

JUSST Class Time-Table for Fall Semester, 2009
平成21年度秋学期（後期） 短期留学プログラム時間割

Day 曜日	Period 授業時間	Subject 授業名	Department 学科等	Lecturer 教員名	Class Room 教室	Note 備考
Mon 月	1	Communication Systems	CIPE	Noboru TOYAMA (外山 昇)	西(W)1-217	
	2	Radio Wave Engineering	CIPE	Noboru TOYAMA (外山 昇)	西(W)1-217	
	3	Parallel Computation	C	Shigeyoshi WATANABE (渡邊 成良)	GR-807	
	4	Quality and Reliability Engineering: The Japanese Way	T	Kazuyuki SUZUKI (鈴木 和幸), Lu JIN(金 路)	西(W)5-209	
	5	VLSI Devices and Technology	E	Shinji NOZAKI (野崎 眞次)	西(W)3-407	注1
	6	UEC Academic Skills IV B (Comprehensive Reading & Summary Writing)	CIPE	Masahisa SUZUKI (鈴木 雅久)	旧学生会館101	
Tue 火	1					
	2	Japanese Language (日本語)	CIPE		C-building	*
	3	Japanese Language (日本語)	CIPE		C-building	*
	4	Japanese Language (日本語)	CIPE		C-building	*
	5	Modern Optics and Photonics	E	Yasuo TOMITA (富田 康生)	西(W)2-201	
	6	Nanophotonics	E	Yoshiko OKADA (岡田 佳子)	未定	
Wed 水	1					
	2	UEC Academic Skills I B (Computer Literacy)	CIPE	Masahisa SUZUKI (鈴木 雅久)	情報基盤センター(GR-102)	
	3	Japanese Language (日本語)	CIPE		C-building	*
	4	Japanese Language (日本語)	CIPE		C-building	*
	5	Introduction to Digital Signal Processing	CIPE	Nobuo HAMANO (濱野 亘男)	東(E)1-806	*
	6	UEC Academic Skills V B (Maths & Scientific Writing)	CIPE	Masahisa SUZUKI (鈴木 雅久)	旧学生会館101	
Thu 木	2	Experimental Electronics Laboratory #1/3	F	Shigeo HAYASHI (林 茂雄)	東(E)6-217	
		Lifelong Learning in Sports				
	3	Experimental Electronics Laboratory #2/3	F	Shigeo HAYASHI (林 茂雄)	東(E)6-217	
		Lifelong Learning in Sports				
	4	Experimental Electronics Laboratory #3/3	F	Shigeo HAYASHI (林 茂雄)	東(E)6-217	
		Computer Graphics Software, Hardware and Application	J	Naoki HASHIMOTO (橋本 直己)	西(W)9-116	
	5					
	6	UEC Academic Skills II B (Cross-Cultural Communication)	CIPE	Masahisa SUZUKI (鈴木 雅久)	旧学生会館101	
Fri 金	1	Japanese Language (日本語)	CIPE		C-building	*
	2	Japanese Language (日本語)	CIPE		C-building	*
	3	UEC Academic Skills III B (Research & Presentation)	CIPE	Masahisa SUZUKI (鈴木 雅久)	情報基盤センター(GR-102)	
	4	TV Broadcasting Engineering	CIPE	Noboru TOYAMA (外山 昇)	西(W)1-217	
	5	Communication Systems Laboratory	CIPE	Noboru TOYAMA (外山 昇)	西(W)1-217	
	6					

Department 学科等

C:Information and Communication Engineering (情報通信工学科)
J:Computer Science (情報工学科)
E:Electronic Engineering (電子工学科)
F:Applied Physics and Chemistry (量子物質工学科)
M:Mechanical Engineering and Intelligent Systems (知能機械工学科)
T:Systems Engineering (システム工学科)
H:Human Communication (人間コミュニケーション学科)
CIPE:Center for International Programs and Exchange (国際交流推進センター)

Period 授業時間

1: 9:00-10:30
2: 10:40-12:10
3: 13:00-14:30
4: 14:40-16:10
5: 16:15-17:45
6: 17:50-19:20
7: 19:30-21:00

* Regular Undergraduate Students
are unable to attend
学部生の聴講不可

※注1の授業科目は、授業担当教員に
受講要件を確認してください。

JUSST Class Descriptions for Fall Semester, 2009

Lecture Code	2009BJ01
Lecture Title	Elementary Japanese I
Credit	6 ([Contact Hour: 9.0h/w + Self-Study Hour: 3.0 h/w] x 15 weeks)
Day of Class	Tuesday #2, #3, #4 Wednesday #2 #3 & Friday #1 & #2
Lecturer Name	Section of Japanese Language and Japanese Culture
Extension	
E-mail	
Textbook	
Pre-requirement	NIL: There is a placement test for Japanese Classes.
Course Description	
Lecture Code	2009BJ02A
Lecture Title	Elementary Japanese II
Credit	6 ([Contact Hour: 9.0h/w + Self-Study Hour: 3.0 h/w] x 15 weeks)
Day of Class	Tuesday #2, #3, #4 Wednesday #2 #3 & Friday #1 & #2
Lecturer Name	Section of Japanese Language and Japanese Culture
Extension	
E-mail	
Textbook	
Pre-requirement	NIL: There is a placement test for Japanese Classes.
Course Description	Elementary Japanese II is designed for students who completed Elementary Japanese I or who have equivalent standards with over 150 Kanji vocabulary.
Lecture Code	2009BJ03A
Lecture Title	Intermediate Japanese Language I
Credit	6 ([Contact Hour: 9.0h/w + Self-Study Hour: 3.0 h/w] x 15 weeks)
Day of Class	Tuesday #2, #3, #4 Wednesday #2 #3 & Friday #1 & #2
Lecturer Name	Section of Japanese Language and Japanese Culture
Extension	
E-mail	
Textbook	
Pre-requirement	NIL: There is a placement test for Japanese Classes.
Course Description	Intermediate Japanese Language I is designed for students who completed Elementary Japanese II or who have equivalent standards with over 300 Kanji vocabulary and reasonable communication skills.
Lecture Code	2009BQ01
Lecture Title	UEC Academic Skills I B (Computer Literacy)
Credit	2 ([Contact Hour: 1.5h/w + Exercise Hour: 2.5h/w] x 15 weeks)
Day of Class	Wednesday #2
Lecturer Name	Dr Masahisa SUZUKI
Extension	5746

E-mail	suzuki@fedu.uec.ac.jp
Textbook	
Pre-requirement	
Course Description	UEC Academic Class is designed to give you some grapes of all sorts of computer experience. It aims to give you an opportunity to get familiar with very basic computer skills for Academic Work and Study. You will learn introductory parts of UNIX Networking Computer, Fortran, C Language, TeX and HTML (Homepage Making). No advanced contents will be taught, but it is a core subject for all new JUSST Students.
Lecture Code	2009BQ02
Lecture Title	UEC Academic Skills II B (Cross-Cultural Communication)
Credit	2 ([Contact Hour: 1.5h/w + Exercise Hour: 2.5h/w] x 15 weeks)
Day of Class	Thursday #6
Lecturer Name	Dr Masahisa SUZUKI
Extension	5746
E-mail	suzuki@fedu.uec.ac.jp
Textbook	
Pre-requirement	
Course Description	You will learn a presentation skill for oral / poster presentation. At the end of semester, all new/senior JUSST Students are required to give a presentation on their major study and research. New JUSST Students will be required to give poster presentation with 1-2 panel space given. Senior JUSST Students of Postgraduate will be required to give an oral presentation for 20 minutes. No advanced contents will be taught, but it is a core subject for all new JUSST Students.
Lecture Code	2009BQ03
Lecture Title	UEC Academic Skills III B (Research & Presentation)
Credit	2 ([Contact Hour: 1.5h/w + Exercise Hour: 2.5h/w] x 15 weeks)
Day of Class	Friday #3
Lecturer Name	Dr Masahisa SUZUKI
Extension	5746
E-mail	suzuki@fedu.uec.ac.jp
Textbook	
Pre-requirement	
Course Description	This Class is also a core subject for all JUSST Exchange Students in their SECOND semester. This class focuses attention on the exercise of strategic research project. Students are required to carry out a study/research project for more than a half of year with a specific topic. Then, they have to proceed their own project after they choose their own topic and make a monthly plan. At the end of semester, there will be an international mini-conference that has participants of all new and senior JUSST Exchange Students and other regular UEC Students. Students are required to give a presentation on their projects that they decide at the beginning of class. Postgraduate Students will be required to give an oral presentation for 20 minutes in the conference.
Lecture Code	2009BQ04
Lecture Title	UEC Academic Skills IV B (Comprehensive Reading & Summary Writing)
Credit	2 ([Contact Hour: 1.5h/w + Exercise Hour: 2.5h/w] x 15 weeks)
Day of Class	Monday #6
Lecturer Name	Dr Masahisa SUZUKI and Associates
Extension	5746
E-mail	suzuki@fedu.uec.ac.jp

Textbook	
Pre-requirement	
Course Description	In this class, you will learn comprehensive reading skills and summary skills for scientific and business purpose. Every week, you will do short or long article reading on scientific and business topics. We expect that you will increase your vocabulary and pick-up skills of keywords in a text. No advanced contents will be taught, but it is a core subject for all new JUSST Students.
Lecture Code	2009BQ05
Lecture Title	UEC Academic Skills V B (Maths & Scientific Writing)
Credit	2 ([Contact Hour: 1.5h/w + Exercise Hour: 2.5h/w] x 15 weeks)
Day of Class	Wednesday #6
Lecturer Name	Dr Masahisa SUZUKI and Associates
Extension	5746
E-mail	suzuki@fedu.uec.ac.jp
Textbook	
Pre-requirement	High School Maths
Course Description	In this class, you will develop your mathematical writing skills and scientific writing skills through many writing exercises. Teachers and tutors will correct your writing every week in/out of this class. High School Maths books will be used for the beginning of semester. You will probably be able to read out most university maths expressions by the end of this semester. IELTS base English writing exercise will also be carried out in this class. No advanced contents will be taught, but it is a core subject for all new JUSST Students.
Lecture Code	2009BTLA01
Lecture Title	Parallel Computation
Credit	2 ([Contact Hour: 1.5h/w + Exercise Hour: 0.5h/w] x 15 weeks)
Day of Class	Monday #3
Lecturer Name	Prof. Shigeyoshi WATANABE
Extension	5243
E-mail	watanabe@ice.uec.ac.jp
Textbook	None
Pre-requirement	None
Course Description	This course covers the fundamental subjects of parallel computer architectures and parallel algorithms. In the lecture several topics of parallel computation were introduced and typical problems were given to students. The topics includes the simulation of artificial life and multi agent systems which demonstrate the interaction between animals in a field or an artificial stock market and which are originated by the lecturer. (Assessment Policy) Three assignments as homework were given to all students and the results were assessed. The grade was determined by the assessment and the attendance record.
Lecture Code	2009BTLC01
Lecture Title	VLSI Devices and Technology
Credit	2 ([Contact Hour: 1.5h/w + Exercise Hour: 0.5h/w] x 15 weeks)
Day of Class	Monday #5
Lecturer Name	Prof. Shinji NOZAKI
Extension	5279
E-mail	nozaki@ee.uec.ac.jp
Textbook	The handouts will be given in the class.

Pre-requirement	semiconductor physics or equivalent courses
Course Description	(Objectives) (Objectives) This course consists of series of lectures and labs covering device physics of silicon bipolar transistors and MOSFET's and VLSI process technology and exposes you to state-of-the-art semiconductor process equipment in the clean room. (Outline of Class and Contents) This will include the following topics: (a) Bipolar transistors, (b) MOS capacitors, (c) MOSFET's, (d) CCD's, MOS memories (DRAM, SRAM, EPROM, Flash), and (e) VLSI process technology (Assessment Policy) Assessment of the student performance in the class will be made based on grades on the lab report (20 %), mid-term take-home exam (40 %) and final exam (40 %).
Lecture Code	2009BTLC02
Lecture Title	Modern Optics and Photonics
Credit	2 ([Contact Hour: 1.5h/w + Exercise Hour: 0.5h/w] x 15 weeks)
Day of Class	Tuesday #5
Lecturer Name	Prof. Yasuo TOMITA
Extension	5164
E-mail	ytomita@ee.uec.ac.jp
Textbook	Instructor's notes will be provided. Material will also be taken from the following optional textbooks: 1) A.Yariv, Optical Electronics in Modern Communications, Oxford Univ. Press, Oxford, 1997. 2) S.G. Lipson et al., Optical Physics, 3rd ed., Cambridge Univ. Press, Cambridge, 1995. 3) B.E.A. Saleh and M.C. Teich, Fundamentals of Photonics, Wiley, New York, 1991.
Pre-requirement	A good understanding of introductory electromagnetics and linear systems theory may be helpful.
Course Description	(Objectives) This is an introductory-level course in the ever-increasing field of modern optics. It includes ray- and wave-descriptions of light propagation and image formation with coherent light. An introduction to holography and optical information processing is also given as an example of parallel and multi-dimensional data handling capabilities of light. Furthermore, it contains discussions of photonic devices (such as lasers, amplifiers, light modulators and detectors) and fiber-optic communications systems. (Outline of Class and Contents) Topics in 90-minute lectures will include: 1. Geometrical (ray) optics 2. Wave optics 3. Fourier optics 4. Electromagnetic and crystal optics 5. Guided-wave and fiber optics 6. Introduction to fiber-optic communications (Assessment Policy) The grades will be based 20% on the homework, 30% on the mid-term exam and 50% on the final exam.
Lecture Code	2009BTLD02
Lecture Title	Experimental Electronics Laboratory
Credit	3 ([Contact Hour: 4.5h/w + Exercise Hour: 1.5h/w] x 15 weeks)
Day of Class	Thursday #2, #3 & #4
Lecturer Name	Prof. Shigeo HAYASHI
Extension	5496
E-mail	hays@pc.uec.ac.jp
Textbook	Laboratory Manual (free)
Pre-requirement	None
Course Description	(Objectives)

	This course aims for providing the students, who may have no practical knowledge of electrical circuits, with the basics of electronics. (Outline of Class and Contents) The student builds every other week the following six electrical circuits on the solderless breadboard and measure and analyze various properties: 1) Transformer-coupled circuits involving C or L 2) Transformer-coupled resonant circuits involving L and C 3) Op-amp based circuits with application to analog filter 4) DC and AC characteristics of transistor 5) Single-stage transistor amplifier 6) Logic gates featuring RS-flip flop and full adder Prelab lectures are given in the no-experiment week after the reports on the preceding subject have been assessed. An optional project, Z80-based single-board computer and machine-language programming, is also available. (Assessment Policy) It is mandatory to finish all the projects listed above. Each project will not be considered to be completed until the student submits a report on the project, which is subject to quick, oral interrogation. The report will be assessed.
Lecture Code	2008BTLR01
Lecture Title	Introduction to Digital Signal Processing
Credit	2 ([Contact Hour: 1.5h/w + Exercise Hour: 0.5h/w] x 15 weeks)
Day of Class	Wednesday #5
Lecturer Name	Prof. Nobuo HAMANO
Extension	5813
E-mail	n-hamano@office.uec.ac.jp
Textbook	Discrete-Time Signal Processing, 2nd edition A.V. Oppenheim et al., Prentice-Hall
Pre-requirement	Fundamental knowledge of AC circuits and linear systems is helpful.
Course Description	(Objectives) An increasing number of electronic systems today, to name a few: television, audio and wireless communication systems, rely heavily on digital signal processing technologies for achieving their superb performance and sophisticated functionalities. Aim of this course is to introduce the basic concepts and techniques underlying the digital signal processing along with a few examples of practical applications. (Outline of Class and Contents) The course will focus on fundamental concepts of discrete-time signals and systems including the following subjects: (1) Discrete-time representation of signals (2) Z-transform and discrete-time system analysis (3) Sampling and aliasing (4) Transform analysis of linear time-invariant systems (5) Design of IIR and FIR filters (6) Discrete Fourier Transform and Discrete Cosine Transform (7) Topical subjects (Assessment Policy) Final exam:50%, Homeworks:40% , Attendance: 10%.
Lecture Code	2009BTLR05
Lecture Title	TV Broadcasting Engineering
Credit	2 ([Contact Hour: 1.5h/w + Exercise Hour: 0.5h/w] x 15 weeks)
Day of Class	Friday #4
Lecturer Name	Prof. Noboru TOYAMA
Extension	5744
E-mail	toyama@fedu.uec.ac.jp

Textbook	Printed materials will be given.
Pre-requirement	None. All the students who are interested in broadcasting are will come.
Course Description	This course will cover the fundamental principles of Broadcasting Systems. Subjects to be covered will include; 1. Basic terrestrial broadcasting system, 2. Basic satellite broadcasting system, 3. Basic Digital satellite broadcasting system, 4. Basic terrestrial digital broadcastng system, 5. Introduction to the state-of-the-art broadcasting technologies such as Large-Screen Plasma Display, Mobile receiver, SNG, etc. 6. Hot topics on recent broadcasting engineering will be introduced in the class. All students in the class will participate in discussions. (Assessment Policy) Report, final examination and attendance rate.
Lecture Code	2009BTLR06
Lecture Title	Radio Wave Engineering
Credit	2 ([Contact Hour: 1.5h/w + Exercise Hour: 0.5h/w] x 15 weeks)
Day of Class	Monday #2
Lecturer Name	Professor Noboru TOYAMA
Extension	5744
E-mail	toyama@fedu.uec.ac.jp
Textbook	
Pre-requirement	
Course Description	This course will cover basic ideas of radio waves, radio propagation and antennas. The subject will include the following: 1. Fundamentals of Electromagnetic Theory 2. Characteristics of Electromagnetic Waves 3. Wave Propagation 4. Antennas 5. Recent Topics of Radio Waves and Antennas 6. Some experiments on the selected items from the above will also be given.
Lecture Code	2009BTLR07
Lecture Title	Communication Systems
Credit	2 ([Contact Hour: 1.5h/w + Exercise Hour: 0.5h/w] x 15 weeks)
Day of Class	Monday #1
Lecturer Name	Prof. Noboru TOYAMA
Extension	5744
E-mail	toyama@fedu.uec.ac.jp
Textbook	Modern Digital and Analog Communication Systems, Third Edition, by B.P. Lathi (Oxford University Press, 1998)
Pre-requirement	Trigonometric identities, Integrals, Fourier series, and some othert basic knowledge of mathematics, and LCR circuits.

Course Description	This course must be taken concurrently with the course "Communication Systems Laboratory." First two classes will be review sessions that concentrate efforts on familiarizing students with the basic mathematical knowledge including the subjects listed in the prerequisites. Students who do not have confidence in those items are requested to make extra efforts to catch up with other students during the first two classes. This course together with Communication System Laboratory. discusses in depth how digital and analog communication systems work. The basic tools used here are waveform analyses. Topics covered in this course are, signal analysis, the Fourier spectrum, the autocorrelation function, power spectrum, line coding, intersymbol interference, roll-off filters, the discrete Fourier transform, the Hilbert transform, and various types of modulation. Some experiments in threshold effects in the presence of noise are included. From the first chapter up to chapter 7 of the textbook will be covered during the course hours. The remaining chapters will be covered in the course given in the spring semester.
Lecture Code	2009BTLR08
Lecture Title	Communication Systems Laboratory
Credit	1 ([Contact Hour: 1.5h/w + Exercise Hour: 0.5h/w] x 15 weeks)
Day of Class	Friday #5
Lecturer Name	Prof. Noboru TOYAMA
Extension	5744
E-mail	toyama@fedu.uec.ac.jp
Textbook	Modern Digital and Analog Communication Systems, Third Edition, by B.P.Lathi (Oxford University Press, 1988)
Pre-requirement	Trigonometric identities, Integrals, Fourier series, and some other basic knowledge of mathematics, and LCR circuits.
Course Description	This course is an exercise session for the lecture given in "Communication Systems." Therefore, it must be taken concurrently with the course "Communication Systems." This course concentrates efforts on solving problems directly related to the lecture given in the above course. For detailed explanations see the course description for "Communication Systems." Some experiments related to the lectures will also be given.
Lecture Code	2009BTLB02
Lecture Title	Computer Graphics Software, Hardware and Application
Credit	2 ([Contact Hour: 1.5h/w + Exercise Hour: 0.5h/w] x 15 weeks)
Day of Class	Thursday #4
Lecturer Name	Assoc. Prof. Naoki Hashimoto
Extension	5345
E-mail	international@ims.cs.uec.ac.jp
Textbook	Documents will be opened after each class through the internet.
Pre-requirement	A fundamental knowledge of computer and its programming language C and OpenGL will be required.
Course Description	This class is composed of lecture part and discussion part. In the lecture part, we feature following topics: 1) Computer Graphics History and Techniques 2) Virtual Reality Technology 3) CPU & GPU Technology 4) Human Interface Technology 5) Latest Computer Animation And in the discussion part, all students who take this class make presentation about assigned topics. <score criterion> attendance: 35% presentation: 35% reports: 30% <related website> http://www.ims.cs.uec.ac.jp/~naoki/lecture/international/2009/

Lecture Code	2009BTLZ
Lecture Title	Lifelong Learning in Sports (Escrima)
Credit	1 ([Contact Hour: 1.5h/w + Exercise Hour: 0.5h/w] x 15 weeks)
Day of Class	Thursday #2,#3
Lecturer Name	Prof. Hisashi YANAGISAWA
Extension	5583
E-mail	yanagi@e-one.uec.ac.jp
Textbook	
Pre-requirement	
Course Description	(Objectives) Sport is a vital part of human culture affecting both our physical and mental lives. Participation in sport fulfills a basic need to exercise, provides psychological satisfaction and contributes to overall health and fitness. In addition, as sport is played with common rule around the world, it helps to overcome language barriers, promotes international understanding and increases world friendship and good will as a common global culture. The objectives of the course are to acquire skills and knowledge for enjoying sport throughout lifelong and develop health and fitness. (Outline of class and contents) - Introduction of Lessons - Offensive & Defensive Battle Employing Sword and Knife - Exercise in Battle with Bare Hand - Escrima (employing stick) - Resuscitation Techniques - Creation of New Arts and Practice (The assessment policy) - Attendance of Lessons: 60% - Achievement of Skill: 20% - Reports: 10% - Positive Collaboration Attitude: 10%
Lecture Code	2009BTLZ
Lecture Title	Lifelong Learning in Sports (Tennis)
Credit	1 ([Contact Hour: 1.5h/w + Exercise Hour: 0.5h/w] x 15 weeks)
Day of Class	Thursday #2,#3
Lecturer Name	Yukio KITAGAWA (Part-time Lecturer)
Extension	5589
E-mail	kitagawa@iwcpe.ac.jp
Textbook	
Pre-requirement	
Course Description	(Objectives) Sport is a vital part of human culture affecting both our physical and mental lives. Participation in sport fulfills a basic need to exercise, provides psychological satisfaction and contributes to overall health and fitness. In addition, as sport is played with common rule around the world, it helps to overcome language barriers, promotes international understanding and increases world friendship and good will as a common global culture. The objectives of the course are to acquire skills and knowledge for enjoying sport throughout lifelong and develop health and fitness. (Outline of class and contents) - Introduction of Lessons - Stroke (Forehand and Backhand) - Service & Receive

	Smash & Receive Strategy of Game (Doubles Game and Singles Game) Games (Doubles Game and Singles Game) (The assessment policy): Attendance of Lessons: 60% Achievement of Skill: 20% Reports: 10% Positive Collaboration Attitude: 10%
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