affect and change their environment, and the strong human population growth as well as industrialization has led to an increasing impact of human activity on regional and global environments.						
Knowledge & Abilities students can acquire through the class, Course Objectives	Students will be able to identify and describe how organisms affects its environment and how human activity influences ecosystems and global climate, as well as how the changes in the environment (such as climate change and pollution) affects human lives, health and quality of living.						
Course Schedule, Course Contents and Instruction Methods (Tentative)	1. Introduction to environmental studies, previous knowledge and course overview 2. Population biology and human population growth 3. Ecosystem dynamics and succession 4. Biodiversity and ecosystem services. Why do we care? 5. Nutrient cycling and human impact 6. Pollution: chemicals and hormones 7. Pollution: light and noise 8. Urbanization, habitat destruction and city as ecosystems 9. Effects of agriculture and stock farming 10. Effects of fishing and aquaculture 11. Climate change I - facts and causes 12. Climate change II - effects 13. Climate change III - solutions 14. Summary, review, Q&A 15. Final exam.						
Learning Activities outside the Classroom	1. Students are required to access and download study material via Kibaco. 2. Students will be asked to read through specified materials before class, watch videos and/or fill out worksheets. 3. Students will be asked to research specific topics and prepare short in-class presentation. Range of the assignment(s) is explained in each class.						
Textbooks and/or References	Pearson 'Environmental Science: Towards a sustainable future' Edition 13E By Richard T. Wright and Dorothy F. Boorse Additional sources and websites will be introduced during class.						
Grade Evaluation Policy	Class attendance, participation (homework presentations and discussions) - 40% of the grade Final exam – 60% of the grade.						
How to contact the instructor outside the classroom (Office Hours)	Particular office hours are not set. Please make an appointment via e mail if you want to visit my office for a query or concern. A query by email is also acceptable. Instructors: Instructor: Dr. Vera Thiel (vthiel@tmu.ac.jp) / Dr. Marcus Tank (mtank@tmu.ac.jp)						
Notice for Students (Relevance to other courses)							

Course Title	Special Lecture in Biology b	Course Number	V5219 (I397)	Credit	1
Instructor	Vera Thiel	1st Half of 2nd Semester	Mon.	2nd Period	Minami-Osawa Campus
Course Description / Theme	We will explore different methods to analyze microbial diversity as part of microbial ecology studies. Cultivation dependent and independent methods will be introduced and discussed.				
Knowledge & Abilities students can acquire through the class, Course Objectives	At the end of this course students will understand different methods used to analyze microbial diversity. The students will be able to understand and review recent microbial ecology studies, and discuss strengths and weaknesses of the different approaches and methods for microbial diversity analyses.				
Course Schedule, Course Contents and Instruction Methods	1. Microbial diversity: Taxonomy, metabolism and phylogeny 2. Cultivation based methods: CFU (colony forming units) and MPN (most probable number) 3. Cultivation independent methods: Microscopic methods 4. Cultivation independent methods: DNA based methods 1 - DNA fingerprinting methods 5. Cultivation independent methods: DNA based methods 2 - DNA cloning and NGS amplicon analyses 6. Cultivation independent methods: DNA based methods 3 - Phylogenetic analyses 7. Cultivation independent methods: DNA based methods 4 - Metagenomic sequencing studies 8. Summary and Exam				
Learning Activities outside the Classroom	1. Students are required to read through the specified materials before class. Range of reading assignment is explained in each class. 2. Students are required to present a research paper. Papers and/or topics will be given out by the instructor.				
Textbooks and/or References	Brocks Biology of Microorganisms, General Microbiology, The Prokaryotes, Handouts, Internet.				
Grade Evaluation Policy	In class participation – 40% of the grade. Exam – 60% of the grade. * Students are expected to participate in classroom discussions *				
How to contact the instructor outside the classroom (Office Hours)	Particular office hours are not set. Please make an appointment via e mail if you want to visit my office for a query or concern. A query by email is also acceptable.				
Notice for Students (Relevance to other courses)					

Course Title	Special Lecture in Biology c			Course Number	V5220 (I398)	Credit	1
Instructor	Marcus Tank	2nd Half of 2nd Semester	Mon.	2nd Period	Minami-Osawa Campus		
Course Description / Theme	In this course we will learn about photosynthesis in prokaryotes, the different groups of phototrophic prokaryotes, their taxonomy, evolution and ecology.						
Knowledge & Abilities students can acquire through the class, Course Objectives	At the end of this course students will be able to understand the photosynthesis in bacteria, including the basic principle and the different types of light energy usages. The students will be able to distinguish and identify the different groups of phototrophic prokaryotes. The students will know about the evolution of photosynthesis and ecological importance of phototrophy.						
Course Schedule, Course Contents and Instruction Methods (Tentative)	1. Phototrophy and photosynthesis in prokaryotes 2. Anoxygenic versus oxygenic photosynthesis 3. Carbon fixation in chlorophototrophic bacteria 3. Groups of phototrophic bacteria I (Cyanobacteria) 4. Groups of phototrophic bacteria II (purple bacteria) 5. Groups of phototrophic bacteria III (green bacteria) 6. Novel phototrophic bacteria 7. Summary and discussion of open questions 8. Exam						
Learning Activities outside the Classroom	Students are required to read through the specified materials before class. Range of reading assignment is explained in each class.[Textbooks/Materials] Brooks Biology of Microorganisms, General Microbiology, The Prokaryotes, Handouts, Internet.						
Textbooks and/or References	Brooks Biology of Microorganisms, General Microbiology, The Prokaryotes, Handouts, Internet.						
Grade Evaluation Policy	Participation in class – 40% of the grade. Final exam – 60% of the grade.						
How to contact the instructor outside the classroom (Office Hours)	Particular office hours are not set. Please make an appointment via e mail if you want to visit my office for a query or concern. A query by email is also acceptable.						
Notice for Students (Relevance to other courses)							

Course Title	Special Lecture in Biology d			Course Number	V5221 (I395)	Credit	1
Instructor	Kanae Ando	1st Half of 2nd Semester	Tue.	2nd Period	Minami-Osawa Campus		
Course Description / Theme	Our society is aging, and the number of patients with age-associated diseases is growing. Recent studies revealed that accumulation of misfolded proteins may underlie the pathogenesis of many age-related neurological diseases such as Alzheimer's disease. We will discuss current understanding of molecular mechanisms underlying these diseases and therapeutic strategies.						
Knowledge & Abilities students can acquire through the class, Course Objectives	This course aims to introduce current knowledge underlying the pathogenesis of age-related neurodegenerative diseases. The format of this course is a combination of didactic lectures and student presentation. Lectures will introduce concepts, and student presentation followed by discussion will promote an understanding of analytical approaches to questions in neuroscience as well as critical scientific thinking.						
Course Schedule, Course Contents and Instruction Methods (Tentative)	Age-related neurodegenerative diseases 1. Introduction 2. Alzheimer's disease (lecture) 3. Alzheimer's disease (student presentation) 4. Parkinson's disease (lecture) 5. Parkinson's disease (student presentation) 6. Amyotrophic lateral sclerosis (lecture) 7. Amyotrophic lateral sclerosis (student presentation) 8. Review & discussion						
Learning Activities outside the Classroom	Reading journal articles for discussion and preparation for student presentation will be required.						
Textbooks and/or References	Reading materials including primary literature will be distributed in the class.						
Grade Evaluation Policy	Class participation 30%, Presentation 30%, Final report 40%						
How to contact the instructor outside the classroom (Office Hours)	Wednesday afternoon, 1-2:30pm. Or, e-mail to k_ando@tmu.ac.jp for an appointment.						
Notice for Students (Relevance to other courses)							

Course Title	Special Lecture in Biology e			Course Number	V5222 (I396)	Credit	1
Instructor	Kanae Ando	2nd Half of 2nd Semester	Tue.	2nd Period	Minami-Osawa Campus		
Course Description / Theme	The human brain is made of the billions of cells and trillions of connections and said to be the most complex object in our known universe. This course aims to introduce molecular and cellular mechanisms underlying the development of the nervous system and neurodevelopmental disorders.						
Knowledge & Abilities students can acquire through the class, Course Objectives	This course aims to encourage students to distill and synthesize the information you learn in cell biology, molecular biology and neuroscience, through discussion of current knowledge underlying the development of the brain and neurodevelopmental disorders. The format of this course is a combination of didactic lectures and student presentation. Lectures will introduce concepts, and student presentation followed by discussion will promote an understanding of analytical approaches to questions in neuroscience as well as critical scientific thinking.						
Course Schedule, Course Contents and Instruction Methods (Tentative)	Development of Nervous System and Related Disorders 1. Introduction: The genesis of neurons and connection 2. Polarity and segmentation (lecture) 3. Polarity and segmentation (student presentation) 4. Genesis and migration (lecture) 5. Genesis and migration (student presentation) 6. Determination and differentiation 7. Review and Exam						
Learning Activities outside the Classroom	Reading journal articles for discussion and preparation for presentation will be required.						
Textbooks and/or References	Development of the Nervous System by Sanes DH, Reh TA and Harris WA, Academic Press; 3 edition, (2015) 978-0123745392. Other reading materials including primary literature will be distributed at the class.						
Grade Evaluation Policy	Class participation 30%, Presentation 30%, Final exam 40%						
How to contact the instructor outside the classroom (Office Hours)	Wednesday afternoon, 1-2:30pm. Or, e-mail to k_ando@tmu.ac.jp for an appointment.						
Notice for Students (Relevance to other courses)							

Course Title	Special Lecture in Biology f			Course Number	V5223 (I273)	Credit	1
Instructor	Kouichiro Tamura	1st Half of 2nd Semester	Wed.	1st Period	Minami-Osawa Campus		
Course Description / Theme		This course covers the topic in evolutionary genomics of eukaryotes.					
Knowledge & Abilities students can acquire through the class, Course Objectives		By the end of the course, the students should know how eukaryotic genomes have been made up during the course of evolution, what were the factors contributed to make up the genomes, and how genome evolution contributed to the evolution of eukaryotic organisms.					
Course Schedule, Course Contents and Instruction Methods		1. Human genome projects 2. Structure of human genome 3. Structure and evolution of eukaryotic genomes 1 4. Structure and evolution of eukaryotic genomes 2 5. Evolution of genomes and evolution of organisms 1 6. Evolution of genomes and evolution of organisms 2 7. NGS technologies in evolutionary genomics 8. Review and exam					
Learning Activities outside the Classroom							
Textbooks and/or References		Handouts will be provided during the class.					
Grade Evaluation Policy		Final grade will be determined by class participation (10-30%) and final exams (70-90%).					
How to contact the instructor outside the classroom (Office Hours)							
Notice for Students (Relevance to other courses)		The students are recommended to take General Genetics 1, General Genetics 2 and Genetics (by Tamura and Takahashi) in advance. This lecture is for students who cannot take Japanese lectures and graduated from other university in principal. Authorization from curriculum coordinator is required to take this lecture.					

Course Title	Special Lecture in Biology g			Course Number	V5224 (I345)	Credit	1
Instructor	Shin Haruta		2nd Half of 2nd Semester	Wed.	1st Period	Minami-Osawa Campus	
Course Description / Theme		Environmental Microbiology –Ecophysiology and Ecology– This special lecture is the classes for the students of biological sciences course, dealing with basic knowledge in environmental microbiology and microbial ecology. Students will be strongly encouraged to ask questions and express opinions.					
Knowledge & Abilities students can acquire through the class, Course Objectives		The aims of this course are to learn phylogenetic and physiological diversity of microorganisms. You will also learn the role of microorganisms in natural environments. You will also learn interspecies relationships between microbe-microbe, microbe-plant, microbe-animal, and microbe-human. By the end of the course, students are expected to design and introduce a research project in environmental microbiology					
Course Schedule, Course Contents and Instruction Methods		1. Phylogenetic diversity of Bacteria and Archaea 2. Diversity of energy metabolism 3. Physiological diversity 4. Material cycles on Earth 5. Ecology and ecophysiology of prokaryotes 6. Microbe-microbe interactions 7. Interactions of microbes with plants and animals 8. Environmental biotechnology					
Learning Activities outside the Classroom		Students are expected to prepare each lecture by reading texts or research articles.(Text book)					
Textbooks and/or References		Hand-outs will be provided in the class. Books for reference: Brock: Biology of Microorganisms (Madigan et al., Pearson Edu.)					
Grade Evaluation Policy		Evaluation will be based on a final report. Presentation and discussion in the class are also considered.					
How to contact the instructor outside the classroom (Office Hours)		By appointment through e-mail					
Notice for Students (Relevance to other courses)		This lecture is for students who cannot take Japanese lectures and graduated from other university in principal. Authorization from curriculum coordinator is required to take this lecture.					

Course Title	Special Lecture in Biology h	Course Number	V5225 (I346)	Credit	1
Instructor	Toshiro Aigaki	1st Half of 2nd Semester	Thu.	2nd Period	Minami-Osawa Campus
Course Description / Theme	Breakthroughs in Life Sciences We will review the processes of scientific breakthroughs and discoveries in the filed of life sciences.				
Knowledge & Abilities students can acquire through the class, Course Objectives	To learn about scientific breakthroughs and discoveries in the filed of life sciences. To make a presentation to introduce what you investigated and what you thought. To develop the ability to discuss with your classmates.				
Course Schedule, Course Contents and Instruction Methods	Topics 1. Introduction 2. DNA, genes and genomes 3. Immune system 4. Oncogenes 5. Fluorescent proteins 6. RNA and gene expression 7. Stem cells 8. Discussion				
Learning Activities outside the Classroom					
Textbooks and/or References	Handouts will be distributed at the beginning of the class. The topics are not restricted to those mentioned above. Timely topics and those of student interests will be also included.				
Grade Evaluation Policy	Presentations and reports (50%) Questions, comments and discussions during the class hour (20%) Attendance (30%)				
How to contact the instructor outside the classroom (Office Hours)	Particular office hour is not allocated, but students can make appointments by e-mail.				
Notice for Students (Relevance to other courses)	Topics are not restricted to those described above.				

Course Title	Special Lecture in Biology i			Course Number	V5226 (I347)	Credit	1
Instructor	Aya Takahashi	2nd Half of 2nd Semester	Thu.	2nd Period	Minami-Osawa Campus		
Course Description / Theme	This course covers some current research topics in evolutionary genetics.						
Knowledge & Abilities students can acquire through the class, Course Objectives	By the end of the class, students should understand how research proceeds in the field and should be able to develop their own ideas and opinions related to the topics.						
Course Schedule, Course Contents and Instruction Methods	Following topics will be discussed in the class: 1. Genes involved in speciation 2. Evolution of adaptive traits 3. Genes in conflict 4. Detecting weak natural selection 5. Genome-wide genetic mapping 6. Comparative genomics 7. Summary and exam Students are expected to review and study materials related to the topics as out-of-class work. Handouts will be provided during the class.						
Learning Activities outside the Classroom							
Textbooks and/or References	Handouts will be provided during the class.						
Grade Evaluation Policy	Final grade will be determined by class attendance/participation 40% and exam 60%.						
How to contact the instructor outside the classroom (Office Hours)	Particular office hour is not allocated, but students can make appointments by email.						
Notice for Students (Relevance to other courses)							

Course Title	Special Lecture in Biology j	Course Number	V5227 (I431)	Credit	1
Instructor	Adam L Cronin	1st Half of 2nd Semester	Fri.	1st Period	Minami-Osawa Campus
Course Description / Theme	Many organisms live together in groups, and group-living conveys a wide range of benefits. Coordination of actions in group-living organisms represents a complex challenge, yet group-living species manage to achieve remarkable tasks, such as building complex structures, coordinated movements over long distances, and advanced decision making. Explaining how this is achieved is the focus of complex systems biology.				
Knowledge & Abilities students can acquire through the class, Course Objectives	In this course we will explore how individuals in groups can coordinate activities to produce outcomes far exceeding that which any individual could do alone. In many cases these tasks are achieved with no distinct leadership or top-down control, but via interactions at the local level, which produce emergent phenomena at the level of the group. Studies of collective behaviour are important for understanding diverse phenomena such as movements of human crowds, telecommunication networks, and the development of artificial swarm intelligence.				
Course Schedule, Course Contents and Instruction Methods	1. Introduction to complex systems 2. Advantages of groups 3. The wisdom of the crowds 4. Student presentations - collective behaviour 5. Collective behaviour in humans 6. Practical study in collective movements and leadership 7. Data analysis and perspectives				
Learning Activities outside the Classroom	Students will be provided with material to read and/or prepare before the next lecture and are expected to do their own background research of appropriate recent literature. Students will be given occasional tasks to perform outside of class during the semester				
Textbooks and/or References	Collective Animal Behaviour (2010) by David J. T. Sumpter (ISBN: 9780691148434). Other relevant literature will be presented and discussed in class.				
Grade Evaluation Policy	Assessment will be based on a written assignment based on one or more components of the course and in-class presentations.				
How to contact the instructor outside the classroom (Office Hours)	There are not set office hours: please visit my office if you have any questions or send queries by email.				
Notice for Students (Relevance to other courses)	This course will be conducted in English. Students should prepare all materials in English and will have the opportunity to discuss among themselves and with the general class in English.				

Course Title	Special Lecture in Biology k	Course Number	V5228 (I432)	Credit	1
Instructor	Adam L Cronin	2nd Half of 2nd Semester	Fri.	1st Period	Minami-Osawa Campus
Course Description / Theme	This topic will examine links between biogeography, ecology, evolution, and behaviour, and how interdisciplinary approaches can be helpful for understanding the life-history or organisms. A particular focus will be on use of a range of different techniques to explore organism biogeography.				
Knowledge & Abilities students can acquire through the class, Course Objectives	Students will gain an appreciation for how an interdisciplinary approach can be helpful in exploring a broad range of questions in ecology and evolutionary biology. We will examine how these different fields of study overlap and review studies which make use of this interdependence. Students will develop a familiarity with recent literature on biogeography and how different approaches can help generate new insights into this topic.				
Course Schedule, Course Contents and Instruction Methods	1. Interdisciplinary approaches and biogeography – an introduction 2. Field-based approaches 3. Literature discussion – field based approaches 4. Experimental approaches 5. Literature discussion – experimental approaches 6. Molecular phylogenetic approaches 7. Literature discussion – molecular phylogenetic approaches				
Learning Activities outside the Classroom	Students will be given materials to read and/or prepare before the next lecture. Relevant literature will be presented and discussed in class. Students will be given occasional tasks to perform outside of class during the semester				
Textbooks and/or References	Relevant literature will be presented and discussed in class.				
Grade Evaluation Policy	Assessment will be based on presentations in class and a written assignment on one part of the course.				
How to contact the instructor outside the classroom (Office Hours)	There are not set office hours: please visit my office if you have any questions or send queries by email.				
Notice for Students (Relevance to other courses)	This course will be conducted in English. Students should prepare all materials in English and will have the opportunity to discuss among themselves and with the general class in English.				

Course Title	Regional Environmental Studies			Course Number	V5229	Credit	2
Instructor	Toshio Kikuchi		2nd Semester	Mon.	5th Period	Minami-Osawa Campus	
Course Description / Theme		Agriculture and rural area in Japan changed drastically in the latter half of twentieth century. The present rural space is characterized by the increased role of consumption rather than the traditional activity of production. This situation may be understood as “commodification of rural spaces”.					
Knowledge & Abilities students can acquire through the class, Course Objectives		Thus this study scrutinizes the changing process and characteristics of rural spaces in Japan from the viewpoint of rural commodification. Students will be able to understand how to make commodification of rural spaces and how to make conservation of rural resources with appropriate use of regional characteristics.					
Course Schedule, Course Contents and Instruction Methods		1. Introduction 2. Concept of Commodification in Rural Spaces 3. Classification of Commodification in Japanese Rural Spaces 4. Commodification of Rural Spaces in Urban Areas 5. Commodification of Rural Spaces in Urban Fringes 6. Commodification of Rural Spaces in Outer Suburban Areas 7. Commodification of Rural Spaces in the Hinterland of Urban Areas 8. Commodification of Rural Spaces in Marginal Areas of Urban Area 9. Commodification of Rural Spaces in Mountainous Areas 10. Commodification of Rural Spaces with Development of Tourism and Recreation 11. Commodification of Rural Spaces with Development of Intensive Farming 12. Commodification of Rural Spaces as Rural Restructuring 13. Commodification of Rural Spaces as the Regulation System between Rurality and Urbanity 14. Sustainable Commodification of Rural Spaces 15. Conclusions					
Learning Activities outside the Classroom							
Textbooks and/or References		There is no textbook. Handouts will be distributed before each class.					
Grade Evaluation Policy		Comprehensive evaluation based on participation to discussions during class and the results of the test/report.					
How to contact the instructor outside the classroom (Office Hours)		Students are advised to have a good command of English, which is equivalent to TOEIC 600 or higher, in advance of taking this module. This course is especially designed for exchange students at Tokyo Metropolitan University, Tokyo University of Agriculture and Technology, Ibaragi University. This course is delivered with English.					
Notice for Students (Relevance to other courses)							

Course Title	Tourism Theories and Practice	Course Number	V5230 (X0035)	Credit	2
Instructor	Naoi, Kikuchi, Shimizu, Kawahara, Numata, Okamura, Osawa, Hihara	2nd Semester	Tue.	1st Period	Minami-Osawa
Course Description / Theme	Tourism is a composite of people, resources and businesses, which provides tourists with experiences that cannot be sought in their daily lives, and entails various impacts on visited environments. This module aims to offer students a scientific perspective of tourism management.				
Knowledge & Abilities students can acquire through the class, Course Objectives	Students will be able to understand - definitions of tourism - characteristics of tourists and resources - measures to keep a good balance between tourism promotion and conservation with appropriate use of natural and cultural resources, transportation and information.				
Course Schedule, Course Contents and Instruction Methods	1. Introduction (Naoi) 2. Concepts and definitions of tourism (Naoi) 3. Characteristics of tourists (Naoi) 4. Tourist demand (Naoi) 5. Tourism resources and their attributes (Naoi) 6. Transport planning and management in tourism (Shimizu) 7. Community-based tourism (Kawahara) 8. History of Tourism Development(Okamura) 9. Rural development and management in tourism (Kikuchi) 10. Tourism and protected areas(Numata) 11. Tourism and bioresource management(Osawa) 12. Institutional systems for tourism business and management(Hihara) 13. Management challenges for tourismbusiness (e.g.,sharing economies ,sustainability)(Hihara) 14. The effects of touristic elements on visitors' evaluation of destinations (Naoi) 15. Wrap-up Class methods: To be based on lectures. Some works (interviews, discussions, and questionnaire surveys) will be involved.				
Learning Activities outside the Classroom	Students are requested to understand basic academic terms in advance of each lecture.				
Textbooks and/or References	To be advised during the lectures.				
Grade Evaluation Policy	To be based on a term-end paper (100%), which will be evaluated in light of the strucure, reference to lectures and past studies, presentation of concrete cases, and the logiclity of the arguments.				
How to contact the instructor outside the classroom (Office Hours)	Students are advised to have a good command of English, which is equivalent to TOEIC 700 or higher, in advance of taking this module. Students who have questions regarding this module are requested to make an appointment with each lecturer.				
Notice for Students (Relevance to other courses)					

Course Title	Transport Planning and Management for Tourism Promotion	Course Number	V5231 (K423)	Credit	2
Instructor	Tetsuo Shimizu	2nd Semester	Wed.	1st Period	Minami-Osawa Campus
Course Description / Theme	Transport system is inevitable for tourism promotion in regions and cities. Planning a sustainable transport system requires fundamental knowledge in various study fields. This course provides knowledge especially on engineering, economics and management methods which have the most important roles in the transport planning process.				
Knowledge & Abilities students can acquire through the class, Course Objectives	Students will be able to acquire engineers' sense and ideas on process management on making a transport system which is inevitable to be a transport planner.				
Course Schedule, Course Contents and Instruction Methods	【Course Contents】 Part 1: Introduction to Transport Planning and Management 1)The reality of transport planning and management 2)The framework of transport planning and management Part 2: Understanding of Transport System from Economical and Policy Aspect 3)Transport policy – business environment and regulation/deregulation 4)Cost structure for transport business 5)Theory on fare/toll setting Part 3: Understanding of Transport System from Technological Aspect 6)Capacity in transport system 7)Transport network and facility design 8)Transport terminal design Part 4: Understanding of Transport System from Planning Aspect 9)Travel behavioral analysis (1) 10)Travel behavioral analysis (2) 11)Travel behavioral analysis (3) Part 5: Presentation and Summary 12)Preparation(1) 13)Preparation(2) 14)Presentation 15)Summary -Future of Transport Planning and Management 【Teaching Method】 We have interactive classroom lectures from the first till the eleventh lecture slots. In the last part of each lecture, students are requested to submit a feedback sheet. We also have a group work lectures with survey, discussion and presentation from the twelfth to the fifteenth lecture slots. 【Self-study】 Students are requested to read designated references before each lecture. Materials will be uploaded in the kibaco system in advance.				
Learning Activities outside the Classroom	None				
Textbooks and/or References	To be introduced in the course. The course will be taught in powerpoint presentation based. Materials will be distributed before the lecture in the kibaco system.				

Grade Evaluation Policy	No year-end test will be undertaken. Quality of feedback sheet are a part of the grading (15%). Totally three intermediate written assignments will be given for the grading (60%). These assignments should be written either English or Japanese. As well, in the last part of the course, presentation will be requested for grading (25%).
How to contact the instructor outside the classroom (Office Hours)	There is no scheduled office hour, then please contact to lecturer for making appointment by e-mail (t-sim@tmu.ac.jp) if you have any inquiry.
Notice for Students (Relevance to other courses)	Students are advised to have a good command of English, which is equivalent to TOEIC 700 or higher, in advance of taking this course.

Course Title	Experimental Photography			Course Number	V5232	Credit	2
Instructor	Verl Adams		2nd Semester	Tue.	3rd Period	Minami-Osawa Campus	
Course Description / Theme	Japan is a world leader in photographic technology and Tokyo is a major cultural center. This context presents students with a unique environment in which to explore photography. This class will offer students an opportunity to develop their own unique approaches to photography by encouraging them to experiment with different techniques and methods.						
Knowledge & Abilities students can acquire through the class, Course Objectives	By the end of the class students should have an understanding of how photography can be used to creatively interpret their environments and explore ideas.						
Course Schedule, Course Contents and Instruction Methods	1. Class Introduction, What is Experimental Photography? 2. Basics of Photography (Bring Camera to Class) 3. History of Photography 4. Tokyo Photography 5. Street Photography 6. Photographic Techniques 7. Class Field Photography (Bring Camera to Class) 8. Individual Field Work 9. Presentation and Critique of Field Work 10. Student Experimental Photographic Proposals 11. How to Find Your Focus and Develop Your Work 12. Preliminary Presentation and Critique of Work 13. Post-Production and Photoshop 14. Final Presentation and Critique of Work 15. Conclusion * Note: This schedule is subject to change.						
Learning Activities outside the Classroom	Students will be expected to spend time outside of the classroom taking photographs and improving their photographic skills and techniques.						
Textbooks and/or References	There is no textbook for this class. Students will be expected to research precedents for their work.						
Grade Evaluation Policy	Attendance / Participation / Preparedness: 40% Photographic Work: 60%						
How to contact the instructor outside the classroom (Office Hours)	For office appointments, please contact. Email: adams.tmu@gmail.com						
Notice for Students (Relevance to other courses)	*Students must have their own camera that they can use during the class. *This class will be taught in English.						

Course Title	Introduction to Aerospace Engineering 2			Course Number	V5233 (L0601)	Credit	2
Instructor	M.Asai, T.Tagawa, N.Watanabe, K.Kitazono, H.Takegahara, A.Inasawa, T.Sakurai, H.Kojima, N.Takeichi, H.Sahara, M.Kanazaki, T.Ushio		2nd Semester	Fri.	5th Period	Minami-Osawa Campus	
Course Description / Theme		Aerospace engineering and technologies are nowadays popular and important in not only our social activities but also our individual daily life. Aerospace engineering and technologies are divided into the following six themes and each theme is explained by relevant specialists in Department of Aeronautics and Astronautics. We not only introduce basic introductory explanation but also comment on the latest state-of-the-art technologies those are actively studied.					
Knowledge & Abilities students can acquire through the class, Course Objectives		The following six themes of aerospace technologies will be lectured. - Aerodynamics and Fluid Dynamics - Structures and Materials - Propulsion Systems - Guidance, Control and Dynamics - Systems Design Engineering - Space Utilization Technology Students can obtain not only introductory knowledge but also latest research activities in each theme.					
Course Schedule, Course Contents and Instruction Methods		The contents of this lecture are as follows (order may be changed) : (1) Aerospace Fluid Dynamics: Part-1 (2) Aerospace Fluid Dynamics: Part-2 (3) Aerospace Materials Science (4) Aerospace Structure Engineering (5) Aerospace Guidance and Control : Part-1 (Spacecraft Dynamics and Control) (6) Aerospace Guidance and Control : Part-2 (Flight Dynamics, Air Traffic Management) (7) Aerospace Propulsion : Part-1 (Electric Propulsion) (8) Aerospace Propulsion : Part-2 (Air Breathing Propulsion, Aerodynamic Sound) (9) Aerospace Propulsion : Part-3 (Chemical Propulsion and Rockets) (10) Aerospace Design Engineering : Part-1 (Space Systems, Small Satellite Design) (11) Aerospace Design Engineering : Part-2 (Computer Aided Design in Aerospace Engineering) (12) Space Applications: Space Remote Sensing, Weather Monitoring (13) Facilities Tour: Introduction of six laboratories (14) Summary and Discussion (15) Feedback from professors with respect to the students' reports 【Lecture style】 Omnibus style: Each professor will lecture topics in their research field.					
Learning Activities outside the Classroom		Students are highly advised to study the lectured topics in detail at the library and through the Internet by themselves.					
Textbooks and/or References		No specific textbooks are used. Materials may be provided by professors if needed.					

Grade Evaluation Policy	The grade is determined by evaluating the contents of report: the validity and consistency of discussion, universality of assertion, and the number of attendance. The attendance to the facilities tour is mandatory. Grade evaluation weighting: report: 70%, attendance: 30%.
How to contact the instructor outside the classroom	【Office hours】 should contact each professor via email if needed.
Notice for Students (Relevance to other courses)	【Relationship with other subjects】 It is highly desired to have taken "Introduction to Aerospace Engineering 1".

Course Title	Cultural Psychology			Course Number	V5234	Credit	2
Instructor	TBA	2nd Semester	TBA	TBA	Minami-Osawa Campus		
Course Description / Theme	Detailed Information will be announced by the time 2nd semester starts.						
Knowledge & Abilities students can acquire through the class, Course Objectives							
Course Schedule, Course Contents and Instruction Methods							
Learning Activities outside the Classroom							
Textbooks and/or References							
Grade Evaluation Policy							
(Office Hours)							
Notice for Students (Relevance to other courses)							

Course Title	Intercultural Communication and Interaction	Course Number	V5235 (X0071)	Credit	2
Instructor	TBA	2nd Semester	Wed.	5th Period	Minami-Osawa
Course Description / Theme					
Knowledge & Abilities students can acquire through the class, Course Objectives					
Course Schedule, Course Contents and Instruction Methods	Detailed Information will be announced by the time 2 nd semester starts.				
Learning Activities outside the Classroom					
Textbooks and/or References					
Grade Evaluation Policy					
How to contact the instructor outside the classroom (Office Hours)					
Notice for Students (Relevance to other courses)					

Course Title	Current Issues of Education in Japan	Course Number	V5236	Credit	2
Instructor	Ikuko Okamura	2nd Semester	Thurs.	3rd Period	Minami-Osawa Campus
Course Description / Theme	This course will require students to build up the action plans for improvement of Japanese education, which has suffered from some serious problems such as a decline in academic ability, bullying, lack of global mind etc.. Towards the goal, each student is expected to share their knowledge and wisdom about success and failure of their home-country education system with the others and contribute to active discussions among them for ideal solutions.				
Knowledge & Abilities students can acquire through the class, Course Objectives	The students will have to understand deeply the followings through completion of the tasks; 1. Japanese society, culture, social structure, national character, etc. 2. Relationship between social problem and education environments 3. the way to find ideal solution by practice of comparative education 4. the differences among the education systems of each country				
Course Schedule, Course Contents and Instruction Methods	1. Introduction of the course (Course overview and expectations) 2. Educational system in Japan and other countries #1 (Focus on Juku and entrance exam system①) 3. Educational system in Japan and other countries #2 (" ②) 4. Current issues of Education in Japan #1 (Ijime and Hikikomori①) 5. Current issues of Education in Japan #2 (" ②) 6. Current issues of Education in Japan #3 (Japanese Job Hunting~Shuukatsu ①) 7. Current issues of Education in Japan #4 (" ②) 8. Globalization and Japanese Education #1 (English education①) 9. Globalization and Japanese Education #2 (" ②) 10. Japanese students' experiences of Schooling #1 (Minorities①) 11. Japanese students' experiences of Schooling #2 (" ②) 12. Discussion 13. Group (or individual) project presentations #1 14. Group (or individual) project presentations #2 15. Course conclusions and reflections				
Learning Activities outside the Classroom	We will go on some field trips to observe the actual Japanese education scenes.				
Textbooks and/or References	“Japanese education in an era of Globalization: Culture, politics and equity”, Gary DeCoker and Christopher Bjork: Teachers College Columbia University(2013) “Education in contemporary Japan: Inequality and diversity”, Kaori Okano, Motonori Tsuchiya: Cambridge University Press(1999)				
Grade Evaluation Policy	Class Participation (Attendance, Discussion and group work) 40% Presentation 30% Final Report 30%				
How to contact the instructor outside the classroom (Office Hours)	Office Hour : Tuesday 15:00-16:00, #204 @International House . Please make a reservation by e-mail before coming.(e-mail: iokamura@tmu.ac.jp)				
Notice for Students (Relevance to other courses)					

Course Title	Introduction to Japanese Studies II			Course Number	V5237	Credit	2
Instructor	L.Sasaki, H. Kawahara et al.		2nd Semester	Mon.	2nd Period	Minami-Osawa Campus	
Course Description / Theme	In this course, students will have opportunities to explore some exclusive aspects of Japan and Tokyo from an academic perspective. Each semester, we look into three key topics. Each topic contains three components: 1. Lecture A lecture is provided by a faculty member or a specialist on the issue, offering basic knowledge of the topic. 2. 1-day field trip We visit places relevant to the topic in order to understand the real situation. Depending on the topic, students will conduct some research such as interviews or observation. 3. Presentation and report Based on the lecture and fieldwork, students are required to submit one report per topic and give one presentation on the topic of their choice.						
Knowledge & Abilities students can acquire through the class, Course Objectives	Through this course, you will learn and acquire: • Knowledge about technology, mind-set, or social system unique to Japan or Tokyo. • Comprehensive understanding of specific topics concerning Japan and Tokyo. • Deeper insight into Japanese culture.						
Course Schedule, Course Contents and Instruction Methods	1. Introduction 2. Lecture 1 Edo: lessons in sustainability 3. Field Trip 1 4. Lecture 2 Tokyo's tourism resources: a reappraisal 5. Field Trip 2 6. Lecture 3 Japanese traditional fermentation technology 7. Field Trip 3 8. Student Presentations 1 9. Student Presentations 2; overview and conclusions Please note that lectures and presentation are held on Monday 2nd period, and fieldwork is conducted on Saturday, Sunday, or no-class days. The detailed schedule will be provided at the introductory session (first day of class).						
Learning Activities outside the Classroom	Fieldwork: 1 day field trip to some location relevant to the topic, where students directly observe the reality in the field and conduct surveys/interviews.						
Textbooks and/or References	References and other reading materials will be provided in class.						
Grade Evaluation Policy	Participation (attendance, contribution, assignments) = 50% Presentation = 25% Reports = 25%						
How to contact the instructor outside the classroom: office hours	Dr. Sasaki: office hours Thursday 10:00-12:00 (by appointment only) e-mail: lisasaki@tmu.ac.jp Dr. Kawahara: office hours Thursday 10:00-12:00 (by appointment only) e-mail: hkawa@tmu.ac.jp						
Notice for Students (Relevance to other courses)	For detailed instructions, students must attend the first day of class. Lectures and fieldwork are subject to change depending on the number of participants. Participants will bear the cost of fieldwork, such as transportation, admission tickets, food, etc.						

Course Title	Contemporary Japanese Society II			Course Number	V5239	Credit	2
Lecturer	Masaya Shijo	2 rd Semester	Friday	3 rd Period	Minami-Osawa Campus		
Subject Teaching Policy Theme	This course involves an examination and a discussion of socio-cultural topics pertinent to contemporary Japanese Society. By looking into various aspects of Japanese life, this is an opportunity that will allow us to comprehend the meaning of cultural/social diversity of human society. Students are also needed to be well prepared for a discussion by completing each reading assignments before every class.						
Knowledge & skills students can obtain through the class, objective of the course	This is a discussion-based course in which topics are prepared by the instructor. Each student is assigned to conduct a presentation in front of the class followed by a class discussion. Students will and are expected to require skills to explain the Japanese culture/society, and also one's original society, based on an academic analysis.						
Schedule and contents of course	1. Introduction 2. How do we reach "Contemporary Japanese Society": Methodological issues 3. The Japanese Mind(1) 4. The Japanese Mind(2) 5. The Japanese Mind(3) 6. The Japanese Mind(4) 7. Diversity and Unity in Education in Japan 8. Minority Groups: Ethnicity and Discrimination in Japan 9. Varieties in Work and Labor in Japan 10. Ainu and Okinawan People in Japan 11. A New Role for Japanese Fathers in Japan 12. "Indigenous" in Japan(1) 13. "Indigenous" in Japan(2) 14. Group presentations 15. Conclusion						
Text or reference books	Sugimoto, Yoshio, 2014, <i>An Introduction to Japanese Society (Fourth Edition)</i>, Melbourne: Cambridge University Press. (ISBN-10: 1107626676) Hendry, Joy, 2013, <i>Understanding Japanese Society (Fourth Edition)</i>, London and New York: Routledge. (ISBN-10: 0415679141) Davis, Roger and Osamu Ikeno, 2002, <i>The Japanese Mind: Understanding Contemporary Japanese Culture</i>, Tuttle Publishing. (ISBN-10: 0804832951)						
Performance Evaluation	Attendance/Class participation 15% Feedback paper at the end of each class 30% Presentation 15% Final Report 40%						
Remarks	Assignments and a presentation schedule are explained during the class.						

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