

## Outline of Global Scientists and Engineers Course

### 1. Course description and aims

The Global Scientists and Engineers Course (GSEC) provides a systematic curriculum that enables bachelor's and master's degree students to develop the necessary competencies to excel in the global arena.

Through step-by-step approach, students will be able to gain global competencies as follows ; (a) a global mindset, (b) practical skills to work in global environment, and (c) skills necessary for international collaboration. GSEC aims to foster scientists and engineers who thrive in a global society and have the expertise to contribute innovative solutions to unknown global issues. Through GSEC, it is hoped that ones will be equipped with identity based on their field of expertise/knowledge/technical skills, as well as global mindset to respect ethical values and diversity.

GSEC consists of the following 3 levels:

- Global Scientists and Engineers Course – Basic
- Global Scientists and Engineers Course – Intermediate<sup>1</sup>
- Global Scientists and Engineers Course – Advanced

The global competencies to be developed at each level are as follows:

GSEC – Basic:

- the foundation necessary to advance to the intermediate level

GSEC – Intermediate:

- global perspective
- English proficiency and communication skills
- multicultural understanding and teamwork
- problem finding and solving skills
- practical ability

GSEC – Advanced:

- international liberal arts
- global leadership
- skills to bring new ideas and values
- basic skills to conduct international joint research

GSEC acknowledges the development of international experience as one of Tokyo Tech's key goals in education. After fulfilling the requirements to complete the intermediate level, students will be recognized that s/he has gained international experience and thus gained following skills/mindset:

- broadened perspectives
- an appreciation of diversity and collaboration with people from other countries
- improved communication skills in foreign languages

## **2. Eligibility**

Tokyo Tech students in a bachelor's, master's, or professional master's degree program.

## **3. Course information**

Refer to the attached lists of completion requirements for course information such as titles, credits, quarters in which courses are offered, etc. The lists are also available at the following links:

[http://www.ghrd.titech.ac.jp/w/common/pdf/gsec\\_requirement\\_list.pdf](http://www.ghrd.titech.ac.jp/w/common/pdf/gsec_requirement_list.pdf)

(GSEC-Basic and Intermediate, in Japanese only)

[http://www.ghrd.titech.ac.jp/advanced/common/pdf/requirements\\_A.pdf](http://www.ghrd.titech.ac.jp/advanced/common/pdf/requirements_A.pdf)

(GSEC-Advanced)

## **4. Entry requirements and registration procedures**

GSEC – Basic and Intermediate:

Eligible applicants include

- (a) Bachelor's degree students
- (b) Master's and professional master's degree students who have not yet fulfilled the criteria for GSEC – Advanced.

Registration to enroll in GSEC must be completed through the Web System for Students and Faculty during the specified registration period in the first and third quarters..Enrollment in either GSEC – Basic or GSEC – Intermediate will be determined based on the requirements the applicant has met, including acquired course credits and English proficiency at the time of their application. After fulfilling the completion requirements for GSEC – Basic, they are allowed to advance to the intermediate level automatically.

GSEC – Advanced:

The applicant must be a master's degree or professional master's degree student as well as one

of the following:

- (a) A graduate of Tokyo Tech who successfully completed the previous GSEC (before March 2017) or current GSEC – Intermediate.

A photocopy of the Certificate of Completion must be submitted with the application.

- (b) A graduate of another university who has acquired basic global competencies and fulfilled the minimum test score or level requirements of one of the following:

TOEFL iBT, 80 points

TOEFL ITP, 550 points

TOEIC, 750 points

IELTS, 6.0 points

EIKEN Grade Pre-1

The Application Form, including the academic supervisor's signature of consent, must be submitted to the Support Office for the Promotion of Global Human Resource Development. A photocopy of the Official Score Report of one of the above-mentioned tests must also be submitted, along with one of the following:

- documentation (certificates, etc.) proving that the applicant has the same level of global competencies as those who have completed GSEC - Intermediate

- an essay describing how the applicant possesses the global competencies necessary to enroll in GSEC – Advanced

Applicants will be screened accordingly.

## **5. Completion requirements**

In order to complete each level of GSEC, students must obtain credits in the designated courses and satisfy the conditions as specified below. Credits attained in the standard curriculum can be used towards completion requirements. Students must carefully plan their course registration and note that GSEC-related courses have restrictions on the number of students to be accepted in the courses.

### **5-1. GSEC – Basic**

Students must attain at least 9 credits from among the courses on the completion requirements list, and the minimum score of one of the following to prove English proficiency:

TOEFL iBT, 72 points

TOEFL ITP, 533 points

TOEIC, 680 points

### 5-2. GSEC – Intermediate

Students must attain at least 15 credits (including 9 required to complete the basic level) from the courses on the completion requirements list, and the minimum test score or level of one of the following to prove the English proficiency:

TOEFL iBT, 80 points

TOEFL ITP, 550 points

TOEIC, 750 points

IELTS 6.0 points

EIKEN Grade Pre-1

### 5-3. GSEC – Advanced

Students must attain 4 credits (not including those required to complete the basic and intermediate levels) from among the courses on the completion requirements list, and study abroad for at least 8 consecutive weeks (minimum 40 study days). If the duration is less than 8 weeks, students must fulfill either (a) or (b) of the following:

(a) Study abroad for at least 6 consecutive weeks (minimum 30 study days) and meet one of the following conditions:

(i) Acquire one credit among the courses designated as equivalent to study abroad experience (marked with circles under the category of “Course equivalent to study abroad experience” in the completion requirements list)

(ii) Study abroad for at least 2 consecutive weeks (separate from the above 6-week trip)

(iii) Make present at an international conference

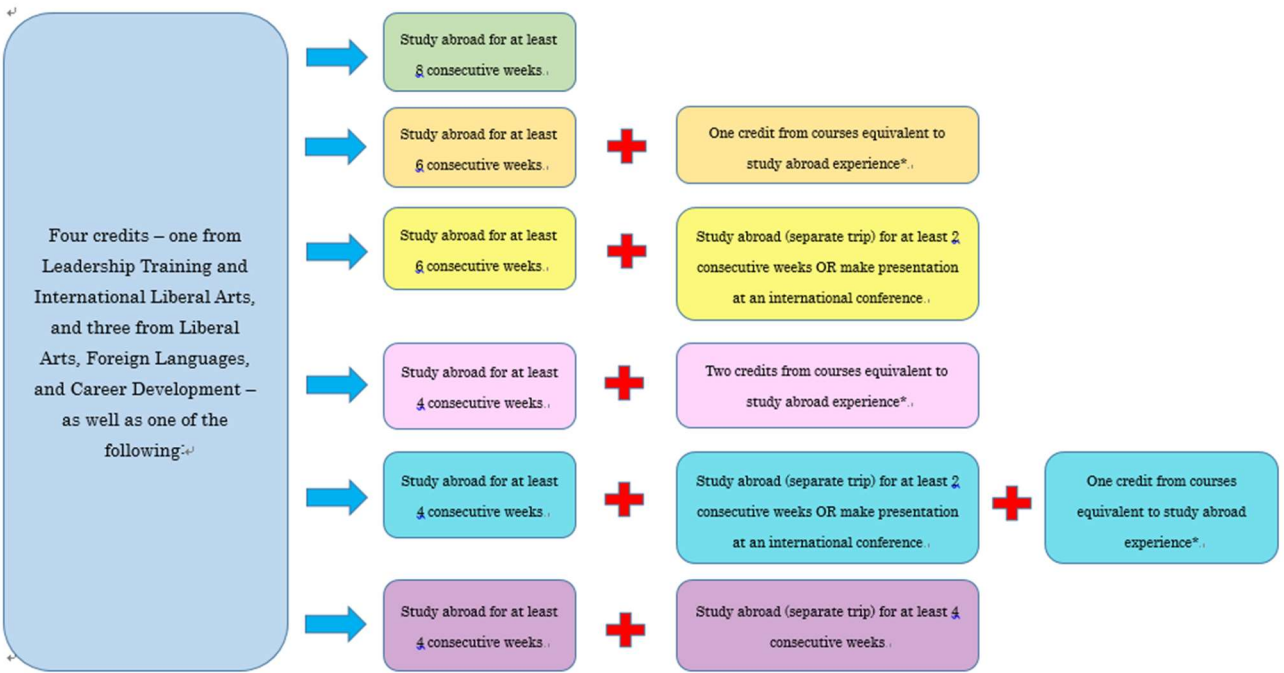
(b) Study abroad for at least 4 consecutive weeks (minimum 20 study days) and meet one of the following conditions:

(i) Acquire two credits from among the courses designated as equivalent to study abroad experience

(ii) Acquire one credit from among the courses designated as equivalent to study abroad experience, and study abroad for at least 2 consecutive weeks (separate from the above 4-week trip) or make presentation at an international conference

(iii) Study abroad for at least 4 consecutive weeks (separate from the above 4-week trip)

**Completion Requirements for GSEC—Advance<sup>1)</sup>**



<sup>2)</sup> \*marked with circles in English Language Courses<sup>3)</sup>

Recognition of study abroad experience

Students must be recognized to possess international experience necessary to acquire GSEC—Advanced skills. Their study abroad experiences must satisfy requirements for course completion. To receive this recognition, student must submit a request with academic transcripts (including the number of credits) obtained from the study abroad program<sup>2)</sup> to the Support Office for the Promotion of Global Human Resource Development within one month upon return.

Those who studied abroad for less than 8 consecutive weeks must attain academic transcripts including the number of credits, and additional course credits from one of the following:

- (a) Global Awareness and Other Breadth Courses<sup>3)</sup> or graduate major courses
- (b) foreign language courses<sup>4)</sup>
- (c) an overseas university from another study abroad program

For questions regarding completion requirements or study abroad planning, contact the Support Office for the Promotion of Global Human Resource Development.

Students should input necessary information about study abroad experiences to learning portfolios before leaving Japan.

Approval of presentations at international conferences

In order for the student to have recognition of presentation at international conference as part

of completion requirement, s/he should submit a copy of the following documents to the Support Office for Promotion of Global Human Resource Development:

- (i) A cover of the conference program containing information such as conference title, objectives, venue and period
- (ii) Page(s) of the conference program showing the presenter's name, presentation title, and abstract
- (iii) The applicant's abstract or the first page of the paper submitted to the conference

## **6. Procedure for completing GSEC**

Students must submit a request form for course completion and fulfill their learning portfolios. The Certificate of Completion for GSEC will be issued at the time of graduation.

Notes:

- <sup>1</sup> GSEC – Intermediate is equivalent to the old GSEC for undergraduates from April 2012 to March 2017.
- <sup>2</sup> Academic transcripts proving granted credits from Tokyo Tech, a Tokyo Tech partner university or other overseas universities are necessary.
- <sup>3</sup> Course credits attained from “Advanced Overseas Training for Global Scientists and Engineers” can be included. For credits relating to international experience granted by graduate majors, ask relevant instructors.
- <sup>4</sup> Credits attained from foreign language courses cannot be counted more than once toward the completion requirements of GSEC – Advanced or study abroad experience.

Inquiries:

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