

# Course Calendar

2012.....2013



## One-year Exchange Program

• *Short-Term Exchange  
Program in  
Science and Engineering  
at  
Tokyo University of  
Agriculture and Technology  
STEP@TUAT*

• *Short-Term Program  
for  
Researching  
at  
Tokyo University of  
Agriculture and Technology  
SPRING@TUAT*

*International Center  
Tokyo University of Agriculture and Technology*

## ***STEP@TUAT & SPRING@TUAT***

*Short-Term Exchange Program in Science and Engineering (STEP@TUAT).*

*STEP Course is for undergraduate and graduate students who want to **take classes**.*

*Short-Term Program for Researching (SPRING@TUAT)*

*SPRING Course is for graduate students who want to **do research** at TUAT.*

# Contents

<b>STEP@TUAT Program Guide</b> ( <i>Students who want to take classes</i> ).....	<b>1</b>
(1) <i>Objectives</i> .....	<b>1</b>
(2) <i>Outline</i> .....	<b>1</b>
(3) <i>Academic Calendar (2012-2013)</i> .....	<b>1</b>
(4) <i>Admission Requirements</i> .....	<b>1</b>
(5) <i>Student Status at STEP@TUAT(2 Categories)</i> .....	<b>2</b>
(5-1) <i>Admission Process for Special Auditing Undergraduate Student (Category U)</i> .....	<b>2</b>
(5-2) <i>Admission Process for Special Auditing Graduate Student (Category G1)</i> .....	<b>3</b>
(6) <i>Academic Program</i> .....	<b>3</b>
(7) <i>Credits Requirements</i> .....	<b>3</b>
(8) <i>Credits Transfer</i> .....	<b>4</b>
(9) <i>Immigration Procedures</i> .....	<b>4</b>
(10) <i>Health Insurance</i> .....	<b>4</b>
(11) <i>Accommodation</i> .....	<b>4</b>
(12) <i>Mailing Address for Application</i> .....	<b>4</b>
(13) <i>Web Site</i> .....	<b>5</b>
(14) <i>Closing Date</i> .....	<b>5</b>
• <b>JASSO Scholarship</b> .....	<b>6</b>
(1) <i>Requirements</i> .....	<b>6</b>
(2) <i>Financial Aid by JASSO Scholarship</i> .....	<b>7</b>
(3) <i>Application Method and Closing Date</i> .....	<b>7</b>
(4) <i>Prohibition</i> .....	<b>7</b>
• <b>List of Courses</b> .....	<b>8</b>
• <b>Course Description</b> .....	<b>9</b>
<i>Japanese Language Course</i> .....	<b>9</b>
<i>Japanese Studies Course</i> .....	<b>9</b>
<i>Science and Technology Course 1</i> .....	<b>10</b>
<i>Science and Technology Course 2</i> .....	<b>11</b>
• <b>STEP@TUAT / SPRING@TUAT FAQ</b> .....	<b>12</b>
1. <i>Application</i> .....	<b>12</b>
2. <i>Selection</i> .....	<b>12</b>
3. <i>Expenses</i> .....	<b>12</b>
4. <i>Results</i> .....	<b>13</b>
5. <i>JASSO Scholarship</i> .....	<b>13</b>
6. <i>Others</i> .....	<b>15</b>

# **Short-Term Exchange Program in Science and Engineering@TUAT**

## **Program Guide**

*(For undergraduate and graduate students who want to take classes)*

### **(1) Objectives**

- (1) To provide international students with opportunities for education and research regarding the latest industry and technology in Japan.
- (2) To contribute to the development of science and technology through cooperative research and work with international students.
- (3) To promote the globalization of TUAT by fostering the relationship between TUAT students and international students.
- (4) To give a better understanding of Japan to international students, and turn out competent individuals familiar with Japan so that they can work in international fields.

### **(2) Outline**

- (1) The program starts in October.
- (2) The courses are offered in English.
- (3) Credits are awarded in the courses.
- (4) The number of students enrolled is about 20.

### **(3) Academic Calendar (2012-2013)**

Fall Semester	October 1, 2012 - March 31, 2013
Spring Semester	April 1, 2013- September 30, 2013

### **(4) Admission Requirements**

- (1) Applicants must be enrolled in regular undergraduate (3<sup>rd</sup> or 4<sup>th</sup> year) or master program (G1) at overseas institutions which have concluded an academic exchange agreement or the student exchange agreement with TUAT as of **Oct. 1, 2012**. Doctor Program students can not be accepted.
- (2) Applicants must be enrolled in regular undergraduate (U) or master program (G1) at their home institutions as of **Sept. 30, 2013**.

- (3) A basic knowledge of Japanese language is not an essential requirement for the STEP@TUAT students. Applicants must, however, be proficient in English. Non-native speakers of English should submit the results of TOEFL or other equivalent documents.

### **(5) Student Status at STEP@TUAT (2 Categories)**

Status	Category	Present Status in the home institution as of Oct. 1, 2012
Special Auditing Undergraduate Student	U	Undergraduate (3 <sup>rd</sup> or 4 <sup>th</sup> )
Special Auditing Graduate Student (mainly taking lectures)	G1	Master Program

#### **(5-1) Admission Process for Special Auditing Undergraduate Student (Category U)**

Students interested in STEP@TUAT should contact the International Exchange Office of your home institution for information about STEP@TUAT. You need to go through the selection process for students from your institution, established by the academic exchange agreement.

The following documents are necessary for application:

- (1) Completed STEP@TUAT Application for Admission for Special Auditing Undergraduate Student.
- (2) Completed Certificate of Enrollment for TUAT issued from the Home Institution.
- (3) Transcript of Academic Record.
- (4) Explanation for Grade System of (3) with an authorized signature.
- (5) Two recommendation letters written by the faculty members of the home institution. The letters should be written in either Japanese or English.
- (6) Completed Health Certificate (in English).
- (7) Result of TOEFL or other equivalent documents (for nonnative speakers of English).
- (8) Copies of Passport and ID (Students who have a passport must attach the copy to the application).
- (9) If you want to apply for the JASSO Scholarship, completed application form for the JASSO (Form 3-3) “Certificate of Enrollment of the Applicant for Student Exchange Support Program (Scholarship for Short-Term Study in Japan).”

## **(5-2) Admission Process for Special Auditing Graduate Student (Category G1)**

Same as the admission process for Special Auditing Undergraduate Student.

### **Note:**

**Applications for STEP@TUAT 2012-2013 should reach Tokyo University of Agriculture and Technology in a complete package containing all the above documents by March 2, 2012.**

We request the applicants to refrain from applying for the JASSO scholarships concurrently with other Japanese universities.

TUAT will select the students to be admitted to STEP@TUAT from among the applicants, and will notify the applicants and their home institutions of the results.

## **(6) Academic Program**

Japanese Language Course, Japanese Studies Course, and Science and Technology Course

### **Note:**

Under the direction of the program coordinator, students can choose classes in their major from established courses in Japanese, depending on their qualifications. A full list of such courses is included under the title of Regular Courses of TUAT.

## **(7) Credits Requirements**

All the courses offered in STEP@TUAT are elective. Students will select and register for the courses of their choice at the beginning of each semester.

### **The Minimum Requirements for 2 Semesters**

Student Status and Category	Japanese Language Course	Japanese Studies Course + Science and Technology Course 1	Science and Technology Course 2	Total
Special Auditing Undergraduate Student (Category U)	6	18	N.A.	24
Special Auditing Graduate Student (Category G1)	6	14 ("Independent Study" Compulsory)	4	24

We will give those students who have completed two semesters of STEP@TUAT a certificate of completion. For a student among special auditing students specified in TUAT rules and regulations, who registered for the first semester but was judged that there is no possibility of completing the second semester as the result of credit authorization, in principle Director of International Center shall cancel his/her studentship at TUAT through a decision by its steering committee, with the consent of the sending institution concluding an agreement between the institutions or between the departments of the institutions.

### **(8) Credits Transfer**

TUAT will allow students to transfer up to 30 credits to their respective institutions but the final decision in this regard will depend on the respective institutions.

### **(9) Immigration Procedures**

Before coming to Japan, prospective students will need to obtain a “College Student” (Ryugaku) visa issued by the Japanese Embassy or Consulate in their country of residence.

We will send a certificate or a letter of acceptance to students who are officially accepted to STEP@TUAT. Concurrently TUAT will request Japanese Immigration Bureau to issue a Certificate of Eligibility for Status of Residence (CESR) for each student. CESR will serve as a proof of student status when the student applies for the visa which is a requisite for entering Japan as a student. The process of obtaining CESR takes time and the certificate usually does not come until the last moment. Applicants should follow the advice of the Japanese diplomatic office in their home country concerning the procedure for obtaining the visa.

### **(10) Health Insurance**

STEP@TUAT students must join a comprehensive health and personal accident insurance plans arranged by the university, the National Health Insurance, Disaster and Accident Insurance for Students Pursuing Education and Research, **Personal Liability Insurance for Students and Membership of University Student Union.**

### **(11) Accommodation**

There are two International Student Houses on campus for the student herself or himself. We also have a home stay program for international students.

### **(12) Mailing Address for Application**

All STEP@TUAT application materials should be sent to:  
STEP@TUAT Coordinators' Office, International Center  
Tokyo University of Agriculture and Technology  
2-24-16 Naka-cho, Koganei, Tokyo 184-8588, Japan

**Note:**

**Only the documents of the application mentioned above sent by post are acceptable. In other words, we cannot accept the application sent by e-mail as attachment.**

FAX: +81-42-388-7775

E-mail: [steptuat@cc.tuat.ac.jp](mailto:steptuat@cc.tuat.ac.jp)

**(13) Web Site**

Information regarding TUAT may be found on our web site:

**<http://www.tuat.ac.jp/~step/>**

**(14) Closing Date**

**Your application package should reach the coordinator of STEP@TUAT by Friday, March 2, 2012.**

**Appendix:**

If an action by a student among the Short-Term Exchange Program students is admitted to be against public order and standards of decency, the student shall be disciplined.

# **JASSO Scholarship**

Each year the Japan Student Services Organization (JASSO) offers scholarship to the students of the Student Exchange Support Program (Scholarship for Short-Term Study in Japan) for which STEP applicants are encouraged to apply. The program is intended to promote student exchange between universities in Japan and their overseas partner institutions, thereby mutually enhancing the quality of their educational and scholastic activities while promoting understanding and friendship between the countries participating.

## **(1) Requirements**

The scholarship is open to students who are enrolled in regular courses of study at institutions of higher education outside of Japan until the end of STEP@TUAT, and who meet the following conditions:

- (1) Students must be enrolled at the institutions having concluded an academic / student exchange agreement with TUAT.
- (2) Students must possess the nationality of the country established diplomatic relations with Japan.
- (3) Students should not have Japanese Nationality.
- (4) Students must achieve **2.30** grade points or over in JASSO Grade Calculating System. (Refer to the calculating formula below)
- (5) Students must demonstrate that they will benefit from studying in Japan, and are required to produce a clear study plan with regard to their studies at TUAT.
- (6) Students must, for reasons of financial difficulty, be unable to finance their studies in Japan independently.
- (7) Students must, upon completion of the term of exchange, return to their home institutions to resume their studies or to be awarded their degrees.
- (8) Students must not have previously been recipients of this scholarship.

## **JASSO Grade Calculating System**

### Point Values per Grade Scale

(Rounded off to three decimals places)

Scale	Grade				
	—	Excellent	Good	Average	Fail
4-grade scale (Pattern 1)	—	Excellent	Good	Average	Fail
4-grade scale (Pattern 2)	—	A	B	C	F
4-grade scale (Pattern 3)	—	100~80	79~70	69~60	59~0
5-grade scale (Pattern 4)	100~90	89~80	79~70	69~60	59~0
5-grade scale (Pattern 5)	S	A	B	C	F
5-grade scale (Pattern 6)	A	B	C	D	F
Point value	3	3	2	1	0

## Calculating Formula

$$\frac{\text{Total Grade Points: } (a \times 3) + (b \times 2) + (c \times 1) + (d \times 0)}{\text{Total number of credits } (a + b + c + d)}$$

(Maximum grade points are 3.00.)

- a: Number of credits of point value 3    b: Number of credits of point value 2  
c: Number of credits of point value 1    d: Number of credits of point value 0  
\*To get total grade points, multiply each point value by its number of credits

## (2) Financial Aid by JASSO Scholarship

Monthly Stipend (JASSO)	80,000 JPY*
Travel Expenses (JASSO)	Not provided
Relocation Allowance (JASSO)	Not provided
Tuition	Waived for students from the institutions which have concluded a mutual tuition waiver contract with TUAT.

- \* The amount is subject to change by the Budget **2012** of the Japanese Government.

## (3) Application Method and Closing Date

Students wishing to apply for a JASSO scholarship award must submit both JASSO and STEP@**2012-2013** application forms to TUAT through their home institutions by **Friday, March 2, 2012.**

## (4) Prohibition

It is not allowed to apply to more than one institution for JASSO Scholarship admission at the same time. It is also not allowed to apply to Monbukagakusho Scholarship (Japanese Government Scholarship) at the same time.



## List of Courses

Course	Semester	Credits for Undergraduate (U) Students	Credits for Graduate (G1) Students	
Japanese Language Course	Elementary Japanese I	Fall	3	3
	Intermediate Japanese I	Fall	3	3
	Advanced Japanese I	Fall	2	2
	Elementary Japanese II	Spring	3	3
	Intermediate Japanese II	Spring	3	3
	Advanced Japanese II	Spring	2	2
	Elementary Japanese I-S*	Fall	2	2
	Intermediate Japanese I-S*	Fall	2	2
	Advanced Japanese I-S*	Fall	2	2
	Elementary Japanese II-S*	Spring	2	2
	Intermediate Japanese II-S*	Spring	2	2
	Advanced Japanese II-S*	Spring	2	2
Japanese Studies Course	Intercultural Communication	Spring	2	2
	Japanese History	Fall	2	2
	Japanese Culture	Fall	2	2
	Language and Society	Spring	2	2
	STEP Special Program I	Fall	1 or 2	1 or 2
	STEP Special Program II	Spring	1 or 2	1 or 2
Science and Technology Course 1	Fundamental Agricultural Science	Fall	2	2
	Fundamental Physics and Mathematics for Engineering	Fall	2	2
	Japanese Science and Technology	Fall	2	2
	International Cooperation of Science and Technology	Fall	2	2
	General Topics of Japanese Industry	Spring	2	2
	Environmental Science and Technology	Spring	2	2
	Practical Training: Farm A	Fall	1	1
	Practical Training: Farm B	Spring	1	1
	Practical Training: Instrumentation Analysis Center	Fall	1	1
	Independent Study***	Spring	2	2
Science and Technology Course 2	International Environmental Rehabilitation and Conservation**	Fall	N.A.	2
	International Biological Production and Resource Science**	Spring	N.A.	2
	International Development on Rural Areas**	Fall	N.A.	2
	Advances in Mechanical Systems Engineering**	Spring	N.A.	2
	Parallel Processing and Computer Networking**	Fall	N.A.	2
	Advanced Course in Control Systems**	Fall	N.A.	2
	Visual Computing **	Spring	N.A.	2

\*These courses should be taken with the corresponding courses, e.g. “Elementary Japanese I” for “Elementary Japanese I-S.”

\*\*Graduate Level

\*\*\*Compulsory for G1 Students

# Course Description

## Japanese Language Course

---

### **Elementary Japanese I [Fall] (Tomoko HONGO and others)**

This course helps students to acquire a basic understanding of Japanese sentence structure and vocabulary to enable them to carry out simple everyday conversations for students who have little or no background of the Japanese.  
Textbook: Tsukuba Language Group “Situational Functional Japanese”

### **Intermediate Japanese I [Fall] (Tomoko HONGO and others)**

This course expands the basic Japanese and prepares students for advanced Japanese.  
Textbook: Tsukuba Language Group “Situational Functional Japanese”

### **Advanced Japanese I [Fall] (Tomoko HONGO and others)**

The objective of this course is to develop students' higher language skills needed in their academic and research life in Japan.

### **Elementary Japanese II [Spring] (Tomoko HONGO and others)**

Sequence from Elementary Japanese I  
Textbook: Tsukuba Language Group “Situational Functional Japanese”

### **Intermediate Japanese II [Spring] (Tomoko HONGO and others)**

Sequence from Intermediate Japanese I  
Textbook: Tsukuba Language Group “Situational Functional Japanese”

### **Advanced Japanese II [Spring] (Tomoko HONGO and others)**

Sequence from Advanced Japanese I

### **Elementary Japanese I-S [Fall] (Tomoko HONGO and others)**

The objectives of this course are to expand the skills acquired in Elementary Japanese I, and help students to continue their study smoothly in Elementary Japanese II. Note that you are required to take half of this course simultaneously with “Elementary Japanese I.”, and the other half will be offered intensively during February and March.  
Prerequisite: Elementary Japanese I

### **Intermediate Japanese I-S [Fall] (Tomoko HONGO and others)**

The objectives of this course are to expand the skills acquired in Intermediate Japanese I, and help students to continue their study smoothly in Intermediate Japanese II. Note that you are required to take half of this course simultaneously with “Intermediate Japanese I.”, and the other half will be offered intensively during February and March.  
Prerequisite: Intermediate Japanese I

### **Advanced Japanese I-S [Fall] (Tomoko HONGO and others)**

This course is designed to expand the skills acquired in Advanced Japanese I, and help students to continue their study smoothly in Advanced Japanese II. Note that you are required to take half of this course simultaneously with “Advanced Japanese I.”, and the other half will be offered intensively during February and March.  
Prerequisites: Advanced Japanese I

### **Elementary Japanese II-S [Spring] (Tomoko HONGO and others)**

This course is designed to develop skills that are not covered deeply in elementary Japanese II, and help students to complete the elementary level of Japanese satisfactorily. Note that you are required to take this course simultaneously with “Elementary Japanese II.”

### **Intermediate Japanese II-S [Spring] (Tomoko HONGO and others)**

This course is designed to develop skills that are not covered deeply in Intermediate Japanese II, and help students to complete the intermediate level of Japanese satisfactorily. Note that you are required to take this course simultaneously with “Intermediate Japanese II.”

### **Advanced Japanese II-S [Spring] (Tomoko HONGO and others)**

This course is designed to develop students' Japanese proficiency necessary for their research and encourage them to do research activities in their major fields in Japanese. Note that you are required to take this course simultaneously with “Advanced Japanese II.”

## Japanese Studies Course

---

### **Intercultural Communication [Spring] (Atsuko TASAKI)**

The objective of this course is to increase students' awareness of cultural diversity issues and cultivate their ability to conduct intercultural communication. We explore various themes that demonstrate the unique value of each culture, and examine cultural differences and similarities from a variety of perspectives. At the same time, the students are provided with opportunities to reconsider their own cultures. Active participation in class discussions, through the sharing of different experiences and points of view, is expected to stimulate students' cultural awareness.

### **Japanese History [Fall] (Yasuko MISONO)**

A solid grasp of Japanese history is very helpful for understanding contemporary Japanese society, culture and life. We focus on major historical factors such as how the climate and geography of the Japanese islands shaped Japanese society, culture, and lifestyles, the historical bases of Japanese tradition, and the development of such characteristics into a “national culture.” The reasons behind the success of the Meiji restoration and Japan’s postwar economic recovery and other issues of particular interest to international students will also be discussed.

### **Japanese Culture [Fall] (Machiko BABA and Yuriko FUKAO)**

This course provides an introduction to Japanese culture and life. We discuss various aspects of life in contemporary Japan including Japanese customs, social events, society, history, economy, and science in order to help students to acquire the knowledge to live and study effectively in Japan.

### **Language and Society [Spring] (Tomoko HONGO)**

This course explores how the languages reflect the societies they are used in. By examining the language use in specific social contexts, the students observe and analyze its intentions and the social significance. The participants are expected to find the pragmatic similarities and differences between Japanese language and their native languages and develop the new perspective for understanding our global society.

### **STEP Special Program I [Fall](Yoshiko KAWABATA and others)**

This course will provide current topics of Japanese studies including a wide social science, cultural science and natural science. The topic will be selected by the program coordinator based on the students’ backgrounds. Exchange program between the students and the regional community will be planned as a practical training.

### **STEP Special Program II [Spring](Yoshiko KAWABATA and others)**

Same as STEP Special Program I

## **Science and Technology Course 1**

---

### **Fundamental Agricultural Science [Fall] (Toshiyuki TSUCHIYA and others)**

This course deals with a variety of current topics in agricultural science, which focuses globally on the increasingly serious situation in many areas of human activities, such as food and natural resources, environment, pollution and population.

### **Fundamental Physics and Mathematics for Engineering [Fall] (Yosuke TANAKA)**

This course deals with basic physics and mathematics useful for students in any fields of engineering. We will focus on a few selected topics and study them through practice and discussion.

### **Japanese Science and Technology [Fall] (Tatsuo NOMA)**

This course is intended to cultivate a better understanding Japanese Science and Technology among students. We focus on current science and technology issues in Japan through a keyword “Materials Science.” These lectures will not only provide students with an important foundation in science and technology, but also help them to develop ideas of their own research.

### **International Cooperation of Science and Technology [Fall] (Yoshiko KAWABATA)**

The objective of this course is to cultivate a better understanding of the cooperation between science and technology. We focus on international cooperation projects between the areas of science and technology, including the use of technologies to solve global environmental problems. These lectures will help students to develop new perspectives on their own research.

### **General Topics of Japanese Industry [Spring] (Tatsuo NOMA and others)**

Comprehensive overview of Japanese industry is introduced; historical backgrounds, automated and sophisticated production systems of today, commodity and specialty products, and in particular, future directions to support the establishment of ecology consciousness today.

### **Environmental Science and Technology [Spring] (Yoshiko KAWABATA and others)**

Humans have always inhabited two worlds. One is the natural world that preceded us and of which we are a part. The other is the world of social institutions and artifacts that we create for ourselves using science and Technology, and political organization. Both worlds are essential to our lives, but integrating them successfully causes enduring tensions. In this course, we introduce relationships between natural world and environmental science and technology.

### **Practical Training: Farm A [Fall] (Jun SHIMADA and other staff of FS Center)**

There are two courses of farming practice, a beginner’s course and an advanced course, conducted at the University Farm. The beginner’s course provides students with a year-round agricultural experience (Spring and Autumn semester) with various kinds of farm work: rice cultivation in the paddy field, upland farming for wheat, corn, soybean, potato, tomato and other vegetables, fruit production, flower growing, animal husbandry. The advanced course provides specialized instruction for each topic above. For example, students who choose the section on upland and vegetable crops receive intensive year-long instruction on planning and crop-growing methods such as seedling raising, planting, general care, and harvesting.

### **Practical Training: Farm B [Spring] (Jun SHIMADA and other staff of FS Center)**

See Practical Training: Farm A

### **Practical Training: Instrumentation Analysis Center [Fall] (Keiichi NOGUCHI)**

The objectives of this course are to teach students the basic principles of structure determination using the X-ray diffraction method, and the application of these principles in practice. Single-crystal X-ray diffraction is the fundamental technique in modern structural chemistry, and the majority of inorganic, organometallic and organic molecular geometries have been established in this way. It is important for all students to have an understanding of the basis, strengths, precision and limitations of this technique.

Schedule (Intensive) 1st week: Crystallization of some small molecules for X-ray measurements; 2nd week: Data collection using a four-circle diffractometer; 3rd week: Crystal structure determination; 4th week: Applications.

### **Independent Study [Spring] (Professors of TUAT)**

Students who wish to pursue a particular research project not covered by STEP@TUAT can draft their own study proposal and be assigned to a professor in the appropriate faculty. The professor and the student should agree upon a study topic and its scope at the beginning of the semester, and the student will submit a report on the topic at the end of the semester.

## **Science and Technology Course 2**

---

### **International Environmental Rehabilitation and Conservation [Fall] (Yuji KOHGO and others)**

This lecture offers the following topics such as: Environmental Changes in Developing Areas, Ecosystem in Agricultural Lands, Investigation Methodology for Environmental Deterioration, Interaction between Biological and Human Activities, and Remediation and Conservation of Regional Environment.

### **International Biological Production and Resource Science [Spring] (Sonoko KIMURA and others)**

The objective of this course is increasing food production and biological resources recycling by utilizing high biological production potential, in order to realize sustainable agriculture for regional and global environmental conservation.

### **International Development on Rural Areas [Fall] (Takashi TOYOTA and others)**

This course provides sustainable social development and community planning focused on economic, social, and population studies combined with natural environmental technology and food production technology.

### **Advances in Mechanical Systems Engineering [Spring] (Professors of the Department of Mechanical Systems Engineering)**

This course covers various fields in mechanical engineering, including Fluid Mechanics, Dynamics of Vibrations, Design and Manufacturing, Strength of Materials, Heat Transfer, Mechanical Behavior of Materials, Automotive Engineering, Automatic Control, Machining Processes, and Robotics. A Professor in each field will lecture on the latest topics in his (or her) field. The course is intended for students who have a college degree in any of the natural or applied sciences. It will provide the latest information on mechanical engineering and its potential for advancing modern technology.

### **Parallel Processing and Computer Networking [Fall] (Hironori NAKAJO)**

This lecture gives knowledge of computer architecture and network technology called System Area Network (SAN) for parallel processing. It is important to understand how a parallel computer works, how nodes in a parallel computer communicate via network and what are essential for the future higher performance.

### **Advanced Course in Control Systems [Fall] (Pongsathorn RAKSINCHAROENSAK)**

This course reviews the scope of vehicle dynamics and its control applications for enhancing vehicle dynamics and active safety. Several active control devices in automobiles and their design principles are described in the lecture, e.g. four-wheel-steering, direct yaw moment control, Adaptive Cruise Control (ACC), Lane Keeping System, etc.

The main goals of the course are,

- (1) to understand the mechanism of active vehicle control devices and state estimation technique in automotive applications and
- (2) to compute the vehicle responses and make an analysis of control performance by using MATLAB / Simulink software.

### **Visual Computing [Spring] (Takafumi SAITO)**

Several topics on computer graphics, visualization, and shape processing are discussed. The lecture includes small practices and introduction of the newest research topics.

# STEP / SPRING@TUAT FAQ

## 1. Application

**Q1:** I found a mistake in the application form which I had already sent. Can I correct the mistake?

**A1:** Please send a mail or an e-mail to the coordinator as soon as possible. In case of sending message through e-mail, please use your own registered account which you specified in the 1st page of the application form. To avoid troubles we may refuse accepting messages from unregistered accounts unspecified on the original application document.

**Q2: I am not a student of a TUAT sister university. Can I apply to the program?**

**A2:** No, you can't. Our program is open for the students from TUAT sister universities.

## 2. Selection

**Q1: How many exchange students will be enrolled in this program?**

**A1:** The total number is about 20 for STEP@TUAT 2012-2013 program, about 5 for SPRING@TUAT 2012 – 2013.

**Q2: So how many students will be enrolled from each sister university?**

**A2:** “Theoretically”, according to the bilateral contract between each sister university and TUAT, the maximum number of the students who can be enrolled in this program is 3 or 5. However, since there are more than **80 sister universities**, the final number of the students from each university will be strongly influenced by the total number of applications.

**Q3: Who will select the students?**

**A3:** There are 2 stages of selection. The first stage is at the screening committee of TUAT. There is an additional stage at JASSO (Japan Student Services Organization) if you also apply for JASSO scholarship.

## 3. Expenses

**Q1: How much will I spend at the beginning?**

**A1:** You will spend “AT LEAST”,

3,000 JPY: Bus> Narita Int’l Airport - Shinjuku (on arrival)

290 JPY: Train> Shinjuku - Campus (on arrival)

10,000-15,000 JPY: Bedclothes (on arrival or next day)

1,000 JPY: Disaster and Accident Insurance (=GAKKENSAN)(for 1 year, on arrival)

1,990 JPY: Personal Liability Insurance for Students (=GAKUBAI) (for 2 years on arrival)

5,000 JPY: Membership of University Student Union (=SEIKYO) (for 1 year on arrival as a deposit)

10,000 JPY: National Health Insurance (approx., for 1 year, after the guidance)

5,000 JPY: Traveling Expense for field work tour (after the guidance)

-----  
36,280-41,280 JPY: Total

**Q2: How much will I spend monthly?**

**A2:** You will spend,

12,300-13,500 JPY: Housing

3,000 JPY: Water and Electricity (approx.)

40,000 JPY: Food (approx.)

Some JPY: Laundry  
Some JPY: Transportation Expenses  
Some JPY: Textbooks and Studying Materials

**Q3: What are the monthly housing expenses?**

A3: We have 2 International Houses.

Koganei International House> Share Bathroom, WC in each room

4,700 JPY: Rent

4,600 JPY: Fee for Common Service

15,000 JPY: Cleaning for Room (at the time of leaving)

3,000 JPY: Monthly Deposit (Oct. 2012 - Jul. 2013)

Fuchu International House> Bathroom in each room.

5,900 JPY: Rent

4,600 JPY: Fee for Common Service

15,000 JPY: Cleaning for Room (at the time of leaving)

3,000 JPY: Monthly Deposit (Oct. 2012 - Jul. 2013)

Monthly Deposit may be refunded when you leave.

**Q4: What are the monthly transportation expenses?**

A4: TUAT has 2 campuses, Fuchu and Koganei. The courses are held at both campuses. Between 2 campuses, it will take 40 min by walk, 20 min by bicycle and 30 min by public transportation (buses and trains).

**Q5: Must I bring some money?**

A5: You should bring some amount of JPY. For the case of former students, they brought 9,000 to 100,000 JPY (55,000 JPY, average). We recommend you to bring about 50,000 JPY if possible. For the expenses at the beginning and at urgencies, you had better prepare JPY in advance.

**Q6: What is the exchange rate?**

A6: 1 US\$ = 78 JPY (As of Dec.15,2011)

**NOTE!! The costs may change without notice.**

## **4. Results**

**Q1: When can I know the results whether I am selected as an exchange student or not?**

A1: There are several stages of selection. Screening by the committee of TUAT (March-April 2012) and JASSO (May 2012). The final results will be informed to you by e-mail and air-mail by middle of June 2012.

## **5. JASSO Scholarship**

**Q1: Do you accept STEP/SPRING@TUAT students without JASSO scholarship.**

A1: Yes, we do. Application to JASSO scholarship is an option and we also welcome students who do not require JASSO. The following table explains the comparison of conditions with/without JASSO scholarship. For more details, contact the program coordinator.

Term	With JASSO Scholarship	Without JASSO Scholarship
	From Oct. 01, 2012 to Sep. 30, 2013	From Oct. 01, 2012 to Sep. 30, 2013
TUAT Tuition and Entrance Fees	Waived	Waived
Accommodation	On-Campus International House (Single Room, approx. JPY15,000 with Water & Electricity)	On-Campus International House (Single Room, approx. JPY15,000 with Water & Electricity)
Travel Expenses to and from Japan	Paid by the Exchange Student	Paid by the Exchange Student
Airline Ticket to and from Japan	Arranged by the Exchange Student	Arranged by the Exchange Student
Document for Visa Application 1: Certificate of Eligibility	Arranged by the Coordinators' Office	Arranged by the Coordinators' Office
Document for Visa Application 2: Certificate of Admittance	Arranged by the Coordinators' Office	Arranged by the Coordinators' Office
Document for Visa Application 3: Certificate for Expenses	Arranged by the Coordinators' Office	Arranged by the Coordinators' Office based on the documents submitted from the Exchange Student
Monthly Stipend	Provided by JASSO	None
Arrival	Arranged by the Coordinators' Office	Arranged by the Coordinators' Office
Guidance	Arranged by the Coordinators' Office	Arranged by the Coordinators' Office

**Q2: How many students will receive JASSO scholarship?**

A2: Due to the severe financial difficulties of the Japanese Government and JASSO, the total amount of scholarship has been reduced every year. So we can not tell the exact number.

**Q3: When can I get the JASSO scholarship?**

A1: The first scholarship, 80,000 JPY will be given to you on the day or the next day of your arrival.

(Total amount of Scholarship=960,000 JPY if you stay 12 months)

**NOTE!! The amount may change without notice.**

**Q4: Is my travel expenses covered by JASSO Scholarship?**

A1: No, it isn't. You need to book airline tickets by yourself.

## **6. Others**

**Q1: Upon my arrival at Japan, will anybody pick me up at the airport?**

A1: No, unfortunately, we can't. We will ask you to take an airport bus to central Tokyo. Our staff will wait for you at the **downtown** bus terminal and take you to TUAT campus.