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# NUPACE Academic Policies & Syllabi

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Autumn 2011

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名古屋大学  
短期交換留学プログラム

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# NUPACE Academic Calendar & Policies – Autumn 2011

## 1. Calendar

Oct 3 ~ Jan 27	NUPACE (Japan area studies; majors) & regular university courses
Oct 11 ~ Feb 6	University-wide Japanese Language Programme (UWJLP)
Jan 30 ~ Feb 10	Examination period for regular university courses
Dec 28 ~ Jan 7	Winter vacation for NUPACE & regular university courses
Dec 23 ~ Jan 9	Winter vacation for UWJLP programme

Apr 12 (tentative) Spring 2012 semester commences

**National Holidays** (No classes will be held on the following days)

Oct 10	体育の日	(Health-Sports Day)
Nov 3	文化の日	(Culture Day)
Nov 23	労働感謝の日	(Labour Thanksgiving Day)
Dec 23	天皇誕生日	(Emperor's Birthday)
Jan 9	成人の日	(Coming-of-Age Day)
Feb 11	建国記念日	(National Foundation Day)
Mar 20	春分の日	(Vernal Equinox Day)

## 2. List of Courses Open to NUPACE Students

### Japanese Language Programmes

Standard Course in Japanese (7 Levels: SJ101~SJ301)	pp 7~10 1~5 crdts	p 8
Intensive Course in Japanese (6 Levels: IJ111~IJ212)	2~10crdts	p 9
ビジネス日本語 I, II, III	1 credit	p 10
漢字<Kanji>1000, 2000	1 credit	p 10
オンライン日本語<Online Japanese>(中上級読解・作文)	0 credits	p 10

### 入門講義 <J>\* (ECIS Introductory Courses Taught in Japanese)

国際関係論 I (Global Society I)	2 credits	p 10
日本文化論 I (Introduction to Japanese Society & Culture I)	2 credits	p 11
日本語学・日本語教育学 I (Introduction to Japanese Linguistics I)	2 credits	p 12
言語学入門 I (Introduction to Linguistics I)	2 credits	p 12

\*<J> Courses which require at least level 2/N2 of the Japanese Language Proficiency Test (JLPT), or equivalent.

**Other Foreign Language Courses** (Graduate School of Languages & Cultures) 2 credits p 13

**Courses in the Student's Major** (Provided that they meet the academic requirements specified, NUPACE students may opt to register for any of the courses below, irrespective of their school of affiliation.)

#### Education Center for International Students

Japanese Management and Production System Overseas & Int'l Business Env.	2 credits	p 14
Sociology of Education: Equity, Citizenship, and Inclusion	2 credits	p 15
Teaching Practice in the Japanese Community	2 credits	p 16

#### School of Agricultural Sciences:

Introduction to Bioagricultural Sciences	2 credits	p 16
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#### School of Economics

Income Theory and Applications	2 credits	p 17
Introduction to Financial Reporting	2 credits	p 18
Law and Economics Workshop (1-year course)	2 credits	p 18

#### School of Engineering:

Academic, Scientific, and Technical English	1 credit	p 19
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Advanced Lecture on System Safety of Machinery	2 credits	p 20
Civil Engineering & Policies for Developing Countries II (Graduate)	2 credits	p 20
Introduction to Civil Engineering & Architecture	2 credits	p 20
Motor Control and Information Processing in the Biological System (Graduate)	2 credits	p 21
Overview of Advanced Electrical, Electronic & Information Engineering	2 credits	p 22
Science & Technology in Japan	2 credits	p 22

Graduate School of Environmental Studies

Biological Resource Management Policies	2 credits	p 23
Biological Resource Management Projects	2 credits	p 28
Climate Change Policies	2 credits	p 28
Environmental Industry Systems	2 credits	p 29
Planning and Design Studio for Historical Environment (2 <sup>nd</sup> quarter; Graduate)	2 credits	p 30
Politics and Diplomacy in the International Environment (Graduate)	2 credits	p 30
Practice in Biological Resource Management	1 credit	p 31
Studio Workshop of Architectural Design (1 <sup>st</sup> quarter; Graduate)	2 credits	p 31
Sustainability and Environmental Studies	2 credits	p 31
Water and Waste Engineering	2 credits	p 32

Graduate School of International Development (GSID):

Comparative Asian Legal Systems	2 credits	p 34
Educational Development Planning and Evaluation	2 credits	p 34
Human Security and Law	2 credits	p 35
Japan's Development Experience	2 credits	p 36

Graduate School of Languages & Cultures (GSLC):

A Comparative History of Broadcasting	2 credits	p 36
Introduction to Sociolinguistics b	2 credits	p 37
Introductory Studies in International Culture b: Map Appreciation	2 credits	p 37
Outline of Japanese Culture since the 16th Century	2 credits	p 38

School of Law:

Comparative Studies in Administrative Law: Modern Administrative Law	2 credits	p 39
Comparative Studies in Jurisprudence II: Uses of the Public Sphere – Good Practice vs. Corruption	2 credits	p 39
Comparative Studies in Political Thought: Political Theory in Modern Europe	2 credits	p 40
Comparative Studies in Politics II: Japanese Diplomacy & International Politics	2 credits	p 41
Politics & Law in Japan	2 credits	p 41
Prof. Studies in Int'l Human Rights Law II: Human Rights & Refugee Law	2 credits	p 42
Special Lecture and Seminar: Workshop on International Negotiation	2 credits	p 42
Special Lecture and Seminar: <i>Yomiuri Shimbun</i> Special Lecture – Comparative Asian Corporate Theory	2 credits	p 43
Studies in Jurisprudence: Law as Political Theory II	1 credit	p 45

School of Letters:

Japanese/Asian Cinema History	2 credits	p 46
Japanese Culture: Language and Communication II	2 credits	p 46
日本語文化入門 II (Introduction to Japanese Language & Culture II) <J*>	2 credits	p 47

\*<J> Course which requires at least level 2/N2 of the Japanese Language Proficiency Test (JLPT), or equivalent.

Graduate School of Mathematics:

Perspectives in Mathematical Sciences II (Graduate)/IV (Undergraduate)	2 credits	p 47
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School of Science:

Advanced Quantum Chemistry	2 credits	p 49
Computational Chemistry	2 credits	p 50

### 3. Class Time-table

Unless indicated otherwise, the following courses commence on Monday, October 3, 2011. Students should refer to the course descriptions in this pamphlet for details on course content and eligibility, and the enclosed floor maps for the locations of classrooms.

	Mon	Tue	Wed	Thu	Fri
(I) 08:45- 10:15	Intro to Financial Reporting (Economics, Sem. Rm. 7) Advanced Lecture on System Safety of Machinery (Eng. Bldg. 2, Rm., 221)	Income Theory & Applications (Economics, Sem. Rm. 5)	Special Lect. & Sem: Workshop on International Negotiation (IRB Humanities & Soc. Sc., Rms. 409-410) Biological Resource Management Projects (Env. Studies, Lect. Rm. 3)	Water and Waste Engineering (Env. Studies, Lect. Rm. 1) Studio Workshop of Architectural Design <1 <sup>st</sup> quarter> (ES, 435) Planning & Design Studio for Historical Env. <2 <sup>nd</sup> quarter> (ES, 435) Comparative Asian Legal Systems (GSID, Sem. Rm. 9 (710)) Ed. Devlpt Planning & Evaluation (GSID, Sem. Rm. 8 (512)) Computational Chemistry (Sc., Bldg. A, Rm. 250) <b>From Oct. 20</b>	
	Comp. Studies in Administrative Law: Modern Admin. Law (IRB Humanities & Soc. Sc., Rm. 407)	Introduction to Sociolinguistics b (IRB Humanities & Soc. Sc., Rm. 522)	Advanced Quantum Chemistry (Sc. Bldg. B, Lecture Rm. 3 <B-116>)	Environmental Industry Systems (Env. Studies, Lect. Rm. 1) Studio Workshop of Architectural Design <1 <sup>st</sup> quarter> (ES, 435) Planning & Design Studio for Historical Env. <2 <sup>nd</sup> quarter> (ES, 435)	Sustainability & Environmental Studies (Env. Studies, Lect. Rm. 3) Comp. Studies in Politics II: Japanese Diplomacy & Int'l Politics (Law, Sem. Rm. 905)
(III) 13:00- 14:30	国際関係論Ⅰ<J> (ECIS, Rm. 207E) <b>From Oct. 17</b>	Politics & Law in Japan (IRB Humanities & Soc. Sc., Rms. 409-410)	Japan's Development Experience (GSID, 8F, Auditorium)	Int'l Human Rights Law II: Seminar on Human Rights and Refugee Law (Law, Sem. Rm. 905)	Intro to Civil Eng. & Architecture (Eng. Bldg.8, Rm. 210)
	Climate Change Policies (Env. Studies, Lect. Rm. 1)	Practice in Biological Resource Management (Env. Studies, Sem. Rm. 2)	Science & Technology in Japan (Eng. Bldg. 1, Rm. 131)	Sociology of Education: Equity, Citizenship, & Inclusion (Inter-dept. Ed. Bldg./Info & Sc., Rm. C14)	Comparative Studies in Jurisprudence II: Uses of the Public Sphere – Good Practice vs. Corruption (Law, Sem. Rm. 905)
		Japanese Culture: Lang. & Communication II (IRB Humanities & Soc. Sc., Rm. 307)	Civil Engineering & Policies for Developing Countries II (Eng Bldg. 9, Rm. 911)	Int'l Culture b: Map Appreciation (Inter-dept. Ed. Bldg./Info & Sc., <N>, Rm. 107)	Outline of Japanese Culture since the 16 <sup>th</sup> Century (Inter-dept. Ed. Bldg./Info & Sc. <N>, Rm. 105)
		Perspectives in Mathematical Sc. II/IV (Sc., Bldg. 1 <Maths>, Rm. 109)	Overview of Adv. Electrical, Electronic & Information Eng. (Eng. Bldg. 1, Rm. 132) ビジネス日本語I (ECIS, Rm.207W) <b>From Oct. 11</b>	日本文化論Ⅰ<J> (ECIS, Rm. 207E) <b>From Oct. 13</b>	
		Overview of Adv. Electrical, Electronic & Information Eng. (Eng. Bldg. 1, Rm. 132)		Civil Engineering & Policies for Developing Countries II (Eng Bldg. 9, Rm. 911)	ビジネス日本語III (ECIS, Rm.201) <b>From Oct. 13</b>
Politics and Diplomacy in the Int'l Environment (Grad. School of Info. Sc., 1F, Lect. Rm. 3) Motor Control and Info Processing in the Biological System (ES, 031)	Overview of Adv. Electrical, Electronic & Information Eng. (Eng. Bldg. 1, Rm. 132)	Special Lect. & Sem: Yomiuri Shimbun Special Lect. - Comp. Asian Corporate Theory (Law, Sem. Rm. 905) <b>From Oct. 12</b> 漢字 1000 (ECIS, Rm.201) <b>From Oct. 12</b>		Intro to Civil Eng. & Architecture (Eng. Bldg. 8, Rm. 210) A Comparative History of Broadcasting (Inter-dept. Ed. Bldg./Info & Sc. <N>, Rm. 105)	
日本語学・ 日本語教育学Ⅰ<J> (ECIS, Rm. 207E) <b>From Oct. 17</b>					
(V) 16:30- 18:00	Biological Resource Management Policies (Env. Studies, Lect. Rm. 1)	Human Security and Law (GSID, Sem. Rm. 8)	Special Lect. & Sem: Yomiuri Shimbun Special Lect. - Comp. Asian Corporate Theory (Law, Sem. Rm. 905) <b>From Oct. 12</b>	ビジネス日本語II (ECIS, Rm.207W) <b>From Oct. 13</b>	Japanese Management and Production System Overseas & Int'l Business Environment (ECIS, Rm. 207W)
	Studies in Jurisprudence: Law as Political Theory (IRB Humanities & Soc. Sc., Rm. 411)	Academic, Scientific, & Technical English (IB, Rm. 014)	Japanese/Asian Cinema History (Communal Bldg. for Humanities & Soc. Sc., Rm. 2B)		
		日本語文化入門Ⅱ<J> (Letters, Lect. Rm. 237)	Law and Economics Workshop (Economics, Sem. Rm. 2)	Teaching Practice in the Japanese Community (GIS) (Poppins-After-School)	
		漢字 2000 (ECIS, Rm.201) <b>From Oct. 11</b>	Intro to Bioagricultural Sciences (Agric. Sc., Lect. Rm. 5)		

#### 4. Other Courses/その他の授業

Students participating in NUPACE may be eligible to register for other courses offered to degree-seeking students at Nagoya University. Prior to registration, however, students are requested to consult their academic advisors (pp. 51~52) and confirm with the instructor(s) of the course(s) in question that they meet the academic and language requirements of the class. Where students obtain such approval and decide to register for the course, they should pick up a 'NUPACE Student Course Admission Request Form' at the NUPACE Office, and submit it to the relevant instructor.

##### Pre-requisites and Restrictions Regarding Registration for Other Courses:

1. Unless specified otherwise, students must have obtained level one of the Japanese Language Proficiency Test. (Foreign language courses are exempted from this requirement.)
2. Students may not register for any sport/physical exercise courses.
3. Students may not take more than one foreign language course per semester. (Japanese is not included in this requirement.)

##### **Guided Independent Study**

In their second semester of study at Nagoya University, NUPACE students can opt to take advantage of our 'Guided Independent Study (GIS)' system. After consulting and obtaining permission from their academic advisors, students may, with the co-operation of an academic supervisor, pursue independent research in their major field of study. This research work will be evaluated and credits awarded accordingly. The maximum number of credits awarded for GIS is set at eight, and a rough guide to the expected length of GIS reports and corresponding credits is as follows:

10 pages → 2 credits    30 pages → 6 credits  
20 pages → 4 credits    40 pages → 8 credits

When discussing GIS with your academic advisor, please ask him/her to refer to pp. 17~18 of the following manual for more details: 『指導教員・留学生担当者のための短期留学生受入れマニュアル』.

NUPACE に参加する学生は、名古屋大学の正規学生を対象に開講されている授業を履修することができます。しかし事前に指導教員(51-52 ページ)と相談し、同意を得る必要があります。また、その授業に必要な言語やバックグラウンド等の条件を満たしているかについて、その授業の担当教員に判断してもらい、受講の許可を得る必要があります。許可を得たうえで履修することを決定した場合、「履修登録・成績評価に関するお願い」を NUPACE オフィスで受け取り、授業担当教員へ提出してください。

NUPACE で提供される授業以外のコースを登録するための条件と制限

1. 特に明記されていない限り、日本語能力検定試験の1級に合格していなければいけません。(外国語の授業については、この条件は免除されます。)
2. スポーツあるいは運動の授業を履修することはできません。
3. 日本語の授業を除き、一学期に履修できる外国語の授業は一つまでです。

##### **GIS(個人勉学指導)**

名古屋大学での勉学が二学期目に入ると、GIS(個人勉学指導)制度を活用することができます。指導教員に相談し許可を得た場合には、自らの専門領域に関する調査研究を指導教官の協力を得て実施することができます。研究成果は指導教員によって評価され、その評価に従って単位が与えられます。GISでは最大8単位まで取得することが認められています。GISの単位数は成果報告のおおよその分量によって、下記のように規定されています。

(日本語の場合)

6 ページ→2 単位    18 ページ→6 単位  
12 ページ→4 単位    24 ページ→8 単位

指導教員とGISについて相談をする際には、『指導教員・留学生担当者のための短期留学生受入れマニュアル』の17-18ページを参照するようお願いをしてください。

## 5. Grading System

### **Credit-seeking Students:**

With the exception of ‘Special Research Students’, NUPACE students are required to register for a minimum of 15 credit hours per semester, or a total of 30 credit hours per academic year. Those students who fail to obtain the required number of credits shall not be presented with a ‘Certificate of Completion’ once they have concluded their term of exchange.

All NUPACE students will receive two academic transcripts, one of which will be sent directly to their home institutions. The transcript will contain the names of courses studied, class contact hours, number of credits awarded, letter grades and scores out of one hundred. Grades for achievement will be given using a modified form of the UCTS (UMAP Credit Transfer Scheme). Hereby, NUPACE students will earn two sets of grades in courses taken for credit: Grades based on Nagoya University’s system, and their equivalent on the UCTS scale.

NUPACE Grading System		ECTS/UCTS Equivalent Scale
A* (Excellent)	90~100	A (Excellent)
A (Very Good)	80~89	B (Very Good)
B (Good)	70~79	C (Good)
C (Satisfactory)	60~69	D (Satisfactory)
F (Fail)	0~59	F (Fail)
Au (Audit)	N/A	N/A

Students who take subjects for credit are required to have a course attendance rate of 80% or higher. In the absence of extenuating circumstances, students failing to meet this attendance requirement will earn a ‘fail’.

Students, who during the semester find that they wish to ‘drop’ a class, should notify the NUPACE Office by **Monday, 31 October 2011**. Requests for amendments to course registration details after this date will not be accepted.

### **Students engaging in Research or Guided Independent Study:**

‘Special Research Students’ and students who engage in ‘Guided Independent Study (GIS)’ are required to provide the NUPACE Office with the results of their research work at the end of each semester. Research work presented to the NUPACE Office must have the stamp of the student’s academic advisor on the title page.

### **単位取得希望学生:**

「特別研究学生」を除いて、すべての NUPACE 生は一学期に最低 15 単位以上、あるいは二学期間(1 年間)で 30 単位以上を取得しなければいけません。この履修単位の条件を満たせなかった場合、交換留学期間の終了時に「修了証 (Certificate of Completion)」が授与されません。

すべての NUPACE 生には成績証明書が二通発行され、そのうち一通は所属大学へ直接郵送されます。成績証明書には履修した授業の科目名、履修時間数、単位数、成績(ABC)、スコア(%)が表示されます。達成度を示す成績は UCTS(アジア太平洋大学交流機構単位評価方式)を適用したものを使用しています。したがって NUPACE 生は名古屋大学の評価方式によるものと、それを UCTS の尺度に合わせた評価の二種類の表記で成績を得ることになります。

授業科目を履修登録した場合は、80%以上の出席率が求められます。欠席理由に情状酌量の余地がないケースは、出席率の条件を満たさなかったとみなされ、その授業の成績は「F」となります。

授業の履修を止める際には、**2011年 10 月 31 日(月)**までに必ず NUPACE オフィスに報告しなければいけません。

### **研究あるいは GIS(個人勉学指導)を行う学生:**

「特別研究学生」と GIS(個人勉学指導)を行う学生は、各学期末に研究成果の報告書を NUPACE オフィスへ提出しなければいけません。また報告書の表紙には指導教員の印が捺印されていなければなりません。

**Report submission deadline for autumn 2011 semester: Friday, February 10, 2012.**

When discussing research or GIS with your academic advisor, please ask him/her to refer to p. 19 (research) or pp. 17~18 (GIS) of the following manual for more details: 『指導教員・しどうきょういん留学生担当者りゅうがくせい たんとうしやのための短期留学生受入れたんき りゅうがくせい うけいれマニュアル』。

**報告書の提出締切り(2010年度後期):2012年2月10日(金)**

調査研究や GIS に関して指導教員と相談する際は、『指導教員・留学生担当者のための短期留学生受入れマニュアル』の 19 ページ(調査研究)あるいは 17-18 ページ(GIS)を参照するようにお願いをしてください。



## Courses in Japanese & Other Languages

### University-wide Japanese Language Programme

Co-ordinator: KINUGAWA Takao

Place: Education Centre for International Students. (Refer to class schedule for rooms.)

Nagoya University offers two comprehensive Japanese language programmes to all international students, researchers and faculty members affiliated to this University: 1) *Standard Course in Japanese* and, 2) *Intensive Course in Japanese*. In the *Standard Course*, classes are divided into seven levels ranging from Elementary Japanese I to Advanced Japanese, and students attend one class a day for up to five days a week. The *Intensive Course* has six levels from Elementary Japanese I to Intermediate Japanese II with students attending two classes a day for up to five days a week. The programme offers flexibility and choice, and places priority on meeting the various academic needs of students. Please note that students with previous Japanese language experience will be required to sit a placement test and undergo an interview to determine their Japanese language level.

In addition to the above, NUPACE students are also welcome to participate in Nagoya University's *Kanji*, Business Japanese, and Online Japanese classes to further hone their Japanese language skills

#### 1. Description of Levels

##### 1. Elementary Japanese I

This course is designed for students who have little or no knowledge of Japanese. It aims to develop the students' working knowledge of Japanese to the level where they can function effectively in everyday life. Emphasis is placed on improving oral skills, although students will also be required to master the fundamentals of elementary grammar and a limited number of *kanji* (Chinese characters). The written content of the course (150 *kanji*, vocabulary of 800 words) is approximately equivalent to level four of the Japanese Language Proficiency Test.

**Textbook:**

*A Course in Modern Japanese (Revised Edition) Vol. 1*, compiled and edited by the Japanese Language Education Research Group, Nagoya University (2002)

##### 2. Elementary Japanese II

This course is designed for those students who have had approximately 150 hours of Japanese instruction at university level or who have completed *Elementary Japanese I* at Nagoya University. The main objective is to enable students to master the fundamentals of pre-intermediate grammar patterns and to acquire a working knowledge of Japanese to help them function smoothly in Japanese society. Upon completion of the course students should have mastered a total of 300 *kanji* and possess a vocabulary of 1,800 words (approximately equivalent to level three of the Japanese Language Proficiency Test).

**Textbook:**

*A Course in Modern Japanese (Revised Edition) Vol. 2*, compiled and edited by the Japanese Language Education Research Group, Nagoya University (2002)

##### 3. Pre-intermediate Japanese

This course is designed for those students who have had approximately 300 hours of Japanese instruction at university level or who have completed *Elementary Japanese II* at Nagoya University. The main objective is to enable students to consolidate their knowledge of basic Japanese grammar, vocabulary and *kanji*, so that they are better prepared to proceed to intermediate Japanese. Emphasis is placed on applying knowledge of Japanese in the four skill areas. Students should have mastered a total of 400 *kanji* and 2,600 words by the end of the course.

**Textbook:**

Materials compiled and edited by ECIS, Nagoya University

## Courses in Japanese & Other Languages

### 4. Intermediate Japanese I

This course is designed for those students who have had approximately 400 hours of Japanese instruction at university level or who have completed *Pre-intermediate Japanese* at Nagoya University. The course aims to enable students to master grammatical patterns and expressions found at the beginning to mid-intermediate level and to develop proficiency in the four skill areas. Upon completion of the course, students should have mastered a total of 550 *kanji* and possess a vocabulary of 3,800 words.

#### Textbooks:

*A Course in Modern Japanese Vol. 3*「現代日本語コース中級I」compiled and edited by the Japanese Language Education Research Group, Nagoya University (1993)

「現代日本語コース中級I 聴解ワークシート 予習・授業シート」compiled and edited by the Japanese Language Education Research Group, Nagoya University (1993)

### 5. Intermediate Japanese II

Designed for students who have received approximately 500 hours of Japanese instruction at university level, or who have completed *Intermediate Japanese I* at Nagoya University. Although emphasis is placed on developing a high command of oral skills for the purpose of communication in academic and non-academic situations in Japan, students are also required to improve their competency in listening, reading and writing. Upon completion of the course, students should have mastered a total of 700 *kanji* and have acquired a vocabulary of approximately 5,000 words.

#### Textbooks:

*A Course in Modern Japanese Vol. 4*「現代日本語コース中級 II」compiled and edited by the Japanese Language Education Research Group, Nagoya University (1993)

「現代日本語コース中級 II 聴解ワークシート 予習・授業シート」compiled and edited by the Japanese Language Education Research Group, Nagoya University (1993)

### 6. Pre-advanced Japanese

This course is designed for those students who have had approximately 600 hours of Japanese instruction at university level or who have completed *Intermediate Japanese II* at Nagoya University. The course aims to enable students to increase their vocabulary to approximately 6,000 words and 900 *kanji*, and to improve the four language skills to the equivalent of level two of the Japanese Language Proficiency Test.

#### Textbook:

Materials compiled and edited by ECIS, Nagoya University.

### 7. Advanced Japanese

Designed for students who have received approximately 750 hours of Japanese instruction at university level or who have completed *Pre-advanced Japanese* at Nagoya University. Students are required to increase their vocabulary to 7,500 words and 1,100 *kanji*. Upon completion of the course, students should be able to join general education classes for Japanese students with minimum assistance from a Japanese tutor.

#### Textbook:

Materials compiled and edited by ECIS, Nagoya University.

## 2. Course Structure

### I. Standard Course in Japanese

#### 1. Elementary Japanese (5 credits; 10 hours per week x 14 weeks)

Two comprehensive classes, Elementary Japanese I and Elementary Japanese II, encompassing all four skill areas, are offered at this level.

## Courses in Japanese & Other Languages

### 2. Pre-intermediate to Advanced Japanese (1 credit per class <2 hours>, maximum five classes <10 hours> per week x 14 weeks)

At these higher levels, students are encouraged to devise their own Japanese language curriculum according to individual needs. Twenty-five classes covering five levels are offered, which are divided amongst the skill areas of conversation (C), reading (R), listening (L), grammar and discourse (G), and writing (W). Students may opt to take between one and five of these classes at a level determined by the result of their placement test.

#### Standard Japanese Course Structure

Japanese Level	Class Name					Textbook
Elementary I	SJ101					<i>A Course in Modern Japanese Vol. 1</i>
Elementary II	SJ102					<i>A Course in Modern Japanese Vol. 2</i>
Pre-intermediate	SJ200 (C1 & C2)	SJ200(R)	SJ200(L)	SJ200(G)	To Be Announced	
Intermediate I	SJ201 (C1 & C2)	SJ201(R)	SJ201(L)	SJ201(G)	『現代日本語コース中級I』	
Intermediate II	SJ202 (C1 & C2)	SJ202(R)	SJ202(L)	SJ202(G)	『現代日本語コース中級II』	
Pre-Advanced	SJ300(C1 )	SJ300(C2)	SJ300(R)	SJ300(L)	SJ300(G)	To Be Announced
Advanced	SJ301(C)	SJ301(W1)	SJ301(W2)	SJ301(R)	SJ301(L)	To Be Announced

- NB.** 1. Students wishing to attend conversation classes at the pre-intermediate or intermediate levels (SJ200/SJ201/SJ202) must register for both C1 & C2  
2. Students may not take the same skill class at two different levels.

## II. Intensive Course in Japanese

### 1. Elementary to Pre-intermediate Japanese (10 credits; 20 hours per week x 14 weeks)

Two comprehensive classes, Elementary Japanese I (covering elementary levels I and II) and Elementary Japanese II (covering the elementary II and pre-intermediate levels), are offered. They encompass all four skill areas.

### 2. Pre-intermediate to Intermediate Japanese II (2 credits per class <4 hours>, maximum five classes <20 hours> per week x 14 weeks)

At these higher levels, students are encouraged to devise their own Japanese language curriculum according to individual needs. Ten classes covering three levels are offered, which are divided amongst the skill areas of conversation (C), reading (R), listening (L), and grammar and discourse (G). Students may opt to take between one and five of these classes at a level determined by the result of their placement test.

#### Intensive Japanese Course Structure (Elementary I to Pre-intermediate)

Japanese Level	Class Name		Textbook
Elementary I	IJ111		<i>A Course in Modern Japanese Vol. 1</i>
Elementary II		IJ112	<i>A Course in Modern Japanese Vol. 2</i>
Pre-intermediate			To Be Announced

#### Intensive Japanese Course Structure (Pre-intermediate to Intermediate II)

Japanese Level	Class Name/Skill								Textbook
	Conversation 1	Conversation 2	Reading		Listening		Grammar/Discourse		
Pre-intermediate		IJ211 (C1 & C2)	IJ211 (R)		IJ211 (L)		IJ211 (G)		To Be Announced
Intermediate I	IJ212 (C1)		IJ212 (R)		IJ212 (L)		IJ212 (G)		『現代日本語コース中級I』
Intermediate II									『現代日本語コース中級II』

- NB.** Students wishing to attend conversation classes at the pre-intermediate~intermediate I level (IJ211) must register for both C1 and C2.

## Courses in Japanese & Other Languages

### 3. ビジネス日本語 I, II, III

These courses are aimed at students seeking employment at Japanese companies. They also cater to students who want to deepen their understanding of Japanese business communication. Participants will acquaint themselves with Japanese business manners and learn expressions used in the Japanese business world.

将来、日本の企業に就職を希望する人はもちろん、日本人のビジネスコミュニケーションに対する理解を深めたい留学生を対象とし、日本のビジネス・マナー及びビジネスで用いられる日本語表現を身につける。

**Textbook:**

『ビジネスのための日本語・初中級』スリーエーネットワーク

### 4. 漢字< Kanji > 1000

This class is aimed at students who have mastered approximately 300 *kanji*, and concentrates on the 1000 *kanji* covered at levels N3~N2 of the Japanese Language Proficiency Test.

漢字300字程度を学習した学生を対象に、日本語能力試験N3-N2程度の漢字1000字を目標に学習する。

**Textbook:**

『漢字マスター Vol. 3 2 級漢字 1000』

### 5. 漢字< Kanji > 2000

漢字1000字程度を学習した学生を対象に、日本語能力試験N2の上からN1程度の漢字約2000字およびその語彙を学習する。

**Textbook:**

『日本語学習のための よく使う順 漢字2100』

### 6. オンライン日本語< Online Japanese >(中上級読解・作文)

日本語の授業に出席することが時間の関係などで難しい留学生のために、Web上で教材を配布し、学習者からの解答に対しフィードバックを返すというものです。受講者は学内 LAN で、日本語入力可能なものに限り、登録者にはパスワードを発行するので、詳しくは留学生センターホームページをご参照ください。プレースメントテストは不要です。

登録する人は g44420a@cc.nagoya-u.ac.jp にメールしてください。パスワードを発行します。

## 入門講義 <J> (Introductory Courses taught in Japanese)

**NB.** The following courses are taught in Japanese and require at least level 2 of the Japanese Language Proficiency Test (JLPT) or equivalent.

### 1. 国際関係論 I (Global Society I)

Co-ordinator: AKIYAMA Yutaka

Class: Mondays, 13:00~14:30

Place: Education Centre for International Students (ECIS), Rm. 207E

遠く離れた場所で起きたできごとや自分がまったく知らないできごとが距離・時間の隔たりなく人々の生活、健康などに影響をあたえるようになった。さらに貿易、資本、情報の流れにおける国境だけでなく、考え方や規範、価値観

## Courses in Japanese & Other Languages

といった面でも国境の存在が薄らいできた。このような空間の縮小、時間の短縮、国境の消滅ははたして一つの地球村の形成につながるものであろうか。その可能性はあなたが何者であるかによるのかもしれない。国家、経済、人々が盛んに行き交う時代、いわゆるグローバルゼーションは世界を一つにするのか、あるいはバラバラにしてしまうのか。グローバルゼーションがもたらす正負の側面を概観する。

### Topics to be covered (tentative):

- 1 世界の統合
  - 1-1 グローバル・キャピタル
  - 1-2 グローバル文化
- 2 世界の分断
  - 2-1 拡大する不平等
  - 2-2 雇用と収入の不安
- 3 不安定な世界
  - 3-1 金融市場
  - 3-2 グローバル犯罪
  - 3-3 沈黙の緊急課題:環境悪化
- 4 地球社会?
  - 4-1 グローバル・ガバナンス
  - 4-2 グローバルNGOネットワーク

### Reference Materials:

資料配布

### Evaluation:

出席率・積極性・レポート

## 2. 日本文化論 I (Introduction to Japanese Society & Culture I)

Co-ordinator: UKIBA Masachika  
Class: Thursdays, 13:00~14:30  
Place: Education Centre for International Students (ECIS), Rm. 207E

まず、はっきり言いますが、茶道、歌舞伎、武士道などいわゆる「日本文化」(つまり、日本にしか無いもの)はやりません。「日本文化」という言葉は「日本人の生活様式」という広い意味でとらえてください。「文化」という言葉を私はある集団が世代を越えて伝えていく<癖(くせ)>のようなものだと考えています。

この講義では、家族、学校という現代の日本社会を理解するうえで重要な二つのトピックを取り上げ、そこに見られる日本人の<癖(くせ)>を考えていきます。また、時間に余裕があれば、皆さんがあまり目にすることが出来ない田舎の生活についても、紹介していきたいと思います。

この講義を通して、皆さんが日本や日本人に対するイメージを少しでも広げることが出来ればと考えています。

### Topics to be covered:

1. オリエンテーション:「文化」という言葉をめぐって
2. 家族は会社、学校を両立するのか:映画『毎日の夏休み』に見る新しい家族像
3. 結婚しても入籍できない!?:夫婦別姓と国際結婚(戸籍制度と日本社会)
4. 学校に行かない子どもたち:いじめ、不登校、フリースクールなど
5. 働かなくちゃだめですか:フリーター、パラサイト・シングルなど
6. 田舎に行ってみよう:貴方の知らない日本の素顔

### Reference Materials:

ハンドアウト随時配布

### Evaluation:

出席と授業態度 40%  
レポート 60%

### 3. 日本語学・日本語教育学 I (Introduction to Japanese Linguistics I)

Co-ordinator: LEE Tack Ung  
Class: Mondays, 14:45~16:15  
Place: Education Centre for International Students (ECIS), Rm. 207E

前半の講義では、日本教育で主に問題となる文法項目を取り上げ、整理・検討することによって、基礎的な文法知識を身につけることを目指す。毎回、簡単な課題を取り上げ、みんなで考える時間を設ける。そのため、受講者の積極的な参加が要求される。

後半の講義では、日本語教育の基礎知識を身につけることを目標とする。日本語教育の現状を概観し、コース・デザイン、教材、誤用分析などを紹介する予定である。

この講義で学んだことがこれから日本語教育者(あるいは言語学者)を目指す人に少しでも役に立てることを願っている。

#### Topics to be covered:

1. 日本語学(前半)
  - (1) 品詞
  - (2) 活用
  - (3) 格助詞
  - (4) ヴォイス
  - (5) 人称
2. 日本語教育学(後半)
  - (1) コース・デザインと教材の紹介
  - (2) 誤用分析

#### Reference Materials:

ハンドアウト配布

#### Evaluation:

1. 出席・授業態度 40%
2. テスト 60%

### 4. 言語学入門 I (Introduction to Linguistics I)

Co-ordinator: MOMIYAMA Yosuke  
Class: Fridays, 13:00~14:30  
Place: Education Centre for International Students (ECIS), Rm. 207E

Focusing on Japanese, this lecture attempts to provide a basic knowledge of linguistics, including methodology. It focuses on selected fundamental characteristics of human language, semantics (linguistic meaning), sociolinguistics, and linguistic typology.

#### Topics to be covered:

1. 言語学の基本的な考え方: 日常見られる言葉に対する見方との違い
2. 人間の言葉の一般的特徴: 他の動物のコミュニケーションの手段と比較して
3. 言葉の意味: 認知意味論(cognitive linguistics)を中心に
4. 言葉と社会: 社会方言(social dialects)の諸相
5. 世界の言語と日本語: 言語類型論(linguistic typology)における日本語の位置づけ

#### Textbook:

ハンドアウトを配布する

#### Reference Materials:

町田健・靱山洋介『よくわかる言語学入門』バベル・プレス  
町田健・靱山洋介他『言語学大問題集 163』大修館書店  
靱山洋介『認知意味論のしくみ』研究社

## Courses in Japanese & Other Languages

(授業の際に、より詳しい参考文献を紹介する)

### **Evaluation:**

1. 出席
2. 授業への貢献度・積極性
3. レポートまたはテスト

## Graduate School of Languages & Cultures (GSLC)

The Graduate School of Languages and Cultures offers a variety of language courses (Ainu, Chinese, Dutch, English, French, German, Classical Greek, Italian, Korean, Latin, Russian, Spanish, Vietnamese), which are, for the most part, open to NUPACE students. Students who are interested in taking any of these courses can enquire about the class content and time-table at the Office of the Graduate School of Languages and Cultures, NUPACE Student Helpdesk (ECIS Lobby), or NUPACE Office.

### **Course Registration – English**

#### **1. Continuing Students**

**Registration Period:** Wed, Sep 21, Thu, Sep 22 at 09:00~17:00

**Class Placement:** Notice-board <university-wide courses>, 1F, Inter-departmental Education Bldg (School of Informatics & Sciences), 9:00 on Thu, Sep 29.

#### **2. Newly-Arrived Students Only**

- 1) On **Mon, Oct 3**, check the relevant announcement 「とくべつえいごせみなーあきくらすいちらん特別英語セミナー空きクラス一覽」 on the “university-wide courses” (ぜんがくむけじゆぎょう全学向け授業) notice-board of the Inter-departmental Education Bldg. (School of Informatics & Sciences) (1F) for any English course vacancies. Please note that a class of 20 students is considered full, and that you cannot apply for it.
- 2) Students interested in taking a course, should obtain a yellow course registration form at the Graduate School of Languages & Cultures (GSLC) counter (Office, 1F, IRB Humanities & Social Sciences).
- 3) After filling out the form, submit it to the same counter during the following period: Mon, Oct 3 ~ Thu, Oct 6 (09:00~12:00; 13:00~17:00), making sure also to take along your original TOEFL/TOEIC score-sheet. The minimum requirement: is TOEFL 527 (iBT 71)/TOEIC 663).
- 4) Class allocation is based upon the course registration form data submitted by students. Due to oversubscription of certain classes, not all students can be guaranteed a place.
- 5) Class placement announcement: Tue, Oct 11 at 09:00 on the “university-wide courses” notice-board, 1F, Inter-departmental Education Bldg (School of Informatics & Sciences).

### **Course Registration – Other Languages**

Pick up a blue course registration card at the Graduate School of Languages & Cultures (GSLC) counter (Office, 1F, IRB Humanities & Social Sciences). After filling the form in, and writing NUPACE in capital letters on it, submit one part of the divisible form to the relevant course instructor on the first day of class. If you are deemed eligible to participate in the course, insert another section of the registration form, labelled ‘For Office Use’, into the “course application box” at the GSLC counter between Tue, Oct 11 ~ Tue, Oct 18 (9:00~17:00).

**NB.** English language classes commence on Mon, Oct 3, 2011 (Tue, October 11 for newly-arrived students). Classes in languages other than English commence in the second week of the semester (i.e., in the week starting on Tue, Oct 11 <Oct 10 is a national holiday>).

Education Center for International Students

**1. Japanese Management and Production System Overseas & the International Business Environment**

Co-ordinator: Celal BAYARI  
 Class: Fridays, 16:30~18:00  
 Place: Education Center for International Students, Room 207W  
 Capacity: 25 Students

This course is for undergraduate and postgraduate students of NUPACE and Nagoya University, who are in a broad range of disciplines that include, but are not limited to, the arts, humanities, social sciences, management, economics, law and engineering. Those who are interested in this course should have some prior knowledge of and/or personal interest in topics such as foreign direct investment, management and production systems, the Anglo-Saxon economic model, Japanese production model, and Japanese manufacturing facilities outside Japan. In each class one student (or a group) will introduce the reading material for that week. Students who undertake this course are expected to read the material ahead of the class time, and participate in the discussion and offer their perspectives, thus helping each other to work out the issues involved. Articles have been chosen to give students perspectives on specific topics that are related to each other within the framework of international business environment of the Japanese system.

**Topics to be covered:**

- Oct 7 Meeting and briefing, task allocation, reading list discussion, and workload decision making
- Oct 21 Japanese Business in Australia: A management survey of industry interaction with locational factors  
 Bayari, C. (2004). *The Otemon Journal of Australian Studies*. 30: 119-149.  
 Japanese auto manufacturers in the Australian market and the government industry assistance spending.  
 Bayari, C. (2008). *The Otemon Journal of Australian Studies*. 34: 87-107.
- Oct 28 Application and Adaptation of the Japanese Production System in Europe  
 Abo, T. (2004). *The Hybrid Factory in Europe: The Japanese Management and Production System Transferred*. Kumon, H. and Abo, T. (eds). Houndmills, Basingstoke: Palgrave. Pp: 52-74.
- Nov 4 The Japanese Management System and the Corporate Strategies of Japanese Companies  
 Itagaki, H. (2011). *Hybrid Factories in the United States*. Kawamura, T (ed). New York: Oxford University Press. Pp. 53-74.
- Nov 11 Comparison of Japanese Hybrid Factories in the World  
 Abo, T. (2007). *Japanese Hybrid Factories: A Comparison of Global Production Strategies*. Abo, T. (ed). Houndmills, Basingstoke: Palgrave. Pp. 1-35.
- Nov 18 Towards a New Paradigm of Development: Implications for the determinants of international business.  
 Dunning, J. H. (2006). *Transnational Corporations*. 15(1): 174-227.
- Nov 25 Foreign Direct Investment and the Locational Competitiveness of Countries  
 Dunning, J. H. and F. Zhang (2008). *Transnational Corporations*. 17(3): 1-31.
- Dec 2 Restructuring the Regional Distribution of FDI: The case of Japanese and US FDI  
 Dunning, J. H., Z. K. Kim, and C. I. Lee (2007). *Japan and the World Economy*. 19: 26-47.
- Dec 9 The Impact of National Culture and Economic Ideology on Managerial Work Values  
 Ralston, D., D. Holt, R. Terpstra and Y. Kai-Cheng (2008). *Journal of International Business Studies*. 39: 8-26.
- Dec 16 Labour Situation in Japan and Analysis: Detailed exposition 2011/2012  
 The Japan Institute for Labour Policy and Training (2012). *The Present Situation of Corporate-Management Relations and the Performance-Based Wage Systems*. Pp. 60-74.  
 Japanese Women in Management: Getting closer to 'realities' in Japan  
 Yuasa, M. *Asia Pacific Business Review*. 11(2): 195-211.
- Jan 13 Spatial Determinants of Japanese Manufacturing Firms in the Czech Republic



## Courses in the Student's Major

- Jan 20 Norifumi Kawai (2006). *Working Papers on East Asian Studies*. 71.  
Bayari, C. (2010). Japanese Hybrid Factories in Australia: Analyzing labor relations and reflecting on the work of Tetsuo Abo. *Euro Asia Journal of Management*. 20(2): 111-134.
- Jan 27 Lansbury, R. D., W. Purcell, C. S. Suh, and S. H. Kwon (2003). The Global Strategies and Employment Relations Practices of the Hyundai Motor Company in Korea and India. Mimeo. *Labour Relations Review*, Vol. 14, No. 1. Pp 8-20.

### **Textbooks/Reference Materials:**

- Abo, T. (ed.) (2007). *Japanese Hybrid Factories: A comparison of global production strategies*. Houndmills, Basingstoke: Palgrave Macmillan.
- Kumon H. and T. Abo (eds.) (2004). *The Hybrid Factory in Europe: The Japanese management and production system transferred*. Houndmills, Basingstoke: Palgrave Macmillan.
- Kawamura T. (ed.) (2011). *Hybrid Factories in the United States: The Japanese-style management and production system under the global economy*. New York: Oxford University Press.
- Bayari C. (2011). *Japanese Hybrid Factories in Australia: The Japanese system transferred*. Berlin: LIT Verlag.

### **Evaluation:**

- Attendance and participation: 20%
- Presentation (group or individual): 20%
- Two Short Examinations (short answer questions) based on your readings: 30% (15% per exam)
- To be held on December 16 (readings up to December 9) and January 27 (readings from December 16 to January 20).
- Essay: 30%
- Due November 25; you should refer to readings up until November 18. Minimum 1800 words (excluding references). Use 11 point Century font. No footnotes; use in-sentence referencing only. Provide a full reference list at the end. This essay should be an expression of your critical opinion of the course readings. You can use any citation style, so long as you are consistent.

Statistics: Statistical data comprehension is undeniably important. However, while the articles and the books that are used in the course offer statistical sets and tests of reliability, it is not necessary for students to reproduce them in their essays and presentations. While it is undeniably useful for students to familiarise themselves with descriptive statistics, the use and comparison of statistics in student essays and presentations are not the conditions of participation in this course.

## **2. Sociology of Education: Equity, Citizenship, and Inclusion**

- Co-ordinator: KITAYAMA Yuka  
Class: Thursdays, 13:00~14:30  
Place: Inter-departmental Education Bldg. (School of Informatics & Sciences), Rm. C14

This course aims to introduce sociological approaches to issues in education, especially those related to equity, citizenship, and nationality. The course pays particular attention to different backgrounds of social inclusion and exclusion in the context of education. Also, focusing on equity in education, students are expected to examine these issues by analysing qualitative and quantitative data. Assigned reading materials relating to topics are to be read prior to class.

### **Topics to be covered:**

1. Ideology and Education in Pre-War/Post-War Japan
2. Education and Power
3. Liberal nationalism and Cosmopolitan Citizenship
4. Citizenship and Identity in Japanese Education.
5. Equity in School: Class, ethnicity, gender
6. Academic Achievement and Cultural Capital
7. Data Analysis: PISA test (Programme for International Student Assessment)

## Courses in the Student's Major

### **Reference Materials:**

To be distributed in class.

### **Evaluation**

Participation and attendance: 30%  
Presentation: 30%  
Report: 40%

### **3. Teaching Practice in the Japanese Community**

Co-ordinator: Claudia ISHIKAWA (k46189a@cc.nagoya-u.ac.jp)  
Class: Teaching Practice Sessions: 16:30~18:00 once per week (Wednesdays) from November 9, 2011 to January 18, 2012 (8 times). Each class will consist of 60 minutes of teaching time, and 30 minutes of interaction with the children.  
Place: Teaching Practice Sessions: Nagoya University Poppins After-School  
Maximum Capacity 4 Students

**Prerequisites:** Native English-speaker or TOEFL score of 600 PBT/100 iBT, or equivalent.

**Students interested in registering for this programme should contact Claudia Ishikawa at k46189a@cc.nagoya-u.ac.jp or in ECIS Rm. 205 by Wednesday, October 5, 2011.**

This guided independent study is open both to continuing and newcomer students. It involves teaching English to, and developing a rapport/playing with approximately ten elementary school-aged children (ages six to twelve) at Nagoya University's childcare centre, "Poppins-After-School". Students will be required to devise an English-language curriculum (which may include the teaching of basic theme-oriented vocabulary using visual aids; playing educational games and simple sports, etc.), and then, in accordance with the curriculum, teach the pupils rudimentary-level English. Those students, who at the end of the semester submit a report describing their teaching practice experience, will receive 2 credits.

### **Evaluation:**

1. English-Language Lesson Plan: 20% (2 sides A4-sized paper + Poppins prescribed lesson plan form; submission deadline: Wednesday, Wednesday October 26, 2011.)
2. Final Report: 80% (4~6 sides of A4-sized paper; submission deadline: Wednesday, January 25, 2012.)

## School of Agricultural Sciences

### **Introduction to Bioagricultural Sciences**

Co-ordinator: MURASE Jun  
Class: Wednesdays, 16:30~18:00  
Place: School of Agricultural Sciences, Lecture Room 5

We are beset by an array of global concerns such as the depletion of food and energy resources, poverty and health problems, and the destruction of the natural- and living environment. This course, by taking as its base recent developments in the field of life sciences, aims to propose possible solutions to the above, through the analysis of biological production, symbiosis, and frontier technology in the field of bioscience. All lectures are given in English.

### **Topics to be covered:**

1. Introduction (MURASE Jun)
2. Ecology of Irrigated Rice Fields I (MURASE Jun)

## Courses in the Student's Major

3. Ecology of Irrigated Rice Fields II	(MURASE Jun)
4. International Co-operation for Agricultural Development	(ITO Kasumi)
5. Basic Reproductive Endocrinology I	(MAEDA Kei-ichiro)
6. Basic Reproductive Endocrinology II	(MAEDA Kei-ichiro)
7. Molecular Insect Sciences	(NIIMI Teruyuki)
8. Genetically Modified Crops I	(TANIGUCHI Mitsutaka)
9. Genetically Modified Crops II	(TANIGUCHI Mitsutaka)
10. Enzyme Engineering I	(IWASAKI Yugo)
11. Enzyme Engineering II	(IWASAKI Yugo)
12. Current Trends in Crop Production in Japan	(YAMAUCHI Akira)
13. Remarks	(MURASE Jun)

### **Evaluation:**

Evaluation is based on attendance and written reports.

## School of Economics

### **1. Income Theory and Applications**

Co-ordinator: ARAYAMA Yuko (Office Hours: Tue, Fri, 8:30~9:00)  
Class: Tuesdays, 8:45~10:15  
Place: School of Economics, Seminar Room 5

A simple economy consists of households, firms and government. Market is manmade device to connect them each other. Income theory has been serving as a tool to analyze the determination of national income and the reasons for its fluctuation. This course is intending not only to promote understanding core of income theory but to enhance a sense of practical applications of income theory toward the real world.

### **Topics to be covered:**

1. Introduction (1): Microeconomic Foundations of Macroeconomics
2. Introduction (2): Major Economic Indicators and National-Income Accounting
3. Economic Growth (1): Barro's Interpretation of the Solow Model
4. Economic Growth (2): Long-Run Economic Growth
5. Markets in Macroeconomics (1): Household Budget Constraints
6. Markets in Macroeconomics (2): Consumption, Saving and Investment
7. Economic Fluctuations: Business Cycle Model
8. Money and Prices (1): The Demand for Money
9. Money and Prices (2): Inflation, Money Growth and Interest Rates
10. The Government Sector (1): Government Budget Constraint and Expenditure
11. The Government Sector (2): Tax and Public Debt
12. Money and Business Cycles (1): The Price-Misperception Model
13. Money and Business Cycles (2): Sticky Prices and Nominal Wage Rates
14. International Macroeconomics (1): World Markets in Goods and Credit
15. International Macroeconomics (2): Purchasing-Power Parity (PPP) and Exchange Rates

### **Textbook/Reference Materials:**

Robert J. Barro, *Macroeconomics: A Modern Approach* <Textbook>  
N. Gregory Mankiw, *Macroeconomics, 4<sup>th</sup> Ed.*  
Jack Hirshleifer et al, *Price Theory and Applications, 7<sup>th</sup> Ed.*

### **Evaluation:**

Mid-term examination and term paper.

## Courses in the Student's Major

### 2. Introduction to Financial Reporting

Co-ordinator: NOGUCHI Akihiro  
Class: Mondays, 08:45~10:15  
Place: School of Economics, Seminar Room 7

**Prerequisites:** Ability to discuss intermediate accounting in English. Participation by NUPACE students is contingent upon there being places available in the class.

This course provides students with a fundamental understanding of the theory and application of accounting principles generally accepted internationally.

#### **Topics to be covered:**

1. Introduction
2. Chapter 1 Financial Accounting and Accounting Standards
3. Chapter 2 Conceptual Framework for Financial Reporting
4. Chapter 3 The Accounting Information System
5. Chapter 4 Income Statement and Related Information
6. Chapter 5 Statement of Financial Position and Statement of Cash Flows
7. Chapter 7 Cash and Receivables
8. Chapter 8 Valuation of Inventories: A cost-basis approach
9. Chapter 9 Inventories: Additional valuation issues
10. Chapter 10 Acquisition and Disposition of Property, Plant, and Equipment
11. Chapter 11 Depreciation, Impairments, and Depletion
12. Chapter 12 Intangible Assets
13. Chapter 13 Current Liabilities, Provisions, and Contingencies
14. Chapter 14 Non-current Liabilities
15. Summary

#### **Textbook:**

Donald E. Kieso, Jerry J. Weygandt, Terry D. Warfield, *Intermediate Accounting, IFRS ed., Volume 1, 1<sup>st</sup> ed.*, Wiley. ISBN 978-0-470-61630-7

#### **Evaluation:**

Attendance and oral presentation in English.

### 3. Law and Economics Workshop

Co-ordinators: ARAYAMA Yuko & MATSUURA Yoshiharu  
Class: Wednesdays, 17:00~18:30 (every two weeks; check the workshop calendar)  
Place: School of Economics, Seminar Room 2

**NB.** This is a one-year course, which students may commence in either April or September. Those students attending for one semester only cannot receive credits. They may, however, sit in on the classes. The course calendar should be checked regularly on the School of Economics website.

This workshop is jointly-organised by the Schools of Economics and Law to promote a theoretical and practical understanding of legal regulations imposed on economic activities. A minimum of 15 sessions will be held during the year according to the class calendar. The workshop will discuss the following topics in Law & Economics to help promote an understanding of human behaviour, social contracts and legal structure in our modern society. The workshop will also invite several prominent scholars and practitioners in the field of law and economics to present their ideas.

#### **Topics to be covered:**

Introduction: Law and Economic Activities

## Courses in the Student's Major

### Topic 1: Market Activities and Law

Economic Behaviour of Households and Firms  
Projection of Economic Activities to Law

### Topic 2: Property Rights and Property Law

Institutional Arrangements of Law for Property  
An Economic Theory of Property Rights

### Topic 3: Contract Law

Topics in the Economics of Contract Law  
An Economic Theory of Contract

### Topic 4: Tort Liability and Tort Law

Automobile Accidents and Human Causalities  
Economics of Tort Liability  
Transaction Costs and Property Rights

### Topic 5: Special Topics in Law and Economics

Transaction Costs and Economic Efficiency of Institutional Arrangements  
Abuse of Superior Bargaining Position: What is monopoly all about?  
F. Hayek and the Rule of Law

#### **Textbook:**

Robert Cooter & Thomas Ulen, *Law and Economics 4<sup>th</sup> ed.*, Pearson (2003).

#### **Reference Materials:**

Students are strongly recommended to check the Becker-Posner Blog (<http://www.becker-posner-blog.com/>).

#### **Evaluation:**

One written term paper for credit. Active participation in classes will be reflected in the evaluation.

## School of Engineering

### **1. Academic, Scientific, and Technical English**

Co-ordinator: Laurence DRYDEN (dryden51@me.com)

Class: Tuesdays, 16:30~18:00 (seven sessions in total; Oct 11, Oct 25, Nov 8, Nov 29, Dec 20, Jan 10, Jan 17)

Place: IB, Room 014

This series of special lectures, conducted entirely in English, provides guided practice in written and spoken English in academic, scientific, and technical contexts. Lectures include illustrated presentations and activities for students to apply their learning. The series is open to native speakers and non-native speakers of English.

#### **Topics to be covered:**

1. Simplicity and clarity in English
2. English grammar: Common problems
3. Readability I: Sentences and paragraphs
4. Readability II: Parallelism and other matters of style
5. Readability III: Writing scientific papers
6. Public speaking at international conferences
7. Email, CVs, and job applications

#### **Reference Materials:**

Students receive all printed materials for each lecture from the instructor. They also receive extensive annotated bibliographies of resources for academic, scientific, and technical English.

## Courses in the Student's Major

### **Evaluation:**

Attendance and participation: Students who attend five or more lectures and participate earnestly in activities receive 1 credit. More detailed information will be given at the first lecture.

### **2. Advanced Lecture on System Safety of Machinery**

Co-ordinator: YAMADA Yoji  
Class: Mondays, 8:45~10:15  
Place: School of Engineering, Building 2, Room 221  
Capacity: Maximum 5 NUPACE Students

**NB.** This course is only open to third year undergraduate students or above, who are majoring in Engineering.

Securing safety of mechanical systems can be achieved by risk assessment which is followed by risk reduction measures based upon the assessment results. The course aims at quantification of the overall risk management processes.

### **Topics to be covered/Goals:**

1. Understanding and performing risk assessment processes
2. Understanding methodology of probabilistic risk assessment
3. Evaluating the reliability of safety-related systems from a viewpoint of functional safety

### **3. Civil Engineering and Policies for Developing Countries II**

Co-ordinator: HAYASHI Kiichiro (Tel. 789-5383)  
Class: Wednesdays, 13:00~16:15  
Place: School of Engineering, Building 9, Room 911

**NB.** This course is only open to students specialising in civil engineering. An orientation, at which a detailed course schedule will be distributed, is to be held on Wednesday, Oct 5, 2011.

The objective of this course is to study various issues, including sustainable development, environmental management, and international co-operation to acquire a fundamental knowledge of civil engineering in developing countries.

### **Topics to be covered:**

1. The concept of sustainable development
2. Environment and resource issues in developing countries
3. International environmental management I (multilateral environmental agreements)
4. International environmental management II (international organizations)
5. International co-operation

### **Reference Materials:**

To be distributed in class

### **Evaluation:**

Students will be evaluated on attendance and written reports.

### **4. Introduction to Civil Engineering & Architecture**

Co-ordinator: ITOH Yoshito (Room 7-306; 789-3905)  
Class: Fridays, 13:00~16:15 (Lessons will be held two to three times a month)  
Place: School of Engineering, Building 8, Room 210

**NB.** An orientation for this course, at which a detailed course schedule will be distributed, will be held

## Courses in the Student's Major

on October 7<sup>th</sup>, 2011.

The objectives of this course are (1) to establish scenarios for certain social infrastructure projects, and thereby introduce relevant civil engineering theories and construction technology, as well as conduct site-visits; (2) to survey, through technical site visits, various aspects of urban and architectural studies, including building material experiments, energy conservation, and the recent development of regional disaster mitigation activities.

### **Topics to be covered:**

Oct 7	Orientation (Y. Itoh/M. Hirohata)
Oct 21	Lecture and Site-visit 1: Building Material (I. Maruyama)
Nov 4	Lecture: Social infrastructure and civil engineering (1) (Y. Matsui <Central Nippon Expressway Co., Ltd.>)
Nov 11	Lecture and Site-visit 2: Energy conservation systems of the Engineering & Science Building (I. Saito)
Nov 25	Site-visit 3: Highway Traffic Control Center and Tokai-Hokuriku Highway (Central Nippon Expressway Co., Ltd.)
Dec 9	Site-visit 4: Construction sites of Toyota-Higashi Junction of the New Tomei Expressway (Central Nippon Expressway Co., Ltd.)
Dec 16	Lecture: Social infrastructure and civil engineering (2) (Y. Matsui <Central Nippon Expressway Co., Ltd.>)
Jan 13	Lecture and Site-visit 5: Nagoya University Disaster Mitigation & Management Office ( <a href="http://www.seis.nagoya-u.ac.jp/taisaku/">http://www.seis.nagoya-u.ac.jp/taisaku/</a> ) (J. Tobita)

### **Evaluation:**

Students will be evaluated on attendance and written reports.

## **5. Motor Control and Information Processing in the Biological System**

Co-ordinator:	OBINATA Goro
Class:	Mondays, 14:45~16:15
Place:	ES, 031

**NB.** This course is only open to graduate students.

The goal of this lecture is to understand human movements as the interaction of a biological model with the physical world. Specific objectives include the following:

1. Structure of the nervous systems
2. Coding and processing of sensory information
3. Link between neural signals and muscle contraction
4. Strategies used by the nervous system to control muscle force
5. Neural basis of behaviour

### **Topics to be covered:**

Oct 4	Structure of the nervous system
Oct 18	Synaptic transmission
Nov 1	Coding of sensory information 1
Nov 8	Coding of sensory information 2
Nov 15	Processing of sensory information
Nov 22	Visual system
Nov 29	Muscles and their control 1
Dec 6	Muscles and their control 2
Dec 13	Brain and motor output
Dec 20	Integration systems: neural basis of behaviour 1
Jan 17	Integration systems: neural basis of behaviour 1

## Courses in the Student's Major

Jan 24 Summary

### Reference Materials:

Fred Delcomyn, W. H., *Foundation of Neurobiology*, Freeman and Company, New York, 1998.  
To be distributed in class.

### Evaluation:

Active participation and report

## 6. Overview of Advanced Electrical, Electronic & Information Engineering

Co-ordinator: TABATA Akimori  
Class: Tuesdays, 13:00~14:30 (**13:00~17:00 during plant visits**)  
Place: School of Engineering, Building 1, Room 132

This course comprises lectures and visits to technical plants in the Tokai area. In the lectures, current topics in advanced electrical, electronic and information engineering will be taught. The plant visits introduce students to advanced practices in vehicular, electronic power, and communication technologies.

### Topics to be covered:

1. Development of Fusion Energy Bringing the Power of the Sun to Earth (N. Ohno)
2. Introduction to Space Plasma Dynamics (K. Shiokawa)
3. Introduction to Industrial Applications of Plasmas (H. Toyoda)
4. Challenges in Si-based Nanoelectronics (S. Miyazaki)
5. Solid State Lighting (H. Amano)
6. Japanese Language Processing (S. Sato)
7. Advanced Research and Development of intelligent Systems and Ubiquitous Computing (N. Kawaguchi)
8. Visit to CHUBU ELECTRIC POWER CO., INC. (Y. Sugita)
9. Visit to TOYOTA MOTOR CORPORATION (T. Teratani)
10. Visit to TOYOTA GOSEI CO., LTD. (N. Shibata)
11. Visit to TOYOTA SMART-GRID EXPERIMENTAL FIELD (M. Kawamoto)

### Evaluation:

Written reports after each lecture and plant visit.

## 7. Science & Technology in Japan

Co-ordinator: Mehrdad PANAPOUR TEHRANI (panahpour@nuee.nagoya-u.ac.jp)  
Class: Wednesdays, 13:00~14:30  
Place: School of Engineering, Bldg. 1, Room 131

This course introduces the history, the current state and future prospects of R&D (research and development) in Japan's Industries. This class will be held in "omnibus-style", and lectured in English.

### Topics to be covered:

1. Image Processing
  - Background and Fundamentals
  - Applications in Computer Vision
  - Applications in 3D Vision
2. Embedded Computing Systems
  - Fundamental and Trends
  - Low Energy Design
  - Automotive Applications
3. Famous Electron Microscopists in Japan



## Courses in the Student's Major

- Sumio Iijima: High resolution image of carbon nano-tube
- Akira Tonomura: Electron Holography
- Present and Future Possibilities of Electron Microscopy

### References:

- Digital Image Processing*, Rafael C. Gonzalez & Richard E. Woods, Addison-Wesley, 2002.  
*Machine Vision: Automated Visual Inspection and Robot Vision*, David Vernon, Prentice Hall, 1991.  
(Available online at: [homepages.inf.ed.ac.uk/rbf/BOOKS/VERNON/](http://homepages.inf.ed.ac.uk/rbf/BOOKS/VERNON/))  
*Programming Embedded Systems, Second Edition*, Michael Barr and Anthony Massa, O'Reilly Media 2006  
*Designing Embedded Processors: A Low Power Perspective*, Henkel, Jeorg and Parameswaran, Sri, Springer  
Published 2007.  
*Transmission Electron Microscopy A Textbook for Materials Science*, Williams, David B., Carter, C. Barry,  
Springer  
*Transmission Electron Microscopy Physics of Image Formation*, L. Reimer, H. Kohl, Springer

### Evaluation:

- Attendance 40%  
One report per lecture: 30%  
(Summarize the content of each lecture in a single A4 page and submit it as a DOC file by email to the corresponding lecturer by the next lecture. Be innovative and perhaps include your idea and related topics in the report.)  
Final presentation: 30%  
(Choose a topic of interest from the lectures content or your topic of interest. Presentation time is 10min, following with 5min Q&A.)

### Contacts:

- Kazuyoshi Tatsumi: Tel: 5135/Fax: 5137; E-mail: [k-tatsumi@nucl.nagoya-u.ac.jp](mailto:k-tatsumi@nucl.nagoya-u.ac.jp)  
Gang Zeng: Tel: 5147/Fax: 5889; E-mail: [sogo@ertl.jp](mailto:sogo@ertl.jp)  
Mehrdad Panahpour Tehrani: Tel/Fax: 3628; E-mail: [panahpour@nuee.nagoya-u.ac.jp](mailto:panahpour@nuee.nagoya-u.ac.jp)

## Graduate School of Environmental Studies

### 1. Biological Resource Management Policies

- Co-ordinator: WATANABE Mikihiko ([miwata@urban.env.nagoya-u.ac.jp](mailto:miwata@urban.env.nagoya-u.ac.jp))  
Class: Mondays, 16:30~18:00  
Place: Graduate School of Environmental Studies, Lecture Room 1

The objective of the course is to provide students with: 1) an explanation of the contents of biological and genetic resources; 2) a definition of access and benefit-sharing of the resources (ABS); 3) a description of the political situation of ABS; and 4) an introduction of cases of resource utilisation. Students are required to understand the meaning of biological and genetic resources and understand the significance of the resources in the context of biodiversity conservation. Political situations regarding resources are especially necessary to understand.

### Topics to be covered:

1. Plan of the Course/What are biological and genetic resources?
2. CBD and Access to Biological Resources and Benefit-sharing (ABS)
3. CBD, ABS, and the International Regime – Political situation
4. CBD and Traditional Knowledge (TK)
5. Intellectual Property Rights (IPRs) and Biological and Genetic Resources – Discussion on 'bio-piracy', TK, and intellectual property rights (IPRs)
6. Economic Values of Biological Resources in the Context of ABS
7. The Commons – A unique community resources management scheme

## Courses in the Student's Major

8. Case 1 (Strategy): Bio-prospecting – Classic case of Merk-INBO
9. Case 2 (Policy): Investing in biodiversity – Case of Indonesia
10. Case 3 (International Policy): Those who have both abundant resources and technology – Australia
11. Presentation by Students and Discussion 1
12. Presentation by Students and Discussion 2
13. Presentation by Students and Discussion 3
14. Summary of Lectures

### Lecture Plans:

#### 1. Plan of the Course/What are biological and genetic resources?

The first lecture provides students with a detailed plan of the structure of the course and its aims. This will be followed by an explanation of definitions of biological and genetic resources. Biological and genetic resources (biological resources, in short) are the main components of biodiversity and they are crucial sources for biotechnology and bio-industry. Knowledge of the utilisation of the resources comprises a critical step to understanding biodiversity conservation, its sustainable use, and fair and equitable sharing of the benefits.

### Contents

- 1 Definition of biological and genetic resources
  - 1) Definition
- 2 Differences in definitions
  - 1) Some factors that change definitions
  - 2) Difference in recognition – Old-biotechnology and new-biotechnology
- 3 Categories of resources
  - 1) Utilisation in various markets and fields

### References

- [1] Convention on Biological Diversity, Convention Text, <http://www.cbd.int/convention/convention.shtml>
- [2] Kate, K. T. and Laird, S. A. (1999) *The commercial use of biodiversity – access to genetic resources and benefit-sharing*, Earthscan

#### 2. CBD and Access to Biological Resources and Benefit-sharing (ABS)

The Convention on Biological Diversity stipulates how the contracting parties should treat biological and genetic resources. Amongst the three objectives of CBD, the third objective is the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources and is called 'ABS'. ABS has a critical role in biological resources management. In order that the students can understand its meaning, the lecture will be given using components below.

### Contents

- 1 ABS – its original meaning, intention and Article 15
  - 1) Article 15
  - 2) Meanings of PIC and MAT
- 2 Other related Articles 8(j), 16, and 19
- 3 ABS in problematic – the reasons why it is stagnating
  - 1) Technical limitation
  - 2) Historical background and emotional and emotional factors – e.g. plant hunters
  - 3) Prominent characteristics of biological and genetic resources

### References

- [1] Convention on Biological Diversity, Official Website, <http://www.cbd.int/>
- [2] Secretariat of the Convention on Biological Diversity (2008) *Access and benefit-sharing in practice: trends in partnerships across sectors*, Technical Series No. 38
- [3] Japan Bio-industry Association (2007) *High-level expert meeting in Tokyo 2007 – Addressing the access and benefit-sharing (ABS) challenges in the context of the Convention on Biological Diversity*, Symposium proceedings

## Courses in the Student's Major

held on 8<sup>th</sup> and 9<sup>th</sup> February 2007 in Tokyo, organised by Japan Bio-industry Association

### 3. Nagoya Protocol – CBD, ABS, and the International Regime

As explained in the previous lecture, ABS is stagnating, partly because of its technical difficulties and partly because of its political situation. However, this eventually evolved into the Nagoya Protocol, the contents of which will be explained in this lecture..

#### Contents

- 1 Concept of misappropriation – 'Bio-piracy'
- 2 Emergence of Like-Minded Mega-Diverse Countries (LMMCs)
- 3 Mandate of International Regime (IR)
- 4 International certificate of origin/source/legal provenance
- 5 Nagoya Protocol

#### References

- [1] Mgbeoji, I. (2006). *Global biopiracy – patents, plants, and indigenous knowledge*, UBC Press
- [2] Reports of the meetings of the Ad Hoc Open-ended Working Group on Access and Benefit-sharing, <http://www.cbd.int/abs/>
- [3] Report of the meeting of the Group of Technical Experts on an international recognized certificate of origin/source/legal provenance, <http://www.cbd.int/doc/?mtg=absgte-01> (sited on 5<sup>th</sup> August 2009)

### 4. CBD and Traditional Knowledge (TK)

Traditional knowledge (TK) plays an important role in management of biological and genetic resources. Organic substances with no economic values may become resources with high economic values by TK. Handling TK simultaneously has to bear technical difficulties, partly because it is intangible and partly because it is difficult to judge for whom it belongs. In order that the students understand what TK is, the lecture consists of the components below.

- 1 Meaning of traditional knowledge
- 2 Retention of TK by indigenous people and local communities
- 3 Protection or utilisation of TK
- 4 Akwe: Kon Guidelines

#### References

- [1] Laird, S. A. (2002). *Biodiversity and traditional knowledge – equitable partnerships in practice*, Earthscan
- [2] Muller, M. R. (2006). *The protection of traditional knowledge: Policy and legal advances in Latin America*, IUCN

### 5. Intellectual property rights (IPRs) and Biological and Genetic Resources – Discussion on 'bio-piracy', TK, and intellectual property rights (IPRs)

Biological and genetic resources can be protected by intellectual property rights (IPRs), *i.e.* patents. Rights of inventors have to be protected by the law. This protection, however, may cause conflicts between providers of resources and users of them. In order to describe this situation, the lecture consists of the components below.

- 1 IPR and biodiversity
- 2 Related regime – TRIPs Agreement of WTO, discussion at WIPO
- 3 Conflict on TK – To whom does TK belong? Is it for every one? – A case of conflict between India and the US on turmeric
- 4 Discussion – Should TK be patented?

#### References

- [1] Dutfield, G. (2000). *Intellectual property rights, trade and biodiversity*, Earthscan
- [2] Dutfield, G. (2004). *Intellectual property, biogenetic resources and traditional knowledge*, Earthscan
- [3] Swanson, T. M. (1995). *Intellectual property rights and biodiversity conservation – an interdisciplinary analysis of*

## Courses in the Student's Major

*the values of medical plants*, Cambridge University Press

### 6. Economic Values of Biological Resources in the Context of ABS

Biodiversity has a various economic values. In addition, biological and genetic resources are thought to have economic values. They are resources, because they have values. This lecture quickly reviews a basic classification of all the economic values. This is followed by introduction of valuation methods and classification at intermediary or advanced levels.

- 1 Classification of economic values – A quick review
- 2 Values and format of benefits
- 3 Unique value by bio-prospecting such as drug discovery and negative values – pathogen
- 4 Evaluation of biological resources – two advanced methods

#### References

- [1] Dixon, J. A., Scura, L. F., Carpenter, R. A., and Sherman, P. B. (1986) *Economic analysis of environmental impacts*, Earthscan
- [2] Kalof, L. and Satterfield, T. eds. (2005). *The Earthscan reader in environmental values*, Earthscan
- [3] Rietbergen-McCracken, J. and Abaza, H. eds. (2000). *Environmental valuation – A world wide compendium of case studies*, Earthscan
- [4] Hanley, N. and Mourato, S., and Wright, R. E. (2002). *Choice modelling approaches: A superior alternative for environmental valuation?*, in Hanley, N. and Roberts, C. J. eds. *Issues in environmental economics*, Blackwell
- [5] Winpenny, J. T. (1991). *Values for the environment – A guide to economic appraisal*, HMSO
- [6] Hensher, D. A., Rose, J. M., and Greene, W. H. (2005). *Applied choice analysis – A primer*, Cambridge University Press
- [7] Polansky, S. ed. (2002). *The economics of biodiversity conservation*, Ashgate

### 7. The Commons – A unique community resources management scheme

The commons or common property resources are regarded to be 'a unique style' of natural resources management. In this context, the resources include biodiversity. In addition to this, the commons consists of traditional technology, community organising and institutions that may be thought to be similar to TK. Hence, the commons plays an important role in the context of biological resources management.

- 1 Meaning of the commons – Is the commons tragedy?
- 2 Aspects of the commons – Significance of community-based natural resource management
- 3 Cases of the commons

- [1] Ostrom, E. (1990). *Governing the commons – The evolution of institutions for collective action*, Cambridge University Press
- [2] Ostrom, E., Gardner, R., and Walker, J. (1994). *Rules, games, and common-pool resources*, Michigan University Press
- [3] Bromley, D. W. ed. (1992). *Making the commons work – Theory, practice, and policy*, ICS Press

### 8. Case 1 (Strategy): Bio-prospecting – Classical case of Merk-INBIO

One of the prominent characteristics of biological and genetic resources is bio-prospecting. This classic case of Merk-INBIO can describe a very basic scheme for bio-prospecting under ABS of CBD. Through this case, students are expected to understand the strategy of the firm regarding biological and genetic resources.

- 1 Agreement between Merk and INBio for bio-prospecting in Costa Rica
- 2 Lessons from this case

#### References

- [1] Reid, W. V., Laird, S. A., Meyer, C. A., Gámez, R., Sttenfield, A., Janzen, D. H., Gollin, M. A., and

## Courses in the Student's Major

Juma, C. (1993). *Biodiversity prospecting : using genetic resources for sustainable development*, World Resources Institute

- [2] Sampath, P. G. (2005). *Regulating bioprospecting – institutions for drug research, access and benefit-sharing*, United Nations University Press

### 9. Case 2 (Policy): Investing in Biodiversity – Case of Indonesia

The World Bank uses the term, investing in biodiversity, when the Bank explains its policy of projects on biodiversity conservation. The Bank recognises biodiversity as resources and it intends to conserve it for future use. The Bank attempts to realise both development and conservation through integrated approach. The lecture tries to explain its contents, significance and effectiveness.

1 Basic aspects of Integrated Conservation and Development Projects (ICDP)

2 Case of Indonesia

3 Lessons learned

### References

- [1] Wells, M., Guggenheim, S., Khan, A., Wardojo, W., and Jepson, P. (1999). *Investing in biodiversity – A review of Indonesia's integrated and conservation projects*, the World Bank
- [2] Guatan, M., Lele, U., Kartodihardjo, H., Khan, A., Erwinsyah, I., and Rana, S. (2000). *Indonesia – The challenges of World Bank involvement in forests*, World Bank

### 10. Case 3 (International Policy): Those who have both abundant resources and technology – Australia

There used to exist a dichotomy that developing countries have rich biological resources and developed countries don't, and that the former do not have technologies and the latter do. Recently, however, some countries are regarded to have both resources and technology. A typical example of this is Australia. China and India may be added to this example as emerging economies. The Australian case implies ABS regulation as international policy.

1 Biodiscovery Act 2004 in Queensland

2 Case of ABS

3 Matter of indigenous people

- [1] Laird, S., Monagle, C., and Johnston, S. (2008). *Queensland biodiversity collaboration – The Griffith University AstraZeneca partnership for natural product discovery*, UNU-IAS Report, United Nations University
- [2] Australia, Biodiscovery act 2004,  
<http://www.legislation.qld.gov.au/LEGISLTN/ACTS/2004/04AC019.pdf>, sited on 21st August 2009

### 11. Presentation by students and discussion 1) – 3)

Students are required to make a presentation on a World Bank/GEF project that is related to biodiversity. A list of projects is introduced. Each student can choose a project in which he/she is interested. Through preparation for the presentation, students are expected to understand how the projects are designed.

Choose your project from:

<http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/0,,menuPK:51563~pagePK:95873~pPK:95910~theSitePK:40941,00.html>

OR

[http://www.thegef.org/gef/gef\\_projects\\_funding](http://www.thegef.org/gef/gef_projects_funding)

### Evaluation:

Presentation: 100%

**NB.** Credits will not be awarded where the student's attendance rate is less than 80%

## Courses in the Student's Major

### 2. Biological Resource Management Projects

Co-ordinator: NAGAISHI Masafumi (nagaishi@urban.env.nagoya-u.ac.jp)  
Class: Wednesdays, 08:45~10:15  
Place: Graduate School of Environmental Studies, Lecture Room 3

There are various difficulties in the implementation of biological resource management projects. This course provides case studies of biological resource management projects and project management method. In the course of lectures, students will discuss good practices and appropriate solutions for projects.

#### Goals:

1. To understand the importance and problems of biological resource management.
2. To explain the problems on and lessons learned from the case study projects

#### Topics to be covered:

1. Biological resource management
2. Approaches to biological resource management
3. Viewpoints on biological resource management projects
4. Country reports
5. The International cooperation framework
6. Framework of Biological resource management projects in JICA
7. Case studies and discussion
8. Review

#### Evaluation:

Students are required to prepare presentations of country reports and case studies.

### 3. Climate Change Policies

Co-ordinator: WATANABE Mikihiro (miwata@urban.env.nagoya-u.ac.jp)  
Class: Mondays, 13:00~14:30  
Place: Graduate School of Environmental Studies, Lecture Room 1

The objective of the course is to provide students with basic facts and knowledge on policy measures pertaining to climate change. The course has a unique style. Distinguished external lecturers will give lectures, in addition to lectures by the course coordinator. The basic facts that the students should know are contents of the United Nations Framework Convention on Climate Change and the Kyoto Protocol, including emission trading and CDM. Furthermore, other related matters such as climate change and cities, climate change and the business sector, and the economics of climate change will be explained.

This year, all the students are required to participate in a model UNFCCC, assuming hypothetical roles of delegation parties to the UNFCCC, and to make presentations on the parties' policies.

Some lectures will be scheduled irregularly. Hence, kindly be sure to attend the first lecture/orientation.

#### Topics to be covered:

1. Orientation and screening test
2. Phenomena of climate change 1
3. Phenomena of climate change 2
4. Legal aspects of UNFCCC
5. Scenarios for the Post-Koto Era
6. Economics of climate change
7. Economics of climate change (continued), REDD+ , and the Rio Conventions

## Courses in the Student's Major

8. Model UNFCCC 1 (mainly group presentations)
9. Model UNFCCC 2 (mainly group discussions)
10. Climate change and business sector 1
11. Climate change and business sector 2
12. Climate change and cities 1
13. Climate change and cities 2
14. Model UNFCCC (mainly individual presentations)

### Reference Materials:

IPCC (2007). *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment, Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, Pachauri, R.K and Reisinger, A. eds.]. IPCC <http://www.ipcc.ch/ipccreports/ar4-syr.htm>

(Other references will be specified in each lecture.)

### Evaluation:

Group Presentation: 50%  
Individual Presentation: 50%.

**NB.** Credits will not be awarded where the student's attendance is less than 80%.

**NB.** This course is designed for postgraduate level students. Hence, in the first lecture, students will be required to sit a screening test on very basic knowledge of climate change.

## 4. Environmental Industry Systems

Co-ordinators: WATANABE Mikihiro (miwata@urban.env.nagoya-u.ac.jp)  
NAGAISHI, Masafumi (nagaishi@urban.env.nagoya-u.ac.jp)  
Class: Thursdays, 10:30~12:00  
Place: Graduate School of Environmental Studies, Lecture Room 1

This course tries to realise a unique style of learning. The course consists of: 1) lectures by external representatives from industries, local government, and international aid agencies; 2) presentations and/or discussions amongst the students, and 3) discussions between the students and experts from the industries. Lectures are related to all fields of the environment, including climate change, water and waste management, and biodiversity. To complement this class, students are strongly recommended to take the course, 'Theory of Environmental Resources Management'.

### Topics to be covered:

1. Lecture by Industry 1
2. Lecture by Industry 2
3. Lecture by Industry 3
4. Lecture by Industry 4
5. Lecture by Industry 5
6. Lecture by Industry 6
7. Lecture by Industry 7
8. Lecture by Industry 8
9. Lecture by Industry 9
10. Lecture by industry 10
11. Presentations by students 1
12. Presentations by students 2
13. Presentations by students 3
14. Presentations by students 4

### Reference Materials:

References will be specified in each lecture.

## Courses in the Student's Major

### **Evaluation:**

Presentation: 50%

Report: 50%

**NB.** Credits will not be awarded where the student's attendance is less than 80%.

### **5. Planning and Design Studio for Historical Environment**

Co-ordinator: NISHIZAWA Yasuhiko

Class: Thursdays, 9:00~12:00 (2<sup>nd</sup> Quarter: 17 November 2011~19 January 2012)

Place: Engineering and Science Building (ES), 4F, Room 435, Graduate Student Studio

Class Capacity: Maximum of 2 NUPACE students

**NB.** This is an advanced studio workshop for graduate students with experience of architectural or urban design studios.

This design studio aims to teach design theory, methods of preservation of historical heritages, and urban planning in historical districts. In practice, this year students are requested to draw up proposals for the preservation and renewal of an old wooden house "Toyoda Sasuke Tei" built around 1920 along the "Cultural Path" in the downtown of Nagoya. Students may propose to convert this building into a community centre, providing new facilities for neighbours, visitors, and Nagoya citizens.

### **Topics to be covered:**

Nov 17 Explanation of works and introductory lecture

Nov 18 (p.m.) Research on the site and historical heritage of the work

Nov 24 First esquisse checking concept and outline of planning

Dec 1 Second esquisse checking concept and outline of planning

Dec 8 Third esquisse checking plan, section and façade of buildings or townscape

Dec 15 First review of works

Dec 22 Fourth esquisse checking changing works, complying with first review

Jan 12 Fifth esquisse checking final work

Jan 19 Final review of works

### **Evaluation:**

Presentation of work in final review: 100%

### **6. Politics and Diplomacy in the International Environment**

Co-ordinator: IGUCHI Haruo (iguchi@info.human.nagoya-u.ac.jp)

Class: Mondays, 14:45~16:15

Place: Graduate School of Information Science, 1F, Lecture Room 3

**NB.** This course is open only to graduate students.

This course will explore historical and theoretical aspects of international politics in the Twentieth Century with emphasis on international relations since the end of the Second World War. During the first classroom session I plan to hand out or present a more detailed syllabus.

### **Textbook:**

The following book is scheduled to be used as a textbook:

Joseph S. Nye, Jr. and David A. Welch, *Understanding International Conflicts: An Introduction to Theory and History*. Eighth Edition. Longman, 2011.

Chapter 1: Is there an Enduring Logic of Conflict in World Politics?

Chapter 2: Explaining Conflict and Cooperation: Tools and techniques of the trade

Chapter 3: From Westphalia to World War I



## Courses in the Student's Major

Chapter 4: The Failure of Collective Security and World War II

Chapter 5: The Cold War

Chapter 6: Post-Cold War Conflict and Co-operation

Chapter 7: Globalisation and Interdependence

Chapter 8: Information Revolution and Transnational Actors

Chapter 9: What Can We Expect in the Future?

### **Evaluation:**

Grades will be based on active participation in class and a research paper at the end of the semester; details regarding these issues will be discussed during the first classroom session.

## **7. Practice in Biological Resource Management**

Coordinators: NAGAISHI Masafumi (nagaishi@urban.env.nagoya-u.ac.jp)

WATANABE Mikihiro (miwata@urban.env.nagoya-u.ac.jp)

Class: Tuesdays, 13:00~14:30

Place: Graduate School of Environmental Studies, Seminar Room 2

This course will introduce students to concrete measures necessary for carrying out a bio-resources management project. Exercises consist of: 1) necessary analysis and methods for formulation and management of the projects on bioresources, hypothetical but useful cases being used; 2) economic valuation methods for bioresources, including cost-benefit analysis; and 3) role-playing to reach an agreement on the component(s) of the project.

## **8. Studio Workshop of Architectural Design**

Co-ordinators: KATAGI Atsushi

Class: Thursdays, 8:45~12:00 (1<sup>st</sup> Quarter: 6 October 2011 ~ 10 November 2011)

Place: Engineering and Science Building (ES), 4F, Room 435, Graduate Student Studio

Class Capacity: Maximum of 2 NUPACE students

**NB.** This is an advanced studio workshop for graduate students enrolled in architectural courses. Students with no experience of architectural studio workshops will not be admitted.

Studio workshop of an architectural project under a given site and program, that aims to develop the student's skills in analysis, design and presentation. This year, we have a joint studio with Prof. Barrie Shelton of Melbourne University, to survey a superblock in the Gokiso area, Nagoya, and propose its improvement.

### **Evaluation:**

Presentation of work evaluated by jury: 100%

## **9. Sustainability and Environmental Studies**

Co-ordinator: Victor Shiholo MUHANDIKI (victor@urban.env.nagoya-u.ac.jp)

Class: Fridays, 10:30~12:00

Place: Graduate School of Environmental Studies, Lecture Room 3

The objective of the course is to provide students with several definitions, views, interpretations, and analyses of the notion of sustainability. The lectures are to be given by several lecturers, who may include external guest researcher(s).

Sustainability covers broad areas. It is, hence, inevitable that the course consists of various topics. Having said so, the course tries to clarify the topics from three viewpoints:

1. Society and/or social sciences;
2. Observation and data by natural sciences; and
3. Urban and spatial perspective.

## Courses in the Student's Major

One common element that should be noted here is 'safety'.

### **Topics to be covered:**

1. Sustainability criteria by cost-benefit analysis with levels of environmental ethics
2. Integrated lake basin management (ILBM)
3. Global change monitoring by remote sensing
4. Sustainable urban planning and design
5. Kosa and desertification
6. Natural disaster and the society: The 2004 tsunami and its impact on Aceh of Indonesia
7. Safe production and consumption of chemical products
8. Sustainable transport system
9. Toward environmental friendly and sustainable building
10. Environmentally responsible behaviour and subjective well-being
11. Lectures by a guest instructors

### **Reference Materials:**

References will be specified in each lecture.

### **Evaluation:**

Reports: 100%

## **10. Water and Waste Management Engineering**

Co-ordinator: Victor Shiholo MUHANDIKI (victor@urban.env.nagoya-u.ac.jp)

Class: Thursdays, 08:45~10:15

Place: Graduate School of Environmental Studies, Lecture Room 1

Water pollution and solid waste are some of the major environmental problems facing our society today. In this class we will learn about various technologies and measures applied in drinking water supply, control of pollution of water bodies, and solid waste management.

**Prerequisites:** Water and Waste Management Policies, Environmental Transport Phenomena, Advanced Theory of River Basin Management

### **Topics to be covered:**

- A) THE HYDROLOGIC CYCLE AND DRINKING WATER SUPPLY
1. The Hydrologic Cycle and Pollution of Water Bodies
    - 1.1 Water cycle
    - 1.2 Pollution of water bodies
    - 1.3 Self purification of water bodies
  2. Drinking Water Supply
    - 2.1 Sources of water
    - 2.2 Water treatment and water supply systems
    - 2.3 Water demand forecasting
- B) POINT AND NON-POINT SOURCE POLLUTION AND POLLUTION LOAD ESTIMATION
3. Point Source Pollution
    - 3.1 Domestic wastewater
    - 3.2 Industrial wastewater
    - 3.3 Livestock
  4. Non-point Source Pollution
    - 4.1 Agriculture
    - 4.2 Natural systems
    - 4.3 Urban non-point source pollution

## Courses in the Student's Major

- 4.4 Atmospheric deposition
- 5. Point and Non-point Source Pollution Load Estimation
  
- C) POINT AND NON-POINT SOURCE POLLUTION CONTROL
- 6. Domestic Wastewater Treatment Systems
- 6.1 Conventional treatment systems
- 6.2 On-site disposal systems and ecological sanitation
- 7. Industrial Wastewater Treatment Systems
- 8. Basin Management for Non-Point Source Pollution Control
- 8.1 Reforestation and afforestation
- 8.2 Catchment protection
- 8.3 Wetland restoration and construction
- 9. Inside-Water Body Measures for Pollution Control
- 9.1 Control of nuisance species
- 9.2 Control of water quality
  
- D) SOLID WASTE MANAGEMENT
- 10. Solid Waste Generation, Collection and Disposal
- 11. Waste Minimization, Recycling and Resource Recovery

### Reference Materials:

- Davis, M.L. and D.A. Cornwell (1998). *Introduction to Environmental Engineering*. McGraw-Hill, Inc., New York, USA.
- Dixon J.A., L.F. Scura, R.A. Carpenter and P.B. Sherman (1994). *Economic Analysis of Environmental Impacts*. Earthscan, London, UK. (also available in Japanese)
- Helmer, R. and I. Hespanhol (1997). *Water Pollution Control: A Guideline for the Use of Water Quality Management Principles*. E&FN Spon, London, UK.
- Hester, R.E. and R.M. Harrison (2002). *Environmental and Health Impact of Solid Waste Management Activities*. The Royal Society of Chemistry, Cambridge, UK.
- International Lake Environment Committee Foundation, ILEC (2007). *Integrated Lake Basin Management: An Introduction*. International Lake Environment Committee Foundation, Kusatsu, Japan. (available online at <http://www.ilec.or.jp>) (also available in Japanese)
- International Lake Environment Committee Foundation, ILEC (2005). *Managing Lakes and their Basins for Sustainable Use: A Report for Lake Basin Managers and Stakeholders*. International Lake Environment Committee Foundation, Kusatsu, Japan. (available online at <http://www.ilec.or.jp>) (also available in Japanese)
- International Lake Environment Committee Foundation, ILEC (2003). *World Lake Vision: A Call to Action*. International Lake Environment Committee Foundation, Kusatsu, Japan. (available online at <http://www.ilec.or.jp>) (also available in Japanese)
- Metcalf & Eddy, Inc. (1991). *Wastewater Engineering: Treatment and Reuse*. McGraw-Hill, Inc., New York, USA.
- Ministry of the Environment, Japan (2003). *Annual Report on the Environment in Japan 2003: Local Communities Leading the Transition to a Sustainable Society*. Ministry of the Environment, Japan, Tokyo, Japan. (available online at: <http://www.env.go.jp>)
- Novotny, V. and P. Brown, eds. (2007). *Cities of the Future: Towards Integrated Sustainable Water and Landscape Management*. IWA Publishing, London, UK.
- Novotny, V. (2003). *Water Quality: Diffuse Pollution and Watershed Management*. John Wiley & Sons, Inc., New York, USA.
- Okada, M. and S.A. Peterson (1999). *Water Pollution Control Policy and Management: The Japanese Experience*. Gyosei, Tokyo, Japan. (also available in Japanese)
- Tchobanoglous G., H. Theisen and R. Eliassen (1977). *Solid Wastes: Engineering Principles and Management Issues*. McGraw-Hill, Inc., New York, USA.
- World Commission on Dams, WCD (2000). *Dams and Development: A New Framework for Decision-Making, The Report of the World Commission on Dams*. World Commission on Dams. (available online at

## Courses in the Student's Major

<http://www.dams.org/>  
World Water Council, WWC (2000). *World Water Vision Commission Report: Vision for Water, Life and the Environment*. (available online at <http://www.worldwatercouncil.org>)

### **Evaluation:**

Report: 40%  
Examination: 60% (Students with an attendance rate exceeding 80% are eligible for the exam)

## Graduate School of International Development (GSID)

### **1. Comparative Asian Legal Systems**

Co-ordinator: SHIMADA Yuzuru  
Class: Thursdays, 8:45~10:15  
Place: Grad. School of International Development (GSID), 7F, Seminar Room 9 (710)

Legal systems that we are familiar with developed in Western European history and then spread worldwide. The interaction between state law and social, cultural, economic situations in non-European countries create complex legal situations that are different from those in European society. Because governments play a major role in national development through regulatory measures, an analysis of legal systems, one form of governmental power, is indispensable to development study. This course will argue how the rule of law, especially human rights protection, interacts with social, economic and cultural particularities in non-European countries.

### **Topics to be covered (tentative):**

#### **Part 1: Theory on Asian Law and human rights**

- a. Debates in Human rights: Asian way, right to development ....
- b. Analytical framework of Asian Law: Yasuda's hypothesis
- c. Universality and particularity of human rights: Comparing selected international and regional documents on human rights
- d. Differences and common features of Asian countries in the constitutional protection of human rights
- e. Civil and political rights
- f. Social rights
- g. Some important issues: State of emergency and the human rights enforcement system

#### **Part 2: Case study**

Case study through analysing constitutional provisions on human rights in selected Asian countries.  
(Moderated by participants)

### **Reference Materials:**

Relevant materials will be distributed.

### **Evaluation:**

Class attendance and papers.

### **2. Educational Development Planning and Evaluation (教育開発計画・評価論)**

Co-ordinator: YONEZAWA Akiyoshi  
Class: Thursdays, 08:45~10:15  
Place: Grad. School of International Development (GSID), 5F, Seminar Room 8 (512)

This course aims to consider the role of higher education within the framework of educational development planning and evaluation. Higher education plays an essential role in the contemporary knowledge-based society, and has its own context distinguished from primary and secondary education.

## Courses in the Student's Major

At the same time, education planning and evaluation is inevitably linked to issues of access to higher education, brain drain and brain gain typically occurring at the higher education level.

### **Topics to be covered:**

1. Historical origins of modern higher education
2. Access and equity in higher education
3. Knowledge economy and higher education
4. Assessment of international cooperation in higher education.

Participants are expected to examine the role and value of international cooperation in higher education.

### **3. Human Security and Law (人間の安全保障と法)**

Co-ordinator: YAMAGATA Hideo  
Class: Tuesdays, 16:30~18:00  
Place: Graduate School of International Development (GSID), Seminar Room 8

**NB.** This course is open to all NUPACE graduate students, and those undergraduate students affiliated to the School of Law.

Human Security is a concept which has gained popularity among members of the United Nations. It appeared in Human Development Report 1984 issued by UNDP and became one of the key concepts in modern international relations. "Freedom from fear" and "freedom from want" are basic ideas forming that new concept. Especially after the end of the cold war, the international community has more internal wars than interstate armed conflicts. The traditional concept of security centred on the national security, but now security of individuals is more important in peacetime as well as wartime. Gross violation of human rights is a typical example threatening human security of people. Failed states which are not willing to and able to protect civilians are increasing in number. In some cases, they give asylum to terrorists, who are indiscriminately engaging attacks against ordinary people even in developed countries. September 11 demonstrated that even the only one giant state was not immune from terrorist attacks. This course has an aim to understand the security issues in the framework of the Charter of the United Nations. First the collective security system is dealt with in comparison with the old balance of powers policy. Secondly the changing system of the UN collective security after 1990 will be addressed. Lastly lectures will be given on newly emerged concept of human security. Standpoint from which this course is offered is international law. This is one of the courses of law.

### **Topics to be covered:**

1. Introduction
2. Overview of the UN Collective Security System
3. The Paralyzed Security Council in the Cold War era
4. Korean War
5. Uniting for Peace Resolution
6. Peace-keeping Operations
7. Legal basis of PKO
8. The Concept of "International Peace and Security"
9. Economic Sanction
10. Economic Sanction involving Use of Force
11. Authorization to Use Force in the Gulf War
12. Changing Nature of Peace-Keeping Operations
13. Human Security in Human Development Report 1984
14. Human Security and Humanitarian Intervention
15. Written Examination

## Courses in the Student's Major

### **Reference Materials:**

Materials to be used for this course will be distributed in class.

### **Evaluation:**

Grades will be assessed on the basis of active participation in discussions (30%) and the final written examination (70%).

## **4. Japan's Development Experience (日本の開発経験)**

Co-ordinators: NISHIKAWA Yoshiaki & NISHIKAWA Yukiko  
Class: Wednesdays, 13:00~14:30  
Place: Graduate School of International Development (GSID), 8F, Auditorium

**NB.** This course is open to all NUPACE students.

This course examines the development and modernisation process of Japan from various perspectives, including both positive and negative. Lecturers from different disciplines deal with issues such as the economy, law, governments, rural areas, social security systems, education, peace-building, etc. Participants will understand the crucial issues pertaining to Japan's development experience, and consider the adaptability of this experience to other countries.

### **Topics to be covered\*:**

1. Introduction
- 2-3. Governance and Law
4. Economics
- 5-6. Education
- 7-8. Social Development
- 9-10. Agricultural/Rural Development
- 11-12. Peace-building
13. Wrap-up Session

\*More details will be provided during the first session on October 5.

### **Reference Materials:**

Relevant materials will be introduced in each class.

### **Evaluation:**

Class participation and weekly comment papers.

## Graduate School of Languages and Cultures (GSLC)

### **1. A Comparative History of Broadcasting**

Co-ordinator: KAWAMURA Masataka  
Class: Fridays, 14:45~16:15  
Place: Inter-departmental Education Bldg (School of Informatics & Sciences), <N>, Room 105

The dramatic development of broadcasting all over the world is one of the most significant trends of the history of the 20th century. But, if we examine the process of the development of the world's broadcasting separately, we will come to notice that there are not a few differences among the various regions of the world. In this course, by tracing mainly the history of the US and Japan, I would like to analyse the features of each society, as well as the characteristics of each country's broadcasting. In short, this class is about 'Broadcasting seen through society and history' and 'Society and history seen through broadcasting'.

## Courses in the Student's Major

### 2. Introduction to Sociolinguistics b

Co-ordinator: MORITA Chua Liang  
Class: Tuesdays, 10:30~12:00  
Place: IRB Humanities & Social Sciences, Room 522

We will be focusing on bilingualism this semester. Bilingualism or multilingualism is a frequently misunderstood phenomenon. Many parents are afraid of letting their young children learn English because they think it will interfere with their Japanese language development. Some worry that learning other languages means there will be less space in our brains for subjects such as science and mathematics. Thanks to research in bilingualism in recent decades, we now know that these worries are unfounded.

#### **Topics to be covered:**

1. Early Development of Bilingualism or Multilingualism
2. Later Development of Bilingualism
3. Language Shift (Especially in Hokkaido and Okinawa)
4. Language Situation of Ethnic Minorities (Especially Koreans and Brazilians)
5. Language Minority Schools in Japanese Public Schools
6. Bilingual Education in Japan

#### **Textbooks/References:**

Baker, C, S. (2006). *Foundations of Bilingual Education and Bilingualism*. Clevedon: Multilingual Matters.  
Noguchi, M.G. and Fotos, S (2001). *Studies in Japanese Bilingualism*. Clevedon: Multilingual Matters.

#### **Evaluation:**

Attendance, participation, preparedness for lessons and presentations.

Students are expected to complete the assigned reading before each lesson. In class, students are expected to engage in discussions based on what they have read. The instructor is more than happy to answer questions on the reading but since this is a graduate course, she hopes her students will come to class prepared and having reflected on what they read.

### 3. Introductory Studies in International Culture b: Map Appreciation

Co-ordinator: Simon POTTER  
Class: Thursdays, 13:00~14:30  
Place: Inter-departmental Education Bldg. (School of Informatics & Sciences), <N>, Room 107

“Map Appreciation” will investigate contemporary cartography as a craft that synthesises the arts and sciences. It aims to cover terrestrial and celestial maps, projections and scales, artistic elements, and various ways that maps are used by going through the following sequence of six topics: “Disciplines associated with cartography,” “cartographic vocabulary,” “uses of cartographic documents and artifacts,” “the science in cartography,” “the art in cartography,” and “types of maps.”

Maps and other cartographic materials are produced to show the location of selected places, and distance and direction are important components. Behind maps, though, are stories concerning selection, composition, and such like, and many maps provide cultural insights. It is hoped that after taking this course, students will be able to look at maps not only in a more critical light but also with a deep understanding of how complex they can be.

#### **Textbooks/Reference Materials:**

Daniel Dorling and David Fairbairn, *Mapping: Ways of Representing the World* (Harlow, Essex: Longman, 1997) [ISBN: 0-582-28972-6]

## Courses in the Student's Major

Mark Monmonier, *How to Lie with Maps* (Chicago: University of Chicago Press, 1996) [ISBN: 0-226-53421-9].

Other materials for reading or consultation will be made available according to the circumstances.

### **Evaluation:**

Approved cartographic project: 50%

Final examination on readings and class meetings: 50%

## **4. Outline of Japanese Culture Since the 16<sup>th</sup> Century**

Co-ordinator: MITO Hiroyuki

Class: Fridays, 13:00~14:45

Place: Inter-departmental Education Bldg (School of Informatics & Sciences), <N>, Room 105

This course's primary aim is to survey Japanese cultural history by considering European or Occidental artefacts, practices and ideas as original cultural components that have had a formative influence on Japanese culture. Simultaneously, we will investigate how to describe and explain Japanese culture in English.

This course will be divided in two parts: Lectures and participants' presentations. In the first several (7 or 8) classes the lecturer will mainly introduce some materials relating to the history of Japanese culture as suggestions or starting points for the participants' own investigations. Following the introductory lectures, in the latter half of the course, each participant or group of participants will make a presentation about a particular theme related to Japanese culture. Note that participants may make their presentations during the lecture classes if their themes correspond to the contents of the lectures.

### **Topics to be covered (tentative):**

1. Introduction: What does the word "culture" mean? What does it mean to research about Japanese Culture? What materials are available for this research?
2. The 16th century as the origin of modernity
3. Christianity in Japan before the Meiji Period
4. Tetsuro Watsuji (1889-1960) and his influence on later researchers
5. Revision of Japanese history: National isolation ("Sakoku") as a diplomatic policy
6. The Meiji Restoration
7. Introduction and adaptation of western things into Japanese society
8. Western fine arts in Japan: Realism and Japanese arts
9. The creation of cultural tradition: Continuity or disconnection?

### **Textbooks/References:**

Reading materials will be provided by the instructor.

TV Programmes for Reference:

NHK TV: "Trad Japan", E-tele, Thursdays, 23:00-23:20 (rebroadcast Mondays, 6:00-6:20); "Journeys in Japan", BS1, Wednesdays, 14:00-14:30; "Begin Japanology" BS1, Fridays, 14:00-14:30.

If participants so wish, short video clips may be presented during the classes as a break.

### **Evaluation:**

Class participation, presentation, a short paper about the presenter's own presentation, and a final research paper



School of Law

**1. Comparative Studies in Administrative Law: Modern Administrative Law**

Co-ordinator: ICHIHASHI Katsuya  
Class: Mondays, 10:30~12:00  
Place: IRB Humanities & Social Sciences, Room 407

In 1947 the Judicial Constitution Act and the Administrative Court Act were repealed. This marked a new beginning for the court system. It has been more than 50 years since then, in which time the system of judicial review of administrative action has developed. However, the contemporary raises many problems, which require urgent reform. I would like to reflect upon the merits and demerits of the court's role in administrative cases by means of reference to major Supreme Court's cases.

1. The Interpretation of Administrative Law;
2. Administrative Law and the Principle of Good Faith;
3. Legal Relations in Administrative Activity;
4. Administrative Legislation — Administrative Circulars;
5. Delegated Legislation;
6. Administrative Actions — Void Dispositions;
7. Administrative Discretion — Political Discretion;
8. Administrative Discretion — Special Expertise Discretion;
9. Retraction of Administrative Dispositions
10. Hearing Procedures:
  - Proceedings of Consultative Organs;
  - Constitution and Hearing;
  - Attachment of Reasons;
  - Administrative Guidance; and
  - Freedom of Information.

**2. Comparative Studies in Jurisprudence II: Uses of the Public Sphere – Good Practice vs. Corruption**

Co-ordinator: MORIGIWA Yasutomo  
Class: Fridays, 13:00~14:30  
Place: School of Law, Seminar Room 905

This class will provide a better understanding of the liberal democratic state by observing phenomena and theories of corruption in the context of the practicalities of (mainly) developing nations. Students will wrestle with such fundamental questions on law and the state as the following.

1. <violence>
  - 1) How can we protect the rights of the weak against threats of violence?
2. <power>
  - 1) What is the function of political power?
  - 2) What can keep political power from being abused?
3. <state>
  - 1) Is there a difference between the mafia and the state?
  - 2) If hostile military power is the greatest external threat to the state, what is the greatest domestic threat?
4. <justice>
  - 1) What is justice?
  - 2) What do you need to enforce your idea of justice?
5. <law>
  - 1) What is the difference between lawlessness and rule of law?
  - 2) What is law, and if it isn't law, what defines justice in a society?
6. <judiciary>

## Courses in the Student's Major

- 1) Why is the judiciary important in a liberal democracy?
7. <public/private>
  - 1) Can there be corruption in a state which does not distinguish between the public and the private?
  - 2) Why distinguish between the public and the private?
8. <citizenship>
  - 1) How can we get rid of bullying in the classroom?
  - 2) How can we really respect the equal right to be free?

The course will be divided into four parts:

- A. Part 1: The course will begin with a lecture on the fundamentals of political, moral and legal philosophy.
- B. Part 2: The class will then discuss the concept of corruption and see how corruption erodes and destroys the basis of a just society.
- C. Part 3: The class will discuss and analyse the reality of corruption as portrayed in country reports in terms of economic, political, moral and legal theory.  
To help better understand the concept of corruption and theories thereof, the students will prepare three essays:
  - 1) Assignment 1: What is “rent-seeking”?
  - 2) Assignment 2: Country report
- D. Part 4: The class will engage in acting out a scenario depicting a situation where corruption is almost inevitable, and feel what it like to be in such circumstances. This should make the learning experience not only theoretical but also visceral.
- E. Final essay: Students should gain enough understanding of the workings of the modern state and the devastating effects of corruption so that such questions as below would seem elementary:
  - 1) What is “rent-seeking” and how is it related to corruption?
  - 2) Why is an anti-corruption agency often a bad idea?
  - 3) Why is the “public/private” distinction important for understanding the liberal democratic state?
  - 4) Is the optimal state of affairs “no corruption” or should it be defined differently?
  - 5) Why is corruption so dangerous to the basic structure of a constitutional democracy?
  - 6) What would be the typical steps that should be taken to address corruption?

Providing concise replies in an essay to the above quiz comprise the final exercise for the course.

### **Evaluation:**

Attendance and participation:	25%
Essay on rent-seeking:	10%
Country report:	20%
Client session:	10%
Final essay:	35%

### **3. Comparative Studies in Political Thought: Political Theory in Modern Europe**

Co-ordinator:	ISOBE Takashi
Class:	Fridays, 14:45~16:15
Place:	School of Law, Seminar Room 905

With the aim of understanding European political culture as deeply as possible, we will read Voegelin's book and discuss the principal types of order of human existence in society and history as well as the corresponding symbolic forms.

### **Textbook:**

Eric Voegelin (1987). *In Search of Order*.

## Courses in the Student's Major

### 4. Comparative Studies in Politics II: Japanese Diplomacy & International Politics

Co-ordinator: SADAGATA Mamoru  
Class: Fridays, 10:30~12:00  
Place: School of Law, Seminar Room 905

This course is designed to help students understand the basics of both Japanese foreign policy and international relations theory. Each student is expected to make a presentation by applying theories to a topic of his/her interest.

1. Japanese Diplomacy after the Second World War
2. Japan-US Relationship and Japan's Security Policy
3. East Asian Regionalism and Japan
4. Japanese Foreign Policy in the Age of Globalisation
5. Characteristics of Japanese Diplomacy and Political Culture

#### Reference Materials:

To be distributed in class.

#### Evaluation:

Attendance and participation	50%
Presentation:	50%

### 5. Politics and Law in Japan

Co-ordinator: Frank BENNETT  
Class: Tuesdays, 13:00~14:30  
Place: IRB Humanities & Social Sciences, Room 409~410

This course is divided into two six-session parts, separated by a mid-term exam on Part I, and ending in a final examination covering both Part I and Part II of the course. The first half of the course introduces the institutions of the modern Japanese political system, and provides a survey of the forces and events that have shaped the modern political system. The second half of the course concerns the legal system, with attention to "private law" (the law of property and obligations), family law, and the criminal justice system. We will both examine the underpinnings of the common image of Japan as a society with a low level of disputing and litigation, and explore recent changes to the legal system that will be the source of change in the next generation.

**Prerequisites:** Class attendance is required.

#### Reference Materials:

J.A.A. Stockwin, *Governing Japan*, 3<sup>rd</sup> ed. (1999)  
G. Curtis, *The Logic of Japanese Politics* (1999)  
F. Upham, *Law and Social Change in Postwar Japan* (1987)

Other readings to be distributed.

#### Evaluation:

Class attendance, participation	20%
Mid-term examination	30%
Final Examination	50%

## Courses in the Student's Major

### 6. Professional Studies in International Human Rights Law II:

#### Seminar on Human Rights and Refugee Law

Co-ordinator: OBATA Kaoru  
Class: Thursdays, 13:00~14:30  
Place: School of Law, Seminar Room 905

**NB.** This class is open only to students majoring in law. Students interested in taking the course must make an appointment with the co-ordinator in advance.

In this seminar, we will select some topics related to current problems International Human Rights Law or Refugee Law, and read relevant textbooks and articles. In each class, a student will act as 'reporter', and make a presentation on the assigned subject matter. This will be followed by discussion amongst class members. Participants should have a basic knowledge of International Law in general and Human Rights Law, as provided in the courses on 'International Law' and International Human Rights Law'.

#### **Evaluation:**

Attendance: 30% (an attendance rate of 80% is mandatory)  
Class Discussion: 30%  
Presentation: 40%

### 7. Special Lecture & Seminar: Workshop on International Negotiation

Co-ordinator: Frank BENNETT  
Class: Wednesdays, 8:45~10:15  
Place: IRB Humanities & Social Sciences, Rooms 409~410

This course provides an opportunity to study and to practice negotiation skills in an international context. Sessions will involve lectures, practical sessions, and discussions based on both. Topics to be covered may include:

1. The purpose of negotiation and the value of "negotiation skills"
2. The result of negotiation: Agreements and their forms
3. Zero-sum versus win-win bargains
4. Negotiation psychology and cross-cultural communication
5. Identifying and controlling risk
6. Positions versus interests
7. Option building and the importance of listening
8. Hard bargaining

Course content is of course open to negotiation.

#### **Reference Materials:**

Fisher, Ury & Patton, *Getting to Yes: negotiating agreement without giving in* (2<sup>nd</sup> ed. 1991)  
(negotiation and arbitration problems to be distributed)

#### **Evaluation:**

Statement of objectives: 10%  
Class attendance & participation: 40%  
Final report: 50%

## Courses in the Student's Major

### 8. Special Lecture & Seminar: *Yomiuri Shimbun* Special Lecture – Comparative Asian Corporate Theory

Instructors: Journalists from the *Yomiuri Shimbun*'s Tokyo Office  
Class: Wednesdays, 14:45~16:15 (~18:00)  
Place: School of Law, Room 905

Journalists from the Tokyo Office of the *Yomiuri Shimbun* will conduct this course, based on their on-the-spot news coverage around the world and teaching experience in California. A series of topics related to Japan and other Asian countries will be included in this course.

#### **Topics to be covered:**

第1回 10月12日 読売新聞と海外報道/坂本 隆(国際部長)

#### **1. October 12, *Yomiuri* and foreign news coverage**

Instructor: Takahashi Sakamoto, International News Editor

As the leading newspaper in Japan, the *Yomiuri Shimbun* has been reporting international news extensively with 49 overseas correspondents. We will look into how Japanese media like *Yomiuri* cover foreign news, and also compare Japanese foreign news coverage with that of the rest of the world.

Mr. Sakamoto was New Delhi Bureau Chief from 1990 to 1993 and Washington correspondent from 1995 to 2001, and from 2005 to 2008.

第2回 10月19日 アジアの米軍態勢見直し/小川 聡(政治部記者)

#### **2. October 19, US force posture in the West Pacific**

Instructor: Satoshi Ogawa, political correspondent

The US forces are trying to adjust their posture in response to recent evolutions of Chinese military modernisation in the West Pacific. How will this affect the US forces in Japan and the transformation agreement of the US forces in Okinawa? We will discuss this with firsthand information from a correspondent who has covered both Japan and US security agencies.

第3回 10月26日 一つの言葉で対話するアジア/高須賀茂文(英字新聞部次長)

#### **3. October 26, English as a common language among newspapers in Asia**

Instructor: Shigefumi Takasuka, assistant editor of The Daily *Yomiuri*

Until recently, newspapers in Asian countries did not exchange their articles, editorials and commentaries among themselves on a regular basis. However, the advent of the Internet age and use of English as a common language have made this possible. This development is symbolised by the establishment in 1999 of the Asia News Network, an alliance of 21 newspapers in 18 countries including The *Yomiuri Shimbun* and The Daily *Yomiuri* in Japan. ANN member newspapers not only exchange articles among themselves but also operate their own news site and publish a weekly magazine with articles that they contribute to its Bangkok headquarters.

Mr. Takasuka, former *Yomiuri Shimbun* correspondent in Bangkok, will discuss this unique challenge to the world of international journalism that had been long dominated by Western media.

第4回 11月2日 日本の留学生政策/南 砂(編集委員)

#### **4. November 2, Japan's Foreign Student Policy**

Instructor: Masago Minami, deputy editor of Commentary and News Analysis Department

It was in 1983, with only 8,000 foreign students studying in Japan at the time, when the Japanese Government set a goal to accept 100,000 overseas students by the early 21<sup>st</sup> century. The goal was finally attained in 2002, but a number of problems had appeared in the meantime. We will review and discuss the areas in which the Japanese have achieved and failed vis-à-vis foreign student policy in terms of a long-term perspective.

Ms Minami is a medical doctor specialising in psychiatry

第5回 11月9日 日本とファッション/宮智 泉(編集委員)

#### **5. November 9, Japan and Fashion**

Instructor: Izumi Miyachi, Senior Writer, *Yomiuri Shimbun*

## Courses in the Student's Major

Japanese fashion attracts designers and the young generation from all over the world through its creative style. How did it develop? Can it be a soft power for Japan? What kind of influence does it have on Asian countries? Ms. Miyachi will provide an introduction to Japanese fashion and the power of consumers that made it unique.

Ms. Miyachi has long been a staff writer of the lifestyle & culture section and was a visiting lecturer at the Graduate School of Journalism, UC Berkeley.

第6回、7回 11月16日(14:45~18:00) 日本の安全 アジアの安全/ 笹島雅彦(調査研究本部主任研究員)

### **6. & 7. November 16 (14:45~18:00), Security in Asia and Japan**

Instructor: Masahiko Sasajima, Senior Research Fellow, Yomiuri Research Institute

Mr. Sasajima will provide an introduction, from the perspective of both policy analysis and journalism, to the structure of political and military affairs in Asia as well as a comparison of the national security policies of major nations of the region. Particular attention is given to the continuation of the Maritime Self-Defence Force's refuelling mission in the Indian Ocean.

Mr. Sasajima is a former correspondent of the Beijing Bureau and visiting lecturer at J-School, UC Berkeley.

第8回 11月30日 アジアの宇宙時代/ 滝田恭子(科学部主任)

### **8. November 30, Space Race in Asia**

Instructor: Kyoko Takita, Science News Reporter

China and India are emerging as space superpowers with new rockets, manned spaceflights and lunar explorations. They may change the old scheme of space activities led by US and Russia in co-operation with Japan, EU and Canada. We will discuss the impact of the space race on world politics and the utilisation of resources in space and moon.

Ms. Takita covers space shuttle flights, rockets and satellites development, and science and technology policies.

第9回、10回 12月7日(14:45~18:00) 歴史問題とアジア/ 鬼頭 誠(調査研究本部主任研究員)

### **9. & 10. December 7 (14:45~18:00), Historical Issues and Asia – War Responsibility of the Japanese**

Instructor: Makoto Kito, Senior Research Fellow, Yomiuri Research Institute

In 2006, the Yomiuri Shimbun occasionally published features in morning editions on the war responsibility of the Japanese leadership in World War II. Why did Japan expand the Sino-Japanese War? Why did she wage war with the U.S. in spite of extremely slim resources? What caused the Japanese to employ “banzai attacks”, or “kamikaze” suicide attacks? Wasn't it possible to prevent the atomic bombings of Hiroshima and Nagasaki? Let's re-examine and try to identify the responsibility of the war leaders' failures, while finding lessons to be learned.

Mr. Kito worked as a member of the Yomiuri Shimbun War Responsibility Re-examination Committee. The translated compilation of the features was published both in English in 2006 and in Chinese in 2007.

第11回 12月14日 フクシマと原子力の未来/ 大塚隆一(編集委員)

### **11. December 14, Fukushima and the Future of Nuclear Energy**

Instructor: Ryuichi Otsuka, senior writer

The Fukushima Daiichi incident, following the catastrophic earthquake and tsunami, has raised new questions about the safety of nuclear power. Does nuclear energy offer a path away from carbon-based fuels? Or are nuclear power plants too big a threat? We will discuss the merits and demerits of nuclear energy and its future.

Mr. Otsuka worked as a correspondent in Geneva, New York and Washington DC.

第12回、13回 12月21日(14:45~18:00) 世界のスポーツとアジア/ 結城和香子(運動部次長)

### **12. & 13. December 21 (14:45~18:00), The Olympic Games and Asia**

Instructor: Wakako Yuki, vice sports editor (Former Sydney and Athens bureau chief in charge of the Yomiuri Shimbun's Olympic Games coverage.)

In 2008, Asia hosted the first Summer Olympic Games in 20 years. The Beijing Olympic Games was an

## Courses in the Student's Major

opportunity for us to ponder and discuss what the positives and the negatives of the modern Olympic Games, a private sports movement which has miraculously lasted for over 100 years, actually are. Are the Olympic Games a legacy of humanity which should be carried on into the future? Or have its negative aspects caught up at last?

Taking into considerations aspects such as;

Positives

- Olympic Games can create initiatives for peace
- Olympic Games have considerable economic impact
- can inspire us to go beyond our limitation, value of life
- demonstrate passion for sports
- opportunity to overcome discrimination

Negatives

- too much pressure to win spur doping problem
- became too expensive and gigantic, riches' games
- bidding race is susceptible to corruptions
- sports have become a mere entertaining show
- can be used as political propaganda or tools

We will try to ascertain why we do or don't need the Olympic Games.

第14回 1月11日 中国とメディア/吉田健一(国際部記者)

### 14. January 11, China and the Media

Instructor: Kenichi Yoshida, Staff Writer of the International News Department

In China, the local media is under strict control of the Communist Party which is eager to maintain its authoritarian political system. At the same time, the correspondents of the foreign media face a miscellany of difficulties when they try to cover China.

第15回 1月18日 新聞社のメディア戦略/松井 正(メディア戦略局IT事業部次長)

### 15. January 18, Online Media: A Disruptive Technology

Instructor: Tadashi Matsui, Deputy Manager, Department of Research & Development Operations, Digital Media Bureau

The Internet and mobile media have had a clearly disruptive effect on the newspaper industry. Keeping in mind the unique characteristics of the Japanese newspaper business, we will examine how newspapers can reach the younger generation and find the means to survive.

Mr. Matsui is a former visiting researcher at the Newspaper Association of America. He is a video journalist, web director, and a former staff writer with The Yomiuri Shimbun's Science Department.

### **Evaluation:**

Participation and the submission of a report at the end of the course.

## 9. Studies in Jurisprudence: Law as Political Theory II

Co-ordinator: MORIGIWA Yasutomo

Class: Mondays, 16:30~18:00 (class held every two weeks)

Place: IRB, Humanities & Soc. Sciences, Room 411

This bi-weekly course, with one credit given for each semester, introduces the student to the world of legal and political theory. Theories to be discussed include that of Hobbes, Locke, Rousseau, Kant, and Hegel, as well as those developed by Hart, Dworkin, Raz and Rawls. Selected theories will be examined and explained, answering the burning questions any conscientious student would have on political power and public order. The course will be taught in English, with summaries in Japanese as necessary. International and Japanese students are welcome. The class time and venue will be decided at the first class meeting on Monday, 3 Oct 2011, 5<sup>th</sup> period at IRB room 411.

School of Letters

**1. Japanese/Asian Cinema History**

Co-ordinator: FUJIKI Hideaki (hfuji@lit.nagoya-u.ac.jp)  
Class: Wednesdays, 16:30~18:00  
Place: Communal Building for Humanities and Social Sciences, Room 2B

Our primary purpose is to conduct a critical examination of modern Japanese and East Asian culture and society through the analysis of films and their historical contexts.

Cinema always involves multiple socio-historical dimensions, related to politics, economics, technology, aesthetics, culture, and everyday life. It follows that examining cinema helps us to understand the complex relationships among these dimensions. This class provides students with an opportunity to analyse films related to such historical issues as Japanese imperialism, nationalism, post colonialism, social protests, and the American occupation. A more detailed syllabus will be provided in the first class.

**Evaluation:**

Attendance	10%
Contribution to Class Discussion:	20%
Term Paper	70%

**2. Japanese Culture: Language and Communication II**

Co-ordinator: YASUI Eiko (eyasui@lit.nagoya-u.ac.jp)  
Class: Tuesdays, 13:00~14:30  
Place: IRB Humanities & Social Sciences, Room 307

Language as a communicative tool has a close relationship with the culture in which it is used. This course on Japanese communication aims to provide students with an interdisciplinary overview of how Japanese language structure and culture form the ways Japanese people communicate. We not only discuss intercultural/interlingua differences in communicative styles, but also observe the diversity within Japanese culture.

**Topics to be covered:**

1. Introduction to communication
2. Culture and language
  - Cultural relativism
  - Linguistic relativity
3. Culture and language use
  - Politeness
  - Role of context
  - Joke and irony
4. Culture, language, and communication
  - Conversational structures
  - Role of grammatical structures in conversation
  - Recipients' behaviour
5. Issues in intercultural communication
6. Diversity within Japanese

**Reference Materials:**

Handouts

**Evaluation:**

Participation/attendance:	30%
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## Courses in the Student's Major

Final project (presentation and paper) 70%

### 3. 日本語文化入門 II (Introduction to Japanese Language & Culture II)

Co-ordinator: SAITO Fumitoshi  
Class: Tuesdays, 16:30~18:00  
Place: School of Letters, Lecture Room 237

**NB.** Course taught in Japanese and which requires at least level N2 (or 2) of the Japanese Language Proficiency Test (JLPT) or equivalent.

この講義は、日本語文化に対する理解を深めることを目的とする。特に、語彙(単語)に焦点が当てられる。また、講義、クラス討論、レポート、グループ発表の様々な形式をとる。

#### Topics to be covered:

1. 「昨日頭を切ってきたよ」「昨日頭をカットしてきたよ」は言えるのに、「昨日頭を切断してきたよ」だとぶきみになってしまうのはなぜ？
2. 「今日は11月3日、祝日でちょうど日曜日にあたります」の中の5個の「日」、なんでみんな読み方が違うの？
3. 「見上げてごらん、星がキラキラまたたいているよ」はなぜロマンチックじゃないの？
4. 「ホーカにケッタマシンで郵便局行ったら、どえりゃあ疲れてまった」ってどんな意味？

#### Reference Materials:

必要に応じてプリントを配布。

#### Evaluation:

出席: 30%  
授業への貢献度: 30%  
レポート: 40%

## Graduate School of Mathematics

### Perspectives in Mathematical Sciences II (Graduate)/IV (Undergraduate)

Co-ordinators: Lars HESSELHOLT, SHOJI Toshiaki, HASHIMOTO Mitsuyasu  
Class: Tuesdays, 13:00~14:30  
Place: School of Science Building 1 <Mathematics>, Room 109

This course is designed as one of the English courses which the Graduate School of Mathematics provides for the graduate and undergraduate students not only from foreign countries but also domestic students who have a strong intention to study abroad or to communicate with foreign scientists in English. All course activities including lectures, homework assignments, questions and consultations are conducted in English. The purpose of this course is to introduce and explain various methods in mathematical science.

**Prerequisites:** Knowledge of standard undergraduate algebra and linear algebra. It is preferable to have some knowledge of tensor product, multilinear algebra, and basic homological algebra, including extension groups.

#### Tentative Course Schedule:

Oct 4~Nov 1: Hesselholt  
Nov 8~Nov 29; Dec 13: Shoji  
Dec 6; Dec 20~Jan 24: Hashimoto

### **Topics to be covered:**

#### **A. Lars HESSELHOLT: Scissors Congruence and Hilbert's Third Problem**

It has been known since ancient times that two polygons that have the same area can be divided into a finitely many pair wise congruent triangles. Hilbert, in his third problem at the ICM 1900, asked whether two polyhedra that have the same volume can be divided into finitely many pair wise congruent tetrahedra. Dehn proved within the same year that the answer is no: A cube and a tetrahedron of equal volume cannot be divided into finitely many pair wise congruent tetrahedra. Two polyhedra are called scissors congruent if they can be divided into finitely many pair wise congruent tetrahedra. The question of how to parameterise the set of polyhedra up to scissors congruence turns out to involve much of the modern mathematics developed in the twentieth century. We will discuss the solution to this question along with the modern mathematical structures involved.

#### **Reference Materials:**

[1] Johan L. Dupont, *Scissors congruence, group homology and characteristic classes*, Nankai Tracts in Mathematics, Vol. 1, World Scientific.

#### **B. SHOJI Toshiaki: Combinatorics of Symmetric Groups and Schubert Polynomials**

Important varieties such as the flag variety and the Grassmannian variety have a close relationship with the combinatorics of symmetric groups. The flag variety is divided into a finitely many cells through the Bruhat decomposition. The Schubert variety is defined as the closure of such a cell, and the corresponding class in the cohomology ring of the flag variety is called the Schubert class. The geometric theory concerning Schubert class is now famous as the Schubert calculus, which originates to H. Schubert in 19<sup>th</sup> century. He solved many enumeration problems occurring from the geometric setting. By the way, the Schubert calculus has a purely algebraic and combinatorial counter part. Schubert polynomials are the object in the combinatorial side corresponding to Schubert classes in the geometric side.

In this lecture, I will explain about the combinatorial theory of Schubert polynomials, and their relationship with the geometric theory of flag varieties and Grassmannian varieties.

#### **Reference Materials:**

[1] W. Fulton, *Young Tableaux*, London Math. Society, Student Texts 35, Cambridge University Press.  
[2] H. Hiller, *Geometry of Coxeter Groups*, Research Notes in Mathematics, 54, Pitman Advanced Publishing Program.

#### **C. HASHIMOTO Mitsuyasu: Schur Algebras**

Schur algebra was used by I. Schur in order to study polynomial representations of  $GL_n$  of fixed degree. The first purpose of this lecture is to establish the equivalence between the category of polynomial representations of  $GL_n$  of degree  $r$  and the module category of the Schur algebra  $S(n, r)$ . We will work over an (algebraically closed) field of arbitrary characteristic, and enjoy the modular phenomena. We will also study the highest weight theory over quasi-hereditary algebras through this important example - the Schur algebra. In particular, we will study good filtrations and tilting modules. We will also study some basic facts on the characteristic zero case, including the complete reducibility.

The lecture plan is as follows:

1. Polynomial representations of  $GL_n$  and the Schur algebra
2. Schur algebra as a quasi-hereditary algebra
3. Good filtrations and tilting modules
4. Symmetric group and the characteristic zero case

#### **Reference Materials:**

[1] The module theoretical approach to quasi-hereditary algebras, in H. Tachikawa and S. Brenner (eds.), *Representations of algebras and related topics*, Cambridge (1992), 200-224.  
[2] J. A. Green, *Polynomial representations of  $GL_n$* , Springer (1980).  
[3] S. Martin, *Schur algebras and representation theory*, Cambridge (1993).

## Courses in the Student's Major

[4] C. M. Ringel, *The category of modules with good filtrations over a quasi-hereditary algebra has almost split sequences*, Math. Z. 208 (1991), 209{223.

### **Evaluation:**

Attendance and report problems, as assigned by each instructor. The final grade will be decided according to the totality of the scores

## School of Science

### **1. Advanced Quantum Chemistry**

Co-ordinator: Stephan IRLE  
Class: Wednesdays, 10:30~12:00  
Place: School of Science Building B, Lecture Room 3 <B-116>

**Prerequisites:** Basic knowledge of quantum chemistry and some familiarity with electronic-structure theory and/or molecular dynamics techniques.

In complex reaction systems at high temperatures, following the minimum energy pathways on the potential energy surface is not only impossible, but will entirely neglect important entropic effects during the reactions. Quantum chemical molecular dynamics (QM/MD) simulations have recently elucidated the formation as well as erosion mechanisms of nanomaterials such as fullerenes, carbon nanotubes, and graphenes. In this class, all theoretical concepts important for QM/MD simulations will be covered.

### **Topics to be covered:**

1. Born-Oppenheimer approximation and potential energy surfaces (PESs)
2. Location and characterisation of stationary states on the PES
3. Comparison: Molecular mechanics and quantum chemical methods
4. LCAO-MO theory; Hartree-Fock theory
5. Basis sets in quantum chemical calculations
6. The electron correlation problem: Static and dynamic electron correlation (CASSCF, and CI and MP2 methods)
7. Density-based methods: Kohn-Sham theory, density functional theory (DFT)
8. Density-Functional Tight-Binding
9. QM/MD simulations: BOMD, CPMD, L $\nu$ NMD
10. Steered MD, umbrella-sampling, and transition path sampling methods
11. Strengths and weaknesses of MD simulations for the understanding of complex problems

### **Textbook:**

Self-made scriptum

### **Reference Materials:**

Thomas Engel, *Quantum Chemistry & Spectroscopy, 2nd Edition*, Prentice Hall

M. P. Allen, D. J. Tildesley (1989), *Computer Simulation of Liquids*, Oxford University Press (ISBN 0-19-855645-4)

A self-prepared script

### **Evaluation:**

Final Examination: 40%  
Six Assignments: 10% each

## Courses in the Student's Major

### 2. Computational Chemistry

Co-ordinator: Stephan IRLE  
Class: Thursdays, 8:45~10:15 (This class will commence on October 20)  
Place: School of Science Building A, Room 250

“How can I use computers in chemistry?” The purpose of this course is to introduce computer science from a chemist's perspective. The course begins with an introduction to the basic use of computers for data search, and introduces FORTRAN 90 as a way to solve simple scientific problems in an efficient way.

**NB.** As students will use computers during class time, it is imperative that they bring their student ID cards, computer system IDs and passwords.

#### **Topics to be covered:**

1. Using the computer: Searching for information
2. Constructing and viewing 3-dimensional models of molecules: GaussView, MOLGEN programs
3. Overview over commercial molecular modeling packages
4. Introduction to FORTRAN 90: Compilers, etc.
5. Data Types, Constants, and Variables
6. If, else if, case expressions
7. Do loops
8. Formatted input
9. Formatted/Unformatted output
10. Subprograms
11. Application: Data processing
12. Bohr atom model

#### **Textbook:**

Self-made scriptum

Larry Nyhoff, Sanford Leestma: *Introduction to FORTRAN 90*

Thomas Heine: *Computer Chemistry Workbook*, VCH, Weinheim.



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