

# Course Requirement Guide Book

(October 2013)

International Doctoral Degree Program



**TOYOHASHI**  
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# I Requirements for completion

## 1. Requirements for completion

To complete the doctoral course, a student must participate in the course for three or more years, and must acquire the minimum credits required as follows. A student must carry out a research under a proper guidance by faculty members. Also a student must submit a doctoral thesis, and must pass the review and final examination.

Note that students showing excellent achievements may finish in a shorter study period.

Classification	Required credits for completion	Remarks
Mechanical Engineering	12	4 credits in total can be substituted with combination of following options , with permission from your supervisor. 1. Specialized subjects from International Master's Degree Program (except Advanced subjects ) 2. Subjects of other department from International Doctoral Degree Program 3. Subjects from doctoral program of student's own department held in Japanese (Note that you cannot chose a subject in Japanese if you already took the same subject held in English and vice versa)
Electrical and Electronic Information Engineering	12	
Computer Science and Engineering	12	
Environmental and Life Sciences	12	
Architecture and Civil Engineering	12	

## 2. Application for degree

Only a student who has acquired the credits required for completion, or who is expected to acquire the required credits can apply for the doctoral degree. Degree application and submission procedure of thesis for doctoral degree shall be posted on a bulletin board.

## **II Class registration, examination, attendance period**

### **1. Class registration method**

Classes shall be registered according to the education schedule of your respective major.

#### **(1) Making your study plan**

To make your study plan, read this Guide Book thoroughly, and follow the instructions and advices given during the orientation and from your supervisor.

Course Schedule is provided at the beginning of each academic year.  
Schedule for intensive classes will be posted on a bulletin board when the details are fixed.

#### **(2) Class registration**

The student must register the classes by Dream Campus

<https://www.ead.tut.ac.jp/portal/>

through TUT website or by "Application for Subjects" during the designated period.

\*Classes cannot be registered nor withdrawn after the designated registration period.

Those classes without registration will not be accredited in any case.

#### **NOTES**

1) To take Specialized subjects from International Master's Degree Program (except Advanced topics subjects), subjects from your own department held in Japanese, or other department's subjects from International Doctoral Degree Program, he/she must obtain approval from his/her supervisor and the subject instructor with "Application for Registration of Subjects in Other Department"

2) If the student does not attend the class nor take the examinations, credits will not be given even if the registration is made.

3) A student cannot re-register the subject for which credits are given.

4) Subjects held at the same time schedule cannot be registered. Note that this does not apply for intensive subjects.

#### **(3) Confirming and amending the registration**

To confirm your class registration or to amend, please access Dream Campus, and follow the manuals for how to use.

#### **(4) Repeating classes**

Basically, a student who has failed in a subject with regular examinations, or some other reasons, can take the same subject again in the next academic year.

To repeat a subject, he/she must make registration again.

## **2. Examination**

Examination includes regular examinations and makeup examinations.

### **(1) Regular examination**

Regular examinations shall be held during the set period at the end of each term, as a principal.

All students are to check the exam schedule on the academic calendar through Dream Campus or bulletin board at A-building. Note that examination may be held at any time when found necessary by the subject instructor.

### **(2) Make-up examination**

1) Make-up examination shall be held only when a student could not take the regular examination due to the following reasons. The student must gain the approval of the subject instructor with "Request for makeup examination".

- a) Illness (doctor's medical certificate must be submitted)
- b) Accidents or disaster (certificate must be submitted), and other special reasons (a letter explaining the reason must be submitted).

2) "Request for makeup examination" must be submitted to Academic Affairs Division within one week from the final date of regular examination.

3) If a student fails to take the makeup examination, further examination will not be held.

### **(3) Approval of credits and evaluation**

Credits are approved from the subject instructor.

1) Your grades are calculated according to the following basis.

Grading	Scores	Approval
A	Over 80	Units certified
B	65-79	Units certified
C	55-64	Units certified
D	Under 55	Units NOT certified

2) Results will be available on Dream Campus after the certain days of the examination.

## **3. Maximum years of attendance, etc.**

### **(1) Maximum years of attendance**

It is not allowed for a student to be in the doctoral course at the university exceeding six years.

### **(2) Leave of absence**

If a student cannot attend classes for two or more months uninterruptedly due to illness or other special reasons, he/she may submit "Request for leave of absence" to Academic Affairs Division after getting the approval from his/her supervisor, member of academic affair committee, and their department head. Upon approval from the President, the student can take a leave of absence (maximum two years in total).

The period of this absent will not be counted as the above "(1) Maximum years of attendance".

To return to school after the approved period ends, the student must submit "Notification of return to school".

To return to school before the approved period ends due to the elimination of the reason, the student must submit "Request to return to school" and obtain approval.

### (3) Withdrawal

If a student wants to withdraw from the university, he/she must submit "Request for withdrawal" to Academic Affairs Division after getting the approval from his/her supervisor, member of academic affairs committee, and their department head. Upon approval from the President, the student can withdraw from the university.

Note that the tuition fee has to be paid in full amount even if you withdraw in the middle of term.

### (4) Elimination from University


A student will be eliminated from the university for following reasons.

- 1) When a student exceed the period mentioned in above "(1). Maximum years of attendance"
- 2) When a student cannot return to school after the period mentioned in above "(2) Leave of absence."
- 3) When a student dies, or is disappeared.
- 4) Those have been approved for the half exemption or postponement of admission fee payment and who did not pay for the admission fee by the designated date.
- 5) Those who failed to pay for the tuition and did not pay for even after the warning.

## 4. Others

### (1) Information about canceled or makeup classes

All students are requested to double-check about your classes with following tools bulletin boards:

Location		information
Lecture hall at 1 <sup>st</sup> floor. A-bldg.	Central Bulletin Board (panel board)	Class schedule change
	Electronic Bulletin Board (LCD)	Canceled or makeup classes, rescheduled notices
	Glass-covered Bulletin Board	Others
TUT website	<a href="http://annai00.gakumu.tut.ac.jp/adlight/adlightwww/conduct_list_a.asp">http://annai00.gakumu.tut.ac.jp/adlight/adlightwww/conduct_list_a.asp</a>	Canceled or makeup classes
TUT website for mobile phones	<a href="http://osirabe.net/tut/">http://osirabe.net/tut/</a> *Mobile tagging by camera phones 	Canceled or makeup classes

## **(2) Classes/exams in case A STORM WARNING is announced.**

In case a storm warning is announced for Toyohashi city, TUT will conduct classes or examinations as follows:

- 1) To prevent any accident, all classes will be canceled during the Storm Warning
- 2) If the storm warning is cleared before 7:00 am, all classes are on schedule.
- 3) If the storm warning is cleared between 7:00 am and 11:00 am, all classes start from 3rd period (\*Classes of 1st and 2nd period will be canceled)
- 4) If the storm warning is still announced after 11:00 am, all classes will be canceled.

\*All cancelled classes and examinations will be rescheduled.

## **(3) Information about RESCHEDULED CLASSES/EXAMS**

Classes/exams canceled by natural disasters will be rescheduled on "YOBIBI"(an optional extra day). YOBIBI may also be used for makeup classes. Students may check the YOBIBI schedules two weeks before the dates on bulletin board at lecture hall, A-Bldg.

\*YOBIBI will be used for rescheduling classes/exams cancelled by the storm warning etc., as a priority.

You must double check the information from TUT especially on unusual cases.

## **(4) University's e-mail account**

TUT strongly recommends all students to set up the e-mail forwarding service in order to receive important information of class-scheduling, grading and other communications from the university.

## **(5) Absence from classes**

When you have to be absent from classes due to illness, bereavement or other reasons, you need to inform reasons to your subject instructor by yourself.

The way how your absence will be dealt with depends on the subject instructor.

Reasons of Absence	Certificate you should submit	Procedure
Illness/Injury	Medical certificate or Medical expense receipts	Students inform lecturers directly
Bereavement leave	Letter or notice of funeral	Students inform lecturers directly
Infection diseases*	Medical certificate or Medical expense receipts	Students inform Student Affairs Division (0532-44-6553), TUT office staff will report to lecturers.

\*TUT may admonish suspension in order to prevent spread infection. Suspension order will be posted on bulletin board at A-building.

### **III Curriculum**

#### **1. Classes and credits**

##### **(1) Classes**

Classes in Doctoral Program are only specialized subjects. Credits are set for each subject.

( For the subjects to be offered, see the following pages.  
See the web syllabus for details of each subject. )

##### **(2) Compulsory subjects and elective subjects**

1) Compulsory subjects are the subjects that must be completed as your requirement for the major.

2) Elective subjects can be selected and taken from those subjects being offered for the designated numbers of credits.

##### **(3) Calculating credits**

Teaching types of classes are lecture, seminar, experiment, practical or hands-on training, and they are offered individually or in combination among them. The class time for one credit is calculated under the following standards.

\*Typical class in university is counted as 2 hours.

1) For lectures, one credit requires 15 hours of classes.

2) For exercises, one credit requires 30 hours of classes

3) For experiments, practical or hands-on training, one credit requires 45 hours of classes.

##### **(4) School term**

School term is determined according to the academic year calendar, and consists of two terms; Spring term (from April 1 until September 30) and Fall term (from October 1 until March 31)

**Mechanical Engineering****2013.10**

Compulsory / Elective	Subject Name	Credits	Instructor	1st grade		2nd grade	3rd grade	Note
				Fall	Spring			
				2013.10 — 2014.3	2014.4 — 2014.9	2014.10 — 2015.9	2015.10 — 2016.9	
Compulsory	Advanced Seminar on Mechanical Engineering 1	4	Supervisor	4				
	Advanced Seminar on Mechanical Engineering 2	1	Supervisor			1		
	Seminar on Interdisciplinary Research	1				1		
Elective	Advanced Mechanical Systems	2	S. Kawamura T. Adachi Y. Takeichi		1			
	Advanced Production Processes	2	K. Mori T. Shibata Y. Abe T. Kawashima	1				
	Advanced Manufacturing Processes	2	M. Fukumoto T. Yasui M. Izaki S. Yokoyama		1			
	Advanced Materials Science	2	Y. Todaka M. Kobayashi	1				
	Engineering of Intelligent Robotics	2	K. Terashima S. Suzuki T. Miyoshi N. Uchiyama		1			
	Advanced Production and Instrumentation Systems	2	Z. Zhang R. Batres T. Miyake	1				
	Advanced Energy Engineering	2	K. Kitamura S. Noda T. Suzuki		1			
	Advanced Environmental Engineering	2	A. Iida N. Sekishita H. Yanada	1				



## Electrical and Electronic Information Engineering

2013.10

Compulsory / Elective	Subject Name	Credits	Instructor	1st grade		2nd grade	3rd grade	Note
				Fall	Spring			
				2013.10 — 2014.3	2014.4 — 2014.9	2014.10 — 2015.9	2015.10 — 2016.9	
Compulsory	Seminar on Electrical and Electronic Information Engineering 2	4	Supervisor	4				
	Seminar on Electrical and Electronic Information Engineering 3	1	Supervisor			1		
	Seminar on Interdisciplinary Research	1				1		
Elective	Advanced Electronic Materials 1	2	M. Inoue T. Hattori H. Muto T. Ishiyama		1			
	Advanced Electronic Materials 2	2	M. Fukuda A. Matsuda Y. Nakamura H. Takagi	1				
	Advanced Electrical Systems 1	2	M. Nagao H. Takikawa Y. Sakurai N. Hozumi	1				
	Advanced Electrical Systems 2	2	Y. Suda R. Inada Yo. Murakami		1			
	Advanced Microelectronics 1	2	M. Ishida K. Sawada Yu. Murakami H. Sekiguchi		1			
	Advanced Microelectronics 2	2	A. Wakahara A. Sandhu H. Okada T. Kawano	1				
	Advanced Information and Communication Systems 1	2	T. Ohira H. Uehara		1			
	Advanced Information and Communication Systems 2	2	S. Ichikawa			1		
	Methodology of R & D	2	Supervisor	1				

## Computer Science and Engineering

2013.10

Compulsory / Elective	Subject Name	Credits	Instructor	1st grade				2nd grade	3rd grade	Note
				Fall 1	Fall 2	Spring1	Spring2			
				2013.10 — 2014.3	2014.4 — 2014.9	2014.10 — 2015.9	2015.10 — 2016.9			
Compulsory	Seminar on Computer Science and Engineering 1	4	Supervisor	4						
	Seminar on Computer Science and Engineering 2	1	Supervisor			1				
	Seminar on Interdisciplinary Research	1				1				
Elective	Computer System Engineering	2	R. Kobayashi	1						
	Speech and Language Processing	2	T. Akiba K. Yamamoto		1					
	Robotics Intelligence 1	1	J. Miura	1						
	Robotics Intelligence 2	1	M. Okada		1					
	Web Data Engineering, Advanced 1	1	M. Aono		1					
	Web Data Engineering, Advanced 2	1	S. Kuriyama			0.5				
	Biological Information System Engineering 1	1	N. Fukumura		1					
	Biological Information System Engineering 2	1	J. Horikawa			1				
	Brain and Neural System Engineering	2	S. Nakauchi M. Kitazaki			1				
	Computer Network Engineering	2	K. Umemura	1						
	Pattern Information Processing	2	Y. Kanazawa Y. Sugaya	1						
	Molecular Simulation	2	H. Sekino H. Goto N. Kurita		1					
	Advanced Molecular Information Engineering	2	Y. Takahashi H. Kato			1				
	Advanced Complex Systems and Intelligent Informatics 1	1	K. Murakoshi	1						
	Advanced Complex Systems and Intelligent Informatics 2	1	Y. Ishida		1					
	Theoretical Computer Science, Advanced	2	S. Masuyama T. Fujito			1				

◆ "0.5" signifies that this subject will be held in any one of a quarter term (Spring 1, Spring 2, Fall 1 or Fall 2).

## Environmental and Life Sciences

2013.10

Compulsory / Elective	Subject Name	Credits	Instructor	1st grade		2nd grade	3rd grade	Note
				Fall	Spring			
				2013.10 — 2014.3	2014.4 — 2014.9	2014.10 — 2015.9	2015.10 — 2016.9	
Compulsory	Seminar on Environmental & Life Sciences 1	4	Supervisor	4				
	Seminar on Environmental & Life Sciences 2	1	Supervisor			1		
	Seminar on Interdisciplinary Research	1				1		
Elective	Advanced Environmental Technology 1	2	A. Mizuno S. Tanaka K. Takashima Y. Hatsukade		1			
	Advanced Environmental Technology 2	2	A. Matsumoto T. Oguchi T. Mizushima	1				
	Advanced Ecological Engineering	2	N. Kakuta H. Nakano N. Goto H. Daimon T. Tokairin		1			
	Advanced Biotechnology 1	2	T. Eki A. Hiraishi T. Tanaka		1			
	Advanced Biotechnology 2	2	E. Yoshida S. Yoshida	1				
	Advanced Molecular Function Chemistry 1	2	S. Itsuno H. Tsuji S. Iwasa		1			
	Advanced Molecular Function Chemistry 2	2	Y. Saito Y. Hirata	1				

## Architecture and Civil Engineering

2013.10

Compulsory / Elective	Subject Name	Credits	Instructor	1st grade		2nd grade	3rd grade	Note
				Fall	Spring			
				2013.10 — 2014.3	2014.4 — 2014.9	2014.10 — 2015.9	2015.10 — 2016.9	
Compulsory	Seminar on Architecture and Civil Engineering 1	4	Supervisor	4				
	Seminar on Architecture and Civil Engineering 2	1	Supervisor			1		
	Seminar on Interdisciplinary Research	1				1		
Elective	Advanced Mechanics and Design of Spatial Structure Systems	2	T. Saito S. Nakazawa	1				
	Advanced Structural Design	2	T. Saito T. Matsui	1				
	Advanced Building Environmental Engineering and Building Services	2	H. Matsumoto Y. Masuda		1			
	Advanced Theory in Architectural Design	2	S. Matsushima Y. Kakino	1				
	Advanced History of Architecture	2	H. Izumida	1				
	Sustainable Urban Planning	2	A. Ohgai J. Asano	1				
	Advanced Geologic Hazard Mitigation Planning	2	M. Kawamura K. Miura	1				
	Advanced Water Environmental Engineering	2	T. Inoue S. Kato K. Yokota	1				
	Advanced Transportation Systems and Economics	2	Y. Hirobata Y. Miyata H. Shibusawa		1			
	Advanced Environmental Economics and Planning	2	Y. Miyata	1				
	Advanced Management of Technology	2	T. Fujiwara H. Shibusawa		1			
	Advanced Western Culture	2	K. Aikyo M. Tamura		1			