Course Requirement Guide Book

(October 2022)

International Master's Degree Program



I Requirements for completion

1. Requirements for completion

To complete the master's course, a student must participate in the course for two or more years, and must acquire the minimum credits required as follows. A student must carry out a research program under proper guidance by faculty members. In addition, a student must submit a master's thesis, and must pass a review and final examination.

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

	Classification	Required credits for completion	Remarks
6	General subjects	6	
S	pecialized subjects		
	Mechanical Engineering	24	
	Electrical and Electronic Information Engineering	24	6 credits in total can be substituted with a combination of the following options, with
	Computer Science and Engineering	24	permission from the student's supervisor. 1. Specialized master's subjects
	Applied Chemistry and Life Science	24	from the other departments 2. Specialized master's subjects held in Japanese (The same subject cannot be
	Architecture and Civil Engineering	24	taken in both Japanese and English)
	Grand total	30	

2. Application for degree

Only a student who has earned the credits required for completion, or who is expected to earn the required credits can apply for the master's degree. Degree application and procedures for submission of a thesis for a master's degree shall be posted on a bulletin board before the submission period.

II Class registration, examination, and attendance period

1. Class registration method

Classes shall be registered according to the program schedule of the student's respective major.

(1) Making study plans

To make study plans, the student should read this Guide Book thoroughly, and follow the instructions and advice given during the orientation and by the supervisors.

The Course Schedule is provided at the beginning of each academic year.

Schedules for intensive classes will be posted at "KYOMU JOHO SYSTEM" and on a bulletin board when the details are fixed.

(2) Class Registration

Students must register for classes using "KYOMU JOHO SYSTEM" at the TUT website https://kyomu.office.tut.ac.jp/portal/

or by the form "Application for Subjects" during the designated period.

*Classes cannot be registered for nor withdrawn from after the designated registration period. Classes with no registration will not be accredited in any case.

NOTES

- 1) To take specialized subjects given in other departments, or given in Japanese, students must obtain approval from their supervisor and the subject instructor with the form "Application for Registration in Subjects in Other Department," before registering.
- 2) If the student does not attend the classes nor take the examinations, credits will not be given even if the registration is made.
- 3) A student cannot re-register for a subject once credits are given.
- 4) Only one subject can be registered for in a given time schedule. Note that this does not apply to intensive subjects.

(3) Confirming and amending the registration

To confirm or amend class registration, students should access "KYOMU JOHO SYSTEM", and follow the manuals instructions.

(4) Repeating classes

In principle, a student who has failed a subject with regular examinations or has not gained credits for some other reasons can take the same subject again in the next academic year. To repeat a subject, the student must register again.

2. Examination

Examinations include regular examinations and make-up examinations.

(1) Regular examination

In principle regular examinations shall be held during the set period at the end of each term.

All students are to check the examination schedule in the academic calendar at "KYOMU JOHO SYSTEM" or on the bulletin boards. Note that examinations may be held at any time found necessary by the subject instructor.

(2) Make-up examination

- 1) Make-up examinations shall be held only when a student cannot take the regular examination for one of the following reasons. The student must gain the approval of the subject instructor using the form "Request for a make-up examination".
 - a) Illness (doctor's medical certificate must be submitted)
 - b) Accidents, disaster (certificate must be submitted), or other special reason (a letter explaining the reason must be submitted)
- 2) "Request for a make-up examination" must be submitted to the Educational Affairs Division within one week from the final date of the regular examination.
- 3) If a student fails to take the make-up examination, further examinations will not be allowed.

(3) Recognition of Credits and Grading System

Course instructors recognize credits for courses based on the results of examinations, etc.

- ① Student performance is graded based on the following standards. S, A, B and C are passing grades while D is a failing grade. Credits are awarded to grade C and above.
 - S···90 to 100 points
 - $A \cdots 80$ to 89 points
 - $B \cdots 70$ to 79 points
 - C···60 to 69 points
 - D···59 points or less
- With the aim of making course grades internationally compatible, TUT has launched a Grade Point Average (GPA) system, providing a barometer to judge the overall performance of students, starting with students who entered TUT in academic year 2018. The objectives of the GPA system are to fairly grade performance and to enhance students' desire for study by calculating the point average as a barometer to indicate the state and results of students' academic performance.

Grade	Points	Description of Grade	Judgement	Grade Point
S	90 to 100 points	Excellent—Outstanding performance		4.0
Α	80 to 89 points	Good—Excellent performance	Pass	3.0
В	70 to 79 points	Satisfactory—Generally sound performance	Pass	2.0
С	60 to 69 points			1.0
D	59 points or less	Failure	Failure	0.0
N	-	Course for credit recognition (not included in GPA)	Pass (Recognition)	N/A
Н	-	Abandoned course (Course the student abandoned by continuing to miss the class or no taking an examination without cancelling the registration)	Abandonment	0.0
K	-	Invalidated grade due to misconduct	Invalid	0.0

GPA is an average calculated by converting above letter grades to grade points (GP) ranging from 0.0 to 4.0, multiplying these grade points by the number of credits for each course, and then dividing the total grade points by the total amount of registered credits.

Note, however, that grades from the following courses cannot be used to calculate GPA. Such courses are marked with a hyphen in the GP column of the grade report.

- (1)Courses for which credits were earned on the basis of the credit exchange system conducted with other universities, graduate schools, etc.; courses that were registered at other universities or junior colleges while enrolled in TUT; and courses that were registered at universities, junior colleges or graduate schools in foreign countries
- (2)Courses for which credits were earned before entering TUT and were recognized after entering TUT; courses that were registered at TUT, other universities or junior colleges before entering TUT; and courses registered at universities, junior colleges or graduate schools in foreign countries (including courses registered for as a credited auditor student)
- (3)Courses for which credits were earned through mid-course entry, interschool transfer, readmission, or studying abroad, and were subsequently recognized
- (4)Courses for which credits cannot be counted toward graduation requirements; and courses for which credits were earned through the system for advance registration to graduate school programs
- (5)Courses that are designated separately by each department (On-the-job Training (internships), Supervised Research, Seminars, experimental courses, and practical training courses)
- ③ Each student can check grades and GPA for recognized credits in the "KYOMU JOHO SYSTEM".

(4) System for appealing grades

Students who have concerns about their grades for a particular semester should inquire from the class instructor. If students have complaints regarding the instructor's response, they can submit an appeal. Students, however, cannot appeal the reason or basis for the grade.

Students should contact the Educational Affairs Division for details.

3. Maximum years of attendance and related matters

(1) Maximum years of attendance

A student may not be in the master's course at the university for more than four years.

(2) Leave of absence

If a student cannot attend classes for two or more months consecutively due to illness or other special reasons, the student may submit the form "Request for leave of absence" to the Educational Affairs Division after getting approval from the supervisor, a member of the academic affairs committee, and their department head. Upon approval by the President, the student can take a leave of absence (maximum two years in total).

The period of this absence will not be counted in the "Maximum years of attendance" mentioned in paragraph (1) above.

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

To return to school before the approved period following the removal of cause of absence, the student must submit the form "Application for return to university" and obtain approval.

(3) Withdrawal

If a student wants to withdraw from the university, the student must submit the form "Application for withdrawal from university" to the Educational Affairs Division after getting the approval from the supervisor, a member of the academic affairs committee, and the department head. Upon approval by the President, the student can withdraw from the university.

Note that the tuition fee has to be paid in full even if the student withdraws in the middle of a term.

(4) Removal from the University

A student will be removed from the university for the following reason.

- 1) A student exceed the period mentioned above in paragraph (1) "Maximum years of attendance".
- 2) A student cannot return to school after the period of absence mentioned above in paragraph (2) "Leave of absence".
- 3) A student dies, or disappears.
- 4) A student who has been approved for half exemption or postponement of admission fee payment and does not pay the admission fee by the designated date.
- 5) A student fails to pay the tuition and does not pay even after a warning.

4. Other matters

(1) Information about canceled or make-up classes

All students are requested to double-check their class schedules and other information using the following means:

	Location	information
TUT website	https://kyomu.office.tut.ac.jp/portal/Public/Board/BoardList.aspx	Canceled or make-up classes
TUT website for mobile phones	https://kyomu.office.tut.ac.jp/mobile/Main.aspx	Canceled or make-up classes

(2) Classes/exams when a STORM WARNING is announced.

If a Storm Warning (*Bo-fu Keiho*) is announced for Toyohashi city or the South-east area of the Mikawa region, TUT will deal with 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 will be on schedule.
- 3) If the Storm Warning is cleared between 7:00 am and 11:00 am, all classes will start from the 3rd period (*Classes in the 1st and 2nd period will be canceled).
- 4) If the Storm Warning continues after 11:00 am, all classes will be canceled.
- *All cancelled classes and examinations will be rescheduled.
- 5) Whether or not a storm warning is announced, classes may be canceled because of suspension of public transportation service or some similar occurrence, at the discretion of the Vice President for Educational Affairs.
- 6) If cancelled classes cannot be held on YOBIBI (optional extra day), and final exams, on the alternate exam day, a Saturday may be used as an alternate day for classes or exams.
- 7) The above shall not apply to remote classes.

(3) 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.

(4) Absence from classes

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

Absences will be dealt with at the discretion of subject instructors.

Reasons for Absence	Documents 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
Infectious diseases*	Medical certificate or medical expense receipts	Students inform the TUT Health Care Center (0532-44-6632) in addition to informing lecturers directly.

^{*}TUT may require suspension in order to prevent the spread of infection. Suspension orders will be notified by email from TUT or KYOMU JOHO SYSTEM.

For student information about the new coronavirus, check the university website or the email from TUT.

III Curriculum

1. Classes and credits

(1) Classes

Classes are divided into General Subjects and Specialized Subjects. Numbers of credits are set for each subject.

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

(2) Compulsory subjects and elective subjects

- 1) Compulsory subjects are the subjects that must be completed as a requirement of 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 lectures, exercises, experiments, practical or hands-on training, and they are offered individually or in combinations, and the standard is that it takes 45 hours of study to earn one credit. This is calculated in the following ways.

- (a) For lectures, 15 hours of class time and 30 hours of preparation and review for one credit.
- (b) For exercises, 30 hours of class time and 15 hours of preparation and review for one credit.
- (c) For experiments, practical or hands-on training, 45 hours of class time for 1 credit.

(4) Class times and class schedule.

The following are the class times.

Period	1	2	3	4	5	6
Time	8:50 am–	10:30 am-	1:00 pm-	2:40 pm	4:20 pm-	6:00 pm-
	10:20 am	12:00 (noon)	2:30 pm	4:10 pm	5:50 pm	7:30pm

The class schedule is posted on "KYOMU JOHO SYSTEM" at the beginning of each semester. Notification of changes to the class schedule is also posted.

Courses listed in the "Intensive" section of the class schedule are ones that are taught intensively at irregular times. Once the dates of intensive courses are decided, the information is posted.

(5) School term

A 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)

									2022.10
			Excluded	Credits	CI	asses/Week			
					1st g	ırade	2nd		
Compulsory	Subject Name	Class			Fall 1 Fall 2	Spring 1 Spring 2	grade	Instructor	noto
Elective	Subject Name	format	from GPA	Credits	2022.10	2023.4	2023.10		note
					-	-	-		
					2023.3	2023.9	2024.9		
Compulsory	Ethics for Researchers	Lecture		1	1		(0.5)		
Compared y	Ethios for resourcitors	Lootaro		<u> </u>	·		(0.0)		
	Culture and Communication I	Lecture		2					
					4			0 1 1:	
	Culture and Communication II	Lecture		2	1			S. Iwauchi	
Floorii vo	Principles of Japanese Conversation	Lecture		2		1	(1)	Y. Muramatsu	
Elective	Principles of Japanese Grammar	Lecture		2	1		(1)	J. Ishige	
								-	
	Japanese Life Today	Lecture		2		1	(1)		*
	Japanese Industrial Technologies and Innovations	Lecture		2	1		(1)		283.

[%]JICA Trainees have to register for the 2 subjects: "Japanese Life Today" and

- ♦ Those subjects whose numbers marked with "()" will be held every year.
- ♦ "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).

[&]quot;Japanese Industrial Technologies and Innovations" and are required to earn these academic credits.

Compulsory Subject Name Class format Excluded from GPA Credits Excluded from GPA Credits Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Excluded from GPA Exc	sor	no
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Subject Name	sor	no
2022.10 2023.4 2023.10 2023.4 2023.10 2023.9 2024.9		
Seminar on Mechanical Engineering I Exercise O 4 4 4 Supervice Seminar on Mechanical Engineering II Exercise O 2 2 Supervice Thesis Research on Mechanical Experiment O 6 9 Supervice Vibration Engineering Lecture 1 0.5 S. Kaw Applied Mechanics of Materials Lecture 1 1 T. Adactors Computed National Experiment O 5 S. Kaw Applied Mechanics of Materials Lecture 1 T. Adactors Computed National Experiment O 5 S. Kaw Applied Mechanics of Materials Lecture 1 T. Adactors Computed National Experiment O 5 S. Kaw Applied Mechanics of Materials Lecture 1 T. Adactors Computed National Experiment O 5 S. Kaw Applied Mechanics O 6 Materials Lecture 1 T. Adactors Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied Mechanics O Materials Computed National Experiment O 5 S. Kaw Applied National Experiment O		
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Compulsory Seminar on Mechanical Engineering II Exercise O 2 2 Supervious Thesis Research on Mechanical Engineering Experiment O 6 9 Supervious Vibration Engineering Lecture 1 0.5 S. Kaw Applied Mechanics of Materials Lecture 1 1 T. Adaction		
Thesis Research on Mechanical Experiment O 6 9 Supervised	sor	
Engineering		
Applied Mechanics of Materials Lecture 1 1 1 T. Adac	sor	
	amura	
Micromachining Engineering Lecture 1 0.5 T. Shib.	:hi	
	ata	
Microsystems Engineering Lecture 1 0.5 M. Nag	ai	
Microstructural Control of Metallic Lecture 1 0.5 H. Miur	a	
Materials Microstructure and Properties of		
Structural Materials		
Advanced Characterization in Materials Lecture 1 1 1 M. Kob	ayashi	
Modern Control Engineering Lecture 1 0.5 K. Taka	gi	
Precision Mechatronics Lecture 1 1 K. Sato		
Robot Kinematics Lecture 1 1 1 N. Uchi	yama	
Advanced Agricultural Engineering Lecture 1 0.5 K. Taka	iyama	
Advanced Aeroacoustics Lecture 1 1 1 A. lida		
Combustion Theory Lecture 1 0.5 Y. Nake	amura	
, in the second		
Microscale Transport Phenomena Lecture 1 1 1 K. Doi	ata	
M. Nag		
XAdvanced Mechanical Systems Lecture 2 1 S. Kaw. M.Mats		
Design I \ \ \ \ T. Adac	:hi	
Y. Take Y. Abe		
T. Shib.		
X-Advanced Mechanical Systems	amura	
Elective Design II Lecture 2 1 (1) M.Mats		
Y. Take Y. Abe		
Y. Toda		
XAdvanced Materials and Lecture 2 1 H. Miur		
Manufacturing Process I Lecture 2 1 (1) M. Izak S. Yoko		
l I I I I I I I I I I I I I I I I I I I	i	
Y. Toda H. Miur		
%Advanced Materials and Lecture 2 1 (1) M. Kob	ayashi	
S. Yoko		
K. Sato S. Sano		
**Advanced System, Control and Lecture 2 1 (4) K. Taka	iyama	
Robotics I Lecture 2 N. Uchi		
J. Taka	hashi	
S. Sand)	
XAdvanced System, Control and Robotics II Lecture 2 1 (1) K. Taka N. Uchi		
K. Taka	igi	
J. Taka	amura	
Y. Nake T. Mats K. Doi	uoka	
*Advanced Energy and Environmental Lecture 2 1 (1) T. Suzu	ıki	
Engineering I Eecture 2	shita	
H. Yana	ada	
H. Yoko	mura	
T. Mats	uoka	
%Advanced Energy and Environmental Lecture 2 1 (1) T. Suzu	ıki	
I Liminocillu II	shita	
A. lida N. Seki		

- ◆ Those subjects whose numbers marked with "()" will be held every year.
- ◆ "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).

									2022.1
					Classes/Week				
						grade	2nd		
Compulsory			Excluded		Fall 1 Fall 2	Spring 1 Spring 2	grade		
/ Elective	Subject Name	Class format	from GPA	Credits	2022.10	2023.4	2023.10	Instructor	note
					- 2023.3	- 2023.9	- 2024.9		
	Seminar on Electrical and Electronic Information Engineering 1A	Exercise	0	4		4		Supervisor	
Compulsory	Seminar on Electrical and Electronic Information Engineering 1B	Exercise	0	2			2	Supervisor	
	Thesis Research on Electrical and Electronic Information Engineering	Experiment	0	6		9		Supervisor	
	I I I I I I I I I I I I I I I I I I I					I		H. Uchida	
	Material Science for Electronics 1	Lecture		2	1			T. Yatsui Y. Nakamura G. Kawamura	
								H. Uchida	
								T. Yatsui	
	Material Science for Electronics 2	Lecture		2			1	Y. Nakamura	
								G. Kawamura	
								A. Matsuda	
	Physics for Electronics 1	Lecture		2		1		T. Hattori	
								R. Kato	
								A. Matsuda	
	Physics for Electronics 2	Lecture		2			1	T. Hattori	
	I hydroc for Electronics E	Lociuic		_			·	R. Kato	
	Electrical Energy Systems 1	Lecture						N. Hozumi	
				2	1			H. Takikawa	
	Electrical Energy Systems 2	Lecture		2			1	H. Takikawa	
								R. Inada	
	Electrical Technology and Materials 1	Lecture		2		1		Y. Murakami	
		Lootaro		_				T. Harigai	
								-	-
		Lecture						R. Inada	
Elective	Electrical Technology and Materials 2			2			1	Y. Murakami T. Harigai	
Licotivo								T. Hallyal	
		Lecture		2				T. Kawana	
	Semiconductor Physics 1				1			T. Kawano K. Takahashi	
	Semiconductor Physics 2	Lecture		2			1	T. Kawano	
								K. Takahashi	
								K. Sawada	
	I CI Process 4	Lecture		2		1		Y. Ishikawa	
	LSI Process 1	Lecture				'		H. Sekiguchi	
								T. Noda	
								K. Sawada Y. Ishikawa	
	LSI Process 2	Lecture		2			1	Y. isnikawa H. Sekiguchi	
								T. Noda	
	Information and Communication Technology	Lecture		2		1		H. Uehara	
	1	Lecture				'		K. Takeuchi	
	Information and Communication Technology	Lecture		2			1	H. Uehara	
	2			-				K. Takeuchi S. Ichikawa	-
	Advanced Electronic Information System 1	Lecture		2	1			S. icnikawa M. Tamura	
					<u> </u>			X. Shao	
	Advanced Floring 1.1.5							S. Ichikawa	
	Advanced Electronic Information System 2	Lecture		2			1	M. Tamura X. Shao	
	Methodology of R & D 1	Lecture		2	1		(1)	Supervisor	
	Methodology of R & D 2	Lecture		2		1	(1)	Supervisor	
	Wichiodology of IN & D Z	Leciule				'	(1)	Cupei visui	

[♦] Please ask your supervisor the availability of the class before registration.

[◆] Those subjects whose numbers marked with "()" will be held every year.

		ı									2022.10
					Classes/Week						
1							rade		2nd		
Compulsory		Class	Excluded from GPA	Credit	Fall 1	Fall 2	Spring 1	Spring 2	grade		
/ Elective	Subject Name	format		s			2023.10	Instructor	note		
					202	23.3	202	23.9	2024.9		
	Seminar on Computer Science and Engineering I	Exercise	0	4		4	4			Supervisor	
Compulsory	Seminar on Computer Science and Engineering II	Exercise	0	2					2	Supervisor	
	Thesis Research on Computer Science and Engineering	Experiment	0	6			9			Supervisor	
	Data Science and Analysis 1	Lecture		1	1				(0.5)	T. Akiba	
	Data Science and Analysis 2	Lecture		1		1			(0.5)	M. Aono	
	Networking, Advanced 1	Lecture		1					0.5	K. Umemura	
	Networking, Advanced 2	Lecture		1					0.5	R. Ohmura	
	Robotic Perception and Human-Robot Interaction 1	Lecture		1	1				(0.5)	J. Miura	
	Robotic Perception and Human-Robot Interaction 2	Lecture		1		1			(0.5)	N. Ohshima R. Ohmura	
	3D Vision Computation 1	Lecture		1	1				(0.5)	Y. Kanazawa	
	3D Vision Computation 2	Lecture		1		1			(0.5)	Y. Sugaya	
Elective	Algorithm Engineering, Advanced	Lecture		1	1					T. Fujito	
Liodavo	Molecular Simulation 1	Lecture		1					0.5	N. Kurita	
	Molecular Simulation 2	Lecture		1					0.5	H. Goto	
	Computational Intelligence in Brain System	Lecture		1			1		(0.5)	K. Murakoshi	
	Human Sensation and Perception 1	Lecture		1	1				(0.5)	S. Nakauchi	
	Human Sensation and Perception 2	Lecture		1		1			(0.5)	K. Koida	
	Information Security	Lecture		1				1		K. Suzuki	
	Statistical Machine Learning Theory	Lecture		1					0.5	K. Watanabe	
	X Reality and Psychology 1	Lecture		1	1				(0.5)	M. Kitazaki	
	X Reality and Psychology 2	Lecture		1		1			(0.5)	T. Minami	

 $[\]spadesuit$ Those subjects whose numbers marked with "()" will be held every year.

^{♦ &}quot;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).

					Classes/Week					2022.10
							rade	2nd		
Compulsory /	Subject Name	Class	Excluded	Credits	Fall 1	Fall 2	Spring 1 Spring 2	grade	Instructor	note
Elective		format	from GPA		202	2.10	2023.4	2023.10		
					2023.3 2023.9		2024.9			
	Seminar on Applied Chemistry and Life Science	Exercise	0	3	3			Supervisor		
Compulsory	Seminar on Applied Chemistry and Life Science 2	Exercise	0	3				3	Supervisor	
	Thesis Research on Applied Chemistry and Life Science	Experiment	0	6			9		Supervisor	
	Advanced Separation Chemistry	Lecture		1	1				Y. Saito	
	X-ray Spectroscopy for Catalytic Engineering	Lecture		1				0.5	T. Mizushima	
	Applied Physical Chemistry	Lecture		1		1			A. Matsumoto	
	Advanced Polymer Chemistry	Lecture		1				0.5	N. Haraguchi	
	Advanced Polymer Engineering	Lecture		1				0.5	E. Yoshida	
	Special Topics in Applied Organic Chemistry	Lecture		1			1		K. Shibatomi	
	Developmental Neuroscience	Lecture		1				0.5	S. Yoshida	
	Advanced Molecular Life Science	Lecture		1	1				T. Tanaka	
	Advanced Genomics	Lecture		1		1			T. Eki	
	Advanced Reactive Plasma	Lecture		1			1		K. Takashima	
	Advanced Biomaterials Engineering	Lecture		1			1	(0.5)	H. Tsuji R. Tero	
	Advanced Reaction Engineering	Lecture		1				0.5	T. Oguchi	
Elective	Advanced Supercritical Fluid Engineering	Lecture		1			1		H. Daimon	
	Applied Environmental Biology	Lecture		1				0.5	A. Nakabachi	
	Photobiology	Lecture		1				0.5	Y. Hirose	
	Advanced Molecular Design Chemistry 1	Lecture		2		1		(1)	A. Matsumoto Y. Saito E. Yoshida	
	Advanced Molecular Design Chemistry 2	Lecture		2			1	(1)	N.Haraguchi S. Ariyoshi	
	※ Advanced Molecular Functional Chemistry 1	Lecture		2		1			H. Tsuji T. Mizushima T. Oguchi	
	※ Advanced Molecular Functional Chemistry 2	Lecture		2			1		K. Shibatomi H. Daimon	
	Advanced Molecular Biological Chemistry 1	Lecture		2		1			T. Eki K. Takashima T. Tanaka R. Tero H. Kurita	
	Advanced Molecular Biological Chemistry 2	Lecture		2			1	(1)	Y. Hirose S. Yoshida R. Numano J. Nakabachi	

 $[\]bullet \ \mathsf{Up} \ \mathsf{to} \ \mathsf{two} \ \mathsf{subjects} \ \mathsf{marked} \ \mathsf{with} \ \ \ \ \ \mathsf{xan} \ \mathsf{be} \ \mathsf{acquired} \ \mathsf{from} \ \mathsf{courses} \ \mathsf{taught} \ \mathsf{by} \ \mathsf{your} \ \mathsf{supervisor}. \ \mathsf{Consult} \ \mathsf{your} \ \mathsf{supervisor} \ \mathsf{about} \ \mathsf{details}.$

 $[\]blacklozenge$ Those subjects whose numbers marked with "()" will be held every year.

^{◆ &}quot;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).

	1	ı					1	2022.10	
			1			asses/Week	·	-	
Compulsory			Excluded			grade Spring 1 Spring 2	2nd grade		
/	Subject Name	Class format	from	Credits				Instructor	note
Elective		ioiiiat	GPA		2022.10	2023.4	2023.10		
					2023.3	2023.9	2024.9		
	Seminar on Architecture and Civil	Exercise	0	3		3		Supervisor	
	Engineering I	LXCICISC						Ouper visor	
Compulsory	Seminar on Architecture and Civil Engineering II	Exercise	0	3			3	Supervisor	
	Thesis Research on Architecture and Civil Engineering	Experiment	0	6		9	I	Supervisor	
	Elasticity and Stability	Lecture		2			1	Y. Matsumoto	
	Finite Element Method for Continua and Bar Structures	Lecture		2	1			S. Nakazawa	
	Seismic Evaluation of Existing Buildings	Lecture		2			1	T. Matsui	
	Seismic Design of Structures	Lecture		2	1		(1)	T. Saito	
	Geotechnical Analysis	Lecture		2	1			K. Miura	
	Geohazards	Lecture		2			1	T. Matsuda	
	Building Science: Indoor Air Quality and Ventilation	Lecture		2			1	M. Tajima Y. Shimazaki	
	Building science: Thermal Environment and vernacular architecture	Lecture		2		1		M. Tajima Y. Shimazaki	
	Coastal Hydraulics	Lecture		2			1	S. Kato	
	Water Environment Engineering	Lecture		2		1	(1)	T. Inoue K. Yokota	
	Environmental Control in Biology	Lecture		2			1	T. Tokairin	
	Advanced Study on Housing System and Housing Policy	Lecture		2				S. Matsushima	
Elective	Advanced Urban Planning	Lecture		2			1	J. Asano H. Ono	
	Advanced Architectural Design	Lecture		2			1	A. Mizutani	
	Advanced Transportation and Urban Planning	Lecture		2			1	N. Sugiki	
	Advanced Computational Economics	Lecture		2			1	H. Shibusawa	
	Advanced Transportation Engineering	Lecture		2	1			K. Matsuo	
	Advanced Structural System Planning and Design I	Lecture		2	1		(1)	T. Saito S. Nakazawa K. Miura	
	Advanced Structural System Planning and Design II	Lecture		2		1	(1)	T. Matsui Y. Matsumoto T. Matsuda	
	Advanced Environmental System Planning and Design I	Lecture		2	1		(1)	M. Tajima T. Inoue S. Kato	
	Advanced Environmental System Planning and Design II	Lecture		2		1	(1)	Y. Shimazaki K. Yokota T. Tokairin	
	Advanced Regional System Planning and Design I	Lecture		2	1		(1)	S. Matsushima J. Asano H. Shibusawa	
	Advanced Regional System Planning and Design II	Lecture		2		1	(1)	A. Mizutani H. Ono N. Sugiki K. Matsuo	

[♦] Up to two subjects marked with ※ can be acquired from courses taught by your supervisor. Consult your supervisor about details.

[♦] Those subjects whose numbers marked with "()" will be held every year.

Twinning Program Double Degree Program Imaging and Light in Extended Reality Program Course Requirement Guide Book

(October 2022)

International Master's Degree Program



I Requirements for completion

1. Requirements for completion

To complete the master's course, a student must participate in the course for two or more years, and must acquire the minimum credits required as follows. A student must carry out a research program under proper guidance by faculty members. In addition, a student must submit a master's thesis, and must pass a review and final examination.

Classification	Required credits for completion	Remarks
General subjects	6	
Specialized subjects		
Mechanical Engineering	24	
Electrical and Electronic Information Engineering	24	
Computer Science and Engineering	24	
Applied Chemistry and Life Science	24	
Architecture and Civil Engineering	24	
Grand total	30	

For students in the Twinning Program and also the Double Degree Program, up to 15 credits that the students had acquired at their home university before coming to TUT can be transferred to TUT Master's Program only if TUT admits after being examined. Those 15 credits shall be determined by TUT's criteria. However, credit transfer for compulsory courses will not be accepted.

2. Application for degree

Only a student who has earned the credits required for completion, or who is expected to earn the required credits can apply for the master's degree. Degree application and procedures for submission of a thesis for a master's degree shall be posted on a bulletin board before the submission period.

II Class registration, examination, and attendance period

1. Class registration method

Classes shall be registered according to the program schedule of the student's respective major.

(1) Making study plans

To make study plans, the student should read this Guide Book thoroughly, and follow the instructions and advice given during the orientation and by the supervisors.

The Course Schedule is provided at the beginning of each academic year. Schedules for intensive classes will be posted at "KYOMU JOHO SYSTEM" and on a bulletin board when the details are fixed.

(2) Class registration

Students must register for classes using "KYOMU JOHO SYSTEM" at the TUT website https://kyomu.office.tut.ac.jp/portal/

or by the form "Application for Subjects" during the designated period.

*Classes cannot be registered for nor withdrawn from after the designated registration period. Classes with no registration will not be accredited in any case.

NOTES

- 1) If the student does not attend the classes nor take the examinations, credits will not be given even if the registration is made.
- 2) A student cannot re-register for a subject once credits are given.
- 3) Only one subject can be registered for in a given time schedule. Note that this does not apply to intensive subjects.

(3) Confirming and amending the registration

To confirm or amend class registration, students should access "KYOMU JOHO SYSTEM", and follow the manuals instructions.

(4) Repeating classes

In principle, a student who has failed a subject with regular examinations or has not gained credits for some other reasons can take the same subject again in the next academic year. To repeat a subject, the student must register again.

2. Examination

Examinations include regular examinations and make-up examinations.

(1) Regular examination

In principle regular examinations shall be held during the set period at the end of each term.

All students are to check the examination schedule in the academic calendar at "KYOMU JOHO SYSTEM" or on the bulletin boards. Note that examinations may be held at any time found necessary by the subject instructor.

(2) Make-up examination

- 1) Make-up examinations shall be held only when a student cannot take the regular examination for one of the following reasons. The student must gain the approval of the subject instructor using the form "Request for a make-up examination".
 - a) Illness (doctor's medical certificate must be submitted)
 - b) Accidents, disaster (certificate must be submitted), or other special reason (a letter explaining the reason must be submitted)
- 2) "Request for a make-up examination" must be submitted to the Educational Affairs Division within one week from the final date of the regular examination.
- 3) If a student fails to take the make-up examination, further examinations will not be allowed.

(3) Recognition of Credits and Grading System

Course instructors recognize credits for courses based on the results of examinations, etc.

- ① Student performance is graded based on the following standards. S, A, B and C are passing grades while D is a failing grade. Credits are awarded to grade C and above.
 - S \cdots 90 to 100 points
 - A···80 to 89 points
 - $B \cdots 70$ to 79 points
 - C···60 to 69 points
 - D···59 points or less
- ② With the aim of making course grades internationally compatible, TUT has launched a Grade Point Average (GPA) system, providing a barometer to judge the overall performance of students, starting with students who entered TUT in academic year 2018. The objectives of the GPA system are to fairly grade performance and to enhance students' desire for study by calculating the point average as a barometer to indicate the state and results of students' academic performance.

Grade	Points	Description of Grade	Judgement	Grade Point
S	90 to 100 points	Excellent—Outstanding performance		4.0
Α	80 to 89 points	Good—Excellent performance	Pass	3.0
В	70 to 79 points	Satisfactory—Generally sound performance	Pass	2.0
С	60 to 69 Sufficient—Performance meeting the minimum points passing criteria			1.0
D	59 points or less	Failure	Failure	0.0
N	-	Course for credit recognition (not included in GPA)	Pass (Recognition)	N/A
Н	-	Abandoned course (Course the student abandoned by continuing to miss the class or no taking an examination without cancelling the registration)	Abandonment	0.0
K	-	Invalidated grade due to misconduct	Invalid	0.0

GPA is an average calculated by converting above letter grades to grade points (GP) ranging from 0.0 to 4.0, multiplying these grade points by the number of credits for each course, and then dividing the total grade points by the total amount of registered credits.

Note, however, that grades from the following courses cannot be used to calculate GPA. Such courses are marked with a hyphen in the GP column of the grade report.

- (1)Courses for which credits were earned on the basis of the credit exchange system conducted with other universities, graduate schools, etc.; courses that were registered at other universities or junior colleges while enrolled in TUT; and courses that were registered at universities, junior colleges or graduate schools in foreign countries (2)Courses for which credits were earned before entering TUT and were recognized for entering TUT.
- (2)Courses for which credits were earned before entering TUT and were recognized after entering TUT; courses that were registered at TUT, other universities or junior colleges before entering TUT; and courses registered at universities, junior colleges or graduate schools in foreign countries (including courses registered for as a credited auditor student)
- (3)Courses for which credits were earned through mid-course entry, interschool transfer, readmission, or studying abroad, and were subsequently recognized
- (4)Courses for which credits cannot be counted toward graduation requirements; and courses for which credits were earned through the system for advance registration to graduate school programs
- (5)Courses that are designated separately by each department (On-the-job Training (internships), Supervised Research, Seminars, experimental courses, and practical training courses)
- ③ Each student can check grades and GPA for recognized credits in the "KYOMU JOHO SYSTEM".

(4) System for appealing grades

Students who have concerns about their grades for a particular semester should inquire from the class instructor. If students have complaints regarding the instructor's response, they can submit an appeal. Students, however, cannot appeal the reason or basis for the grade.

Students should contact the Educational Affairs Division for details.

3. Maximum years of attendance and related matters

(1) Maximum years of attendance

A student may not be in the master's twinning course at the university for more than two years.

(2) Leave of absence

If a student cannot attend classes for two or more months consecutively due to illness or other special reasons, the student may submit the form "Request for leave of absence" to the Educational Affairs Division after getting approval from the supervisor, a member of the academic affairs committee, and their department head. Upon approval by the President, the student can take a leave of absence (maximum two years in total).

The period of this absence will not be counted in the "Maximum years of attendance" mentioned in paragraph (1) above.

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

To return to school before the approved period following the removal of cause of absence, the student must submit the form "Application for return to university" and obtain approval.

(3) Withdrawal

If a student wants to withdraw from the university, the student must submit the form "Application for withdrawal from university" to the Educational Affairs Division after getting the approval from the supervisor, a member of the academic affairs committee, and the department head. Upon approval by the President, the student can withdraw from the university.

Note that the tuition fee has to be paid in full even if the student withdraws in the middle of a term.

(4) Removal from the University

A student will be removed from the university for the following reason.

- 1) A student exceeds the period mentioned above in paragraph (1) "Maximum years of attendance".
- 2) A student cannot return to school after the period of absence mentioned above in paragraph (2) "Leave of absence".
- 3) A student dies, or disappears.
- 4) A student who has been approved for half exemption or postponement of admission fee payment and does not pay the admission fee by the designated date.
- 5) A student fails to pay the tuition and does not pay even after a warning.

4. Other matters

(1) Information about canceled or make-up classes

All students are requested to double-check their class schedules and other information using the following means:

	Location		information
TUT website	https://kyomu.office.tut.ac.jp/portal/Public/Boardspx	d/BoardList.a	Canceled or make-up classes
TUT website for mobile phones	https://kyomu.office.tut.ac.jp/mobile/Main.aspx *Mobile tagging by camera phones		Canceled or make-up classes

(2) Classes/exams when a STORM WARNING is announced.

If a Storm Warning (*Bo-fu Keiho*) is announced for Toyohashi city or the South-east area of the Mikawa region, TUT will deal with 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 will be on schedule.
- 3) If the Storm Warning is cleared between 7:00 am and 11:00 am, all classes will start from the 3rd period (*Classes in the 1st and 2nd period will be canceled).
- 4) If the Storm Warning continues after 11:00 am, all classes will be canceled.
- *All cancelled classes and examinations will be rescheduled.
- 5) Whether or not a storm warning is announced, classes may be canceled because of suspension of public transportation service or some similar occurrence, at the discretion of the Vice President for Educational Affairs.
- 6) If cancelled classes cannot be held on YOBIBI (optional extra day), and final exams, on the alternate exam day, a Saturday may be used as an alternate day for classes or exams.
- 7) The above shall not apply to remote classes.

(3) 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.

(4) Absence from classes

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

Absences will be dealt with at the discretion of subject instructors.

Reasons for Absence	Documents 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
Infectious diseases*	Medical certificate or medical expense receipts	Students inform the TUT Health Care Center (0532-44-6632) in addition to informing lecturers directly.

^{*}TUT may require suspension in order to prevent the spread of infection. Suspension orders will be notified by email from the TUT or KYOMU JOHO SYSTEM.

For student information about the new coronavirus, check the university website or the email from TUT.

III Curriculum

1. Classes and credits

(1) Classes

Classes are divided into General Subjects and Specialized Subjects. Numbers of credits are set for each subject.

For the subjects to be offered, see the following pages.

See the web syllabus for the details of each subject.

(2) Compulsory subjects and elective subjects

- 1) Compulsory subjects are the subjects that must be completed as a requirement of 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 lectures, exercises, experiments, practical or hands-on training, and they are offered individually or in combinations, and the standard is that it takes 45 hours of study to earn one credit. This is calculated in the following ways.

- (a) For lectures, 15 hours of class time and 30 hours of preparation and review for one credit.
- (b) For exercises, 30 hours of class time and 15 hours of preparation and review for one credit.
- (c) For experiments, practical or hands-on training, 45 hours of class time for 1 credit.

(4) Class times and class schedule.

The following are the class times.

Period	1	2	3	4	5	6
Timo	8:50 am-	10:30 am-	1:00 pm-	2:40 pm	4:20 pm-	6:00 pm-
Time	10:20 am	12:00 (noon)	2:30 pm	4:10 pm	5:50 pm	7:30 pm

The class schedule is posted on "KYOMU JOHO SYSTEM" at the beginning of each semester. Notification of changes to the class schedule is also posted.

Courses listed in the "Intensive" section of the class schedule are ones that are taught intensively at irregular times. Once the dates of intensive courses are decided, the information is posted.

(5) School term

A 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)

General subjects (Twinning Program Double Degree Program)

2022.10

Camanulaanu			Excluded from GPA		Classe	s/Week		
Compulsory /	Subject Name	Class			Fall	Spring	Instructor	note
Elective	,	format			2022.10	2023.4		
					2023.3	- 2023.9		
Compulsory	Ethics for Researchers	Lecture		1	1			
	Culture and Communication I	Lecture		2				
	Culture and Communication II	Lecture		2	1		S. Iwauchi	
Elective	Principles of Japanese Conversation	Lecture		2		1	Y. Muramatsu	
Liective	Principles of Japanese Grammar	Lecture		2	1		J. Ishige	
	Japanese Life Today	Lecture		2		1		
	Japanese Industrial Technologies and Innovations	Lecture		2	1			

								022.10
			Classes/Week					
					2n	d grade	Ī	
Compulsory		Class	Excluded		Fall 1 Fall 2	Spring 1 Spring 2	[
/ Elective	Subject Name	Class format	from GPA	Credits	2022.10	2023.4	Instructor	note
					2023.3	- 2023.9		
0	Seminar on Mechanical Engineering	Exercise	0	6		6	Supervisor	
Compulsory	Thesis Research on Mechanical Engineering	Experiment	0	6		9	Supervisor	
	Vibration Engineering	Lecture		1			S. Kawamura	
	Applied Mechanics of Materials	Lecture		1		1	T. Adachi	
	Micromachining Engineering	Lecture		1			T. Shibata	
	Microsystems Engineering	Lecture		1			M. Nagai	
	Microstructural Control of Metallic Materials	Lecture		1			H. Miura	
	Microstructure and Properties of Structural Materials	Lecture		1		1	Y. Todaka	
	Advanced Characterization in Materials	Lecture		1	1		M. Kobayashi	
	Modern Control Engineering	Lecture		1			K.Takagi	
	Precision Mechatronics	Lecture		1		1	K. Sato	
	Robot Kinematics	Lecture		1	1		N. Uchiyama	
	Advanced Agricultural Engineering	Lecture		1			K. Takayama	
	Advanced Aeroacoustics	Lecture		1	1		A. lida	
	Combustion Theory	Lecture		1			Y. Nakamura	
	Microscale Transport Phenomena	Lecture		1	1		K. Doi	
							T. Shibata M. Nagai S. Kawamura	
	※Advanced Mechanical Systems Design I	Lecture		2	1		M.Matsuhara T. Adachi	
							Y. Takeichi Y. Abe	
							T. Shibata M. Nagai	
Elective	Advanced Mechanical Systems Design II	Lecture		2		1	S. Kawamura M.Matsuhara	
							T. Adachi Y. Takeichi Y. Abe	
					:		Y. Todaka H. Miura	
	Advanced Materials and Manufacturing Process I	Lecture		2	1		M. Kobayashi M. Izaki	
							S. Yokoyama T. Yasui	
	Advanced Materials and Manufacturing	Lastura		2		1	Y. Todaka H. Miura	
	Process II	Lecture		2		1	M. Kobayashi S. Yokoyama T. Yasui	
							K. Sato S. Sano	
	**Advanced System, Control and Robotics I	Lecture		2	1		K. Takayama N. Uchiyama	
							K. Takagi J. Takahashi	
							K. Sato S. Sano	
	%Advanced System, Control and Robotics II	Lecture		2		1	K. Takayama N. Uchiyama K. Takagi	
							J. Takahashi Y. Nakamura	
							T. Matsuoka K. Doi	
	Advanced Energy and Environmental Engineering I	Lecture		2	1		T. Suzuki A. lida	
							N. Sekishita	
					;		H. Yanada H. Yokoyama	
							Y. Nakamura T. Matsuoka K. Doi	
	Advanced Energy and Environmental Engineering II	Lecture		2		1	T. Suzuki A. lida	
							N. Sekishita H. Yokoyama	
	▲ Up to two subjects marked with ※ can be ac	•				i		

[♦] Up to two subjects marked with ※ can be acquired from courses taught by your supervisor. Consult your supervisor about details.

	1							2022
						ses/Week		
Compulsory						d grade	4	
/	Subject Name	Class format	Excluded	Credits	Fall 1 Fall 2		Instructor	not
Elective	Cusject Hame	Glade Idilliat	from GPA	o. out.o	2022.10	2023.4		
	Out to the Florida de Affred de C				2023.3	2023.9		
Compulsory	Seminar on Electrical and Electronic Information Engineering	Exercise	0	6		6	Supervisor	
Compulsory	Thesis Research on Electrical and Electronic Information Engineering	Experiment	0	6		9	Supervisor	
	Material Science for Electronics 1	Lecture		2	1		H. Uchida T. Yatsui Y. Nakamura G. Kawamura	
	Material Science for Electronics 2	Lecture		2			H. Uchida T. Yatsui Y. Nakamura G. Kawamura	
	Physics for Electronics 1	Lecture		2		1	A. Matsuda T. Hattori R. Kato	
	Physics for Electronics 2	Lecture		2			A. Matsuda T. Hattori R. Kato	
	Electrical Energy Systems 1	Lecture		2	1		N. Hozumi H. Takikawa	
	Electrical Energy Systems 2	Lecture		2			N. Hozumi H. Takikawa	
	Electrical Technology and Materials 1	Lecture		2		1	R. Inada Y. Murakami T. Harigai	
Elective	Electrical Technology and Materials 2	Lecture		2			R. Inada Y. Murakami T. Harigai	
	Semiconductor Physics 1	Lecture		2	1		T. Kawano K. Takahashi	
	Semiconductor Physics 2	Lecture		2			T. Kawano K. Takahashi	
	LSI Process 1	Lecture		2		1	K. Sawada Y. Ishikawa H. Sekiguchi T. Noda	
	LSI Process 2	Lecture		2			K. Sawada Y. Ishikawa H. Sekiguchi T. Noda	
	Information and Communication Technology	Lecture		2		1	H. Uehara K. Takeuchi	
	Information and Communication Technology	Lecture		2			H. Uehara K. Takeuchi	
	Advanced Electronic Information System 1	Lecture		2	1		S. Ichikawa M. Tamura X. Shao	
	Advanced Electronic Information System 2	Lecture		2			S. Ichikawa M. Tamura X. Shao	
	Methodology of R & D 1	Lecture		2	1		Supervisor	
	Methodology of R & D 2	Lecture		2		1	Supervisor	

[♦] Please ask your supervisor the availability of the class before registration.

2022.10

									2	022.10
							es/Week			
						2nd	grade			
Compulsory		Class	Excluded		Fall 1	Fall 2	Spring 1	Spring 2		
1	Subject Name	format	from	Credits	202	2.10	20	23.4	Instructor	note
Elective		Iomat	GPA		202	2.10	20	23.4		
					202	23.3	20	23.9		
						-0.0				
	Seminar on Computer Science and	Exercise	0	6			6		Supervisor	
Compulsory	Engineering									
. ,	Thesis Research on Computer Science	Experiment	0	6			9		Supervisor	
	and Engineering		_			<u> </u>	T	1		
	Data Science and Analysis 1	Lecture		1	1				T. Akiba	
	,							<u> </u>		
	Data Science and Analysis 2	Lecture		1		1			M. Aono	
	,					 		 		
	Networking, Advanced 1	Lecture		1					K. Umemura	
	-					<u> </u>		<u> </u>		
	Networking, Advanced 2	Lecture		1					R. Ohmura	
	Debatic Descrition and House Debat									
	Robotic Perception and Human-Robot	Lecture		1	1				J. Miura	
	Interaction 1							 	N. Ohabima	
	Robotic Perception and Human-Robot	Lecture		1		1			N. Ohshima R. Ohmura	
	Interaction 2								R. Onmura	
	3D Vision Computation 1	Lecture		1	1				Y. Kanazawa	
	3D Vision Computation 2	Lecture		1		1			Y. Sugaya	
						 		 		
	Algorithm Engineering, Advanced	Lecture		1	1				T. Fujito	
Elective						<u> </u>		1		
	Molecular Simulation 1	Lecture		1					N. Kurita	
						<u> </u>		1		
	Molecular Simulation 2	Lecture		1					H. Goto	
	Computational Intelligence in Brain									
	System	Lecture		1			1		K. Murakoshi	
	•									
	Human Sensation and Perception 1	Lecture		1	1				S. Nakauchi	
				_					14 14 11	
	Human Sensation and Perception 2	Lecture		1		1			K. Koida	
	Information Consults	Lastina		4				4	I/ CI-:	
	Information Security	Lecture		1				1	K. Suzuki	
	Statistical Machine Learning Theory	Lecture		1			_		K. Watanabe	_
	Clausical Machine Learning Theory	Lecture		1					ix. vvatariabe	
	X Reality and Psychology 1	Lecture		1	1				M. Kitazaki	
	A reality and 1 Sychology 1	LCGIUIC		'	'				ινι. ΓλιταΖακί	
	X Reality and Psychology 2	Lecture		1		1			T. Minami	
	Troumy and r sychology 2	LCGIG		'		<u>'</u>			i. Williami	

			1	1						2022.10
							s/Week		┥ '	
Compulsory					Fall 1	Fall 2	grade	Spring 2	1	
/	Subject Name	Class	Excluded	Credits					Instructor	note
Elective		format	from GPA		202	2.10	20	23.4		
					202	- 23.3	20	- 23.9		
					202	3.3	20	25.9		
	Seminar on Applied Chemistry and Life	Exercise	0	6			6		Supervisor	
Compulsory	Science									
	Thesis Research on Applied Chemistry and	Experiment	0	6			9		Supervisor	
	Life Science	'					1		'	
	Advanced Separation Chemistry	Lecture		1	1				Y. Saito	
	Y as Constant of Control Ex			-						
	X-ray Spectroscopy for Catalytic Engineering	Lecture		1					T. Mizushima	
	Lingineering									
	Applied Physical Chemistry	Lecture		1		1			A. Matsumoto	
	Advanced Polymer Chemistry	Lecture		1					N. Haraguchi	
	Advanced Polymer Engineering	Lecture		1					E. Yoshida	
	O int To - in - in A Ii - d O in O int I	Last as							K Obilesteed	
	Special Topics in Applied Organic Chemistry	Lecture		1			1		K. Shibatomi	
	Developmental Newsoniana	Lastina		4					O Vashida	
	Developmental Neuroscience	Lecture		1					S. Yoshida	
	Advanced Malacular Life Coinnes	Looturo		4	1				T. Tanaka	
	Advanced Molecular Life Science	Lecture		1	1				i. ianaka	
	Advanced Genomics	Lecture		1		1			T. Eki	
	Advanced Genomics	Lecture		'		'			I. LN	
	Advanced Reactive Plasma	Lecture		1				1	K. Takashima	
	Advanced Reactive Flashia	Lecture		'				<u>'</u>	IX. Takasiiiila	
	Advanced Biomaterials Engineering	Lecture		1				1	H. Tsuji	
	/ taraniosa pioniatoniaio Engineening	2001010		·				<u> </u>	R. Tero	
	Advanced Reaction Engineering	Lecture		1					T. Oguchi	
Elective	, , , , , , , , , , , , , , , , , , ,									
	Advanced Supercritical Fluid Engineering	Lecture		1				1	H. Daimon	
								 		
	Applied Environmental Biology	Lecture		1					A. Nakabachi	
	Photobiology	Lecture							Y. Hirose	
									A. Matsumoto	
	※ Advanced Molecular Design Chemistry 1	Lecture		2		1			Y. Saito	
								<u> </u>	E. Yoshida	
	※ Advanced Molecular Design Chemistry 2	Lecture		2				1	N.Haraguchi	
									S. Ariyoshi	
	※ Advanced Molecular Functional	1							H. Tsuji	
	Chemistry 1	Lecture	1	2		1			T. Mizushima	
	Advanced Molecular Functional		Ì						T. Oguchi K. Shibatomi	
	Chemistry 2	Lecture	1	2				1	H. Daimon	
	,		1					i i	T. Eki	
	Advanced Molecular Biological Chemistry								K. Takashima	
	1	Lecture	1	2	· ·	1			T. Tanaka	
									R. Tero	
									H. Kurita	
	※ Advanced Molecular Biological Chemistry								Y. Hirose S. Yoshida	
	2	Lecture		2				1	R. Numano	
									J. Nakabachi	

 $[\]blacklozenge \ \, \text{Up to two subjects marked with } \ \, \text{$\overset{\cdot}{\times}$ can be acquired from courses taught by your supervisor. Consult your supervisor about details.}$

								2022.10
						ses/Week d grade		
Compulsory		01	Excluded			Spring 1 Spring 2		
/ Elective	Subject Name	Class format	from	Credits	2022.10	2023.4	Instructor	note
Elective			GPA		- 2023.3	- 2023.9		
					2023.3	2023.9		
	Seminar on Architecture and Civil Engineering	Exercise	0	6		6	Supervisor	
Compulsory	Thesis Research on Architecture and Civil Engineering	Experiment	0	6		9	Supervisor	
	Elasticity and Stability	Lecture		2			Y. Matsumoto	
	Finite Element Method for Continua and Bar Structures	Lecture		2	1		S. Nakazawa	
	Seismic Evaluation of Existing Buildings	Lecture		2			T. Matsui	
	Seismic Design of Structures	Lecture		2	1		T. Saito	
	Geotechnical Analysis	Lecture		2	1		K. Miura	
	Geohazards	Lecture		2			T. Matsuda	
	Building Science: Indoor Air Quality and Ventilation	Lecture		2			M. Tajima Y. Shimazaki	
	Building science: Thermal Environment and vernacular architecture	Lecture		2		1	M. Tajima Y. Shimazaki	
	Coastal Hydraulics	Lecture		2			S. Kato	
	Water Environment Engineering	Lecture		2		1	T. Inoue K. Yokota	
	Environmental Control in Biology	Lecture		2			T. Tokairin	
	Advanced Study on Housing System and Housing Policy	Lecture		2			S. Matsushima	
Elective	Advanced Urban Planning	Lecture		2			J. Asano H. Ono	
	Advanced Architectual Design	Lecture		2			A. Mizutani	
	Advanced Transportation and Urban Planning	Lecture		2			N. Sugiki	
	Advanced Computational Economics	Lecture		2			H. Shibusawa	
	Advanced Transportation Engineering	Lecture		2	1		K. Matsuo	
	Advanced Structural System Planning and Design I	Lecture		2	1		T. Saito S. Nakazawa K. Miura	
	※ Advanced Structural System Planning and Design II	Lecture		2		1	T. Matsui Y. Matsumoto T. Matsuda	
	※ Advanced Environmental System Planning and Design I	Lecture		2	1		M. Tajima T. Inoue S. Kato	
	Advanced Environmental System Planning and Design II	Lecture		2		1	Y. Shimazaki K. Yokota T. Tokairin	
	※ Advanced Regional System Planning and Design I	Lecture		2	1		S. Matsusnima J. Asano H. Shibusawa	
	Advanced Regional System Planning and Design II	Lecture		2		1	A. Mizutani H. Ono N. Sugiki K. Matsuo	

[♦] Up to two subjects marked with ※ can be acquired from courses taught by your supervisor. Consult your supervisor about details.

Mechanical Engineering (Double Degree Program)

2022.10

					Classe	s/Week		2022.10	
Compulsory			Excluded		Fall 1 Fall 2	Spring 1 Spring 2			
/ Elective	Subject Name	Class format	from GPA	Credits	2022.10	2023.4	Instructor	note	
					2023.3	2023.9			
	Seminar on Mechanical Engineering I	Exercise	0	4	•	4			
Compulsory	Seminar on Mechanical Engineering II	Exercise	0	2	:	Supervisor			
Compulsory	Thesis Research on Mechanical Engineering	Experiment	0	6	(Supervisor			
	Internship	Experiment	0	_	1	12			
	Advances in Mechanical Design	Lecture		2			T. Adachi		
	Advances in Material Science and Manufacturing	Lecture		2			Y.Todaka M. Kobayashi		
Elective	Advances in Thermal and Fluid Mechanics	Lecture		2	1		A.Iida K.Doi		
	Advances in Systems, Control and Robotics	Lecture		2		2	K.Sato N. Uchiyama		
	Robotics	Lecture		2	1		N. Uchiyama		

										2022.10
						Class	es/Week			
						2nd	grade		1	
Compulsory		0.1	Excluded		Fall 1			Spring 2	1	
/	Subject Name	Class	from	Credits					Instructor	note
Elective		format	GPA	o. ounto	2022	2.10	20:	23.4	ou doto.	
Licotive			0171		-			-		
					202	3.3	20	23.9		
	Seminar on Computer Science and	Exercise	0	6			6		Supervisor	
Compulsory	Engineering		Ŭ	Ů					Gapo. 1.00.	
Compaisory	Thesis Research on Computer Science	Cum a sima a mt	0	6			9		Cumamiaan	
	and Engineering	Experiment		0	9			Supervisor		
•	Data Science and Analysis 1	Lecture		1	1				T. Akiba	
	Data Science and Analysis 2	Lecture		1		1			M. Aono	
								<u> </u>		
	Networking, Advanced 1	Lecture		1					K. Umemura	
	Interworking, Advanced 1	Lecture		'					N. Officiliula	
									D 01	
	Networking, Advanced 2	Lecture		1					R. Ohmura	
	Robotic Perception and Human-Robot									
	Interaction 1	Lecture		1	1				J. Miura	
	Robotic Perception and Human-Robot	Lecture		1		1			N. Ohshima	
	Interaction 2	Leotare							R. Ohmura	
		1							V 17	
	3D Vision Computation 1	Lecture		1	1				Y. Kanazawa	
								 		
	3D Vision Computation 2	Lecture		1		1			Y. Sugaya	
								 		
	Algorithm Engineering, Advanced	Lecture		1	1				T. Fujito	
Elective	3 1 3, 1 1 11								.,	
	Molecular Simulation 1	Lecture		1					N. Kurita	
	Iviolecular Simulation 1	Lecture		'					iv. Kuilla	
				_						
	Molecular Simulation 2	Lecture		1					H. Goto	
	Computational Intelligence in Brain							<u> </u>		
	System	Lecture		1			1		K. Murakoshi	
	System									
	Human Sensation and Perception 1	Lecture		1	1				S. Nakauchi	
	Transaction and Totophon 1	Looidio			,				O. Hanadoni	
	Lluman Canastian and Darsantian 2	Lastura		1		4			K. Koida	
	Human Sensation and Perception 2	Lecture		'		1			N. Nolua	
	Information Security	Lecture		1				1	K. Suzuki	
	Statistical Machine Learning Theory	Lecture		1					K. Watanabe	
								<u> </u>		
	X Reality and Psychology 1	Lecture		1	1				M. Kitazaki	
	A reality and respondings i	Locidic			<u> </u>			<u> </u>	Mazaki	
	V Deality and Daysh - I 0	l a atoma		4		4			T Mine:::	
	X Reality and Psychology 2	Lecture	1	1		1			T. Minami	

Compulsory / Elective	Subject Name	Class format	Excluded from GPA	Credits	Classes/Week			
					Fall	Spring	Instructor	note
					2022.10	2023.4		
					2023.3	2023.9		
Compulsory	Ethics for Researchers	Lecture		1	1			
	Japanese Communication Theory	Lecture		2	1		C. Ishikawa	
	Culture and Communication I	Lecture		2				
	Culture and Communication II	Lecture		2	1		S. Iwauchi	
	Japanese Life Today	Lecture		2		1		
	Japanese Industrial Technologies and Innovations	Lecture		2	1			

									2022.10	
	Subject Name	Class format	Excluded from GPA	Credits	Classes/Week					
Compulsory / Elective					2nd grade					
					Fall 1	Fall 2	Spring 1 Spring 2]		
					2022.10		2023.4	Instructor	note	
					20:	2023.3 2023.9				
Compulsory	Case Study in Imaging and Light and XR	Exercise	0	4	4			Supervisor	IMLEX Core Courses	
	Advanced Research Methods	Exercise	0	2	2		Supervisor		IMLEX Core Courses	
	Supervised Research in Computer Science and Engineering	Experiment	0	6			9	Supervisor	IMLEX Core Courses	
	Data Science and Analysis 1	Lecture		1	1			T. Akiba	IMLEX Core Courses	
	Data Science and Analysis 2	Lecture		1		1		M. Aono	IMLEX Core Courses	
Elective Required	Human Sensation and Perception 1	Lecture		1	1			S. Nakauchi	IMLEX Compulsory in Lighting Track	
	Human Sensation and Perception 2	Lecture		1		1		K. Koida	IMLEX Compulsory in Lighting Track	
	X Reality and Psychology 1	Lecture		1	1			M. Kitazaki	IMLEX Compulsory in Lighting Track	
	X Reality and Psychology 2	Lecture		1		1		T. Minami	IMLEX Compulsory in Lighting Track	
	3D Vision Computation 1	Lecture		1	1			Y. Kanazawa	IMLEX Compulsory in Computational Imaging Track	
	3D Vision Computation 2	Lecture		1		1		Y. Sugaya	IMLEX Compulsory in Computational Imaging Track	
	Robotic Perception and Human-Robot Interaction 1	Lecture		1	1			J. Miura	IMLEX Compulsory in Computational Imaging Track	
	Robotic Perception and Human-Robot Interaction 2	Lecture		1		1		N. Ohshima R. Ohmura	IMLEX Compulsory in Computational Imaging Track	

Course Requirement Guide Book

(October 2022)

International Doctoral Degree Program



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 obtain the minimum credits required as follows. A student must carry out a research program under proper guidance by faculty members. In addition, a student must submit a doctoral thesis, and must pass a review and final examination.

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

Classification	Required credits for completion	Remarks		
Mechanical Engineering	12	4 credits in total can be substituted with a combination of the following		
Electrical and Electronic Information Engineering	12	options , with permission from the student's supervisor. 1. Specialized subjects from International Master's Degree		
Computer Science and Engineering	12	Program (except for Advanced subjects) 2. Subjects of the other departments from International Doctoral Degree Program		
Applied Chemistry and Life Science	12	3. Subjects from doctoral program of student's own department held in Japanese (The same subject cannot be		
Architecture and Civil Engineering	12	taken in both Japanese and English)		

2. Application for degree

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

II Class registration, examination, and attendance period

1. Class registration method

Classes shall be registered according to the program schedule of the student's respective major.

(1) Making study plans

To make study plans, the student should read this Guide Book thoroughly, and follow the instructions and advice given during the orientation and by the supervisor.

The Course Schedule is provided at the beginning of each academic year. Schedules for intensive classes will be posted at "KYOMU JOHO SYSTEM" and on a bulletin board when the details are fixed.

(2) Class registration

Students must register for classes using "KYOMU JOHO SYSTEM" at the TUT website https://kyomu.office.tut.ac.jp/portal/

or by the form "Application for Subjects" during the designated period.

*Classes cannot be registered for nor withdrawn from after the designated registration period. Classes with no registration will not be accredited in any case.

NOTES

- 1) To take Specialized subjects from International Master's Degree Program (except for Advanced topics subjects), subjects from your own department held in Japanese, or other department's subjects from International Doctoral Degree Program, Students must obtain approval from their supervisor and the subject instructor with the form "Application for Registration in Subjects in Other Department".
- 2) If the student does not attend the classes nor take the examinations, credits will not be given even if the registration is made.
- 3) A student cannot re-register for a subject for which credits are given.
- 4) Only one subject can be registered for in a given time schedule. Note that this does not apply to intensive subjects.

(3) Confirming and amending the registration

To confirm or amend class registration, students should access "KYOMU JOHO SYSTEM", and follow the manuals instructions.

(4) Repeating classes

In principle, a student who has failed a subject with regular examinations or has not gained credits for some other reason can take the same subject again in the next academic year. To repeat a subject, the student must register again.

2. Examination

Examination includes regular examinations and make-up examinations.

(1) Regular examination

In principle regular examinations shall be held during the set period at the end of each term.

All students are to check the examination schedule in the academic calendar at "KYOMU JOHO SYSTEM" or on the bulletin boards. Note that examinations may be held at any time found necessary by the subject instructor.

(2) Make-up examination

- 1) Make-up examinations shall be held only when a student cannot take the regular examination for one of the following reasons. The student must gain the approval of the subject instructor using the form "Request for a make-up examination".
- a) Illness (doctor's medical certificate must be submitted)
- b) Accidents, disaster (certificate must be submitted), or other special reason (a letter explaining the reason must be submitted)
- 2) "Request for a make-up examination" must be submitted to the Academic Affairs Division within one week from the final date of the regular examination.
- 3) If a student fails to take the make-up examination, further examinations will not be allowed.

(3) Recognition of Credits and Grading System

Course instructors recognize credits for courses based on the results of examinations, etc.

- ① Student performance is graded based on the following standards. S, A, B and C are passing grades while D is a failing grade. Credits are awarded to grade C and above.
 - S \cdots 90 to 100 points
 - $A \cdots 80$ to 89 points
 - B···70 to 79 points
 - $C\cdots 60$ to 69 points
 - D···59 points or less
- With the aim of making course grades internationally compatible, TUT has launched a Grade Point Average (GPA) system, providing a barometer to judge the overall performance of students, starting with students who entered TUT in academic year 2018. The objectives of the GPA system are to fairly grade performance and to enhance students' desire for study by calculating the point average as a barometer to indicate the state and results of students' academic performance.

Grade	Points	Description of Grade	Judgement	Grade Point
S	90 to 100 points	Excellent—Outstanding performance		4.0
Α	80 to 89 points	Good—Excellent performance	Pass	3.0
В	70 to 79 points	Satisfactory—Generally sound performance	PdSS	2.0
С	60 to 69 Sufficient—Performance meeting the minimum points passing criteria			1.0
D	59 points or less	Failure	Failure	0.0
N	-	Course for credit recognition (not included in GPA)	Pass (Recognition)	N/A
Н	-	Abandoned course (Course the student abandoned by continuing to miss the class or no taking an examination without cancelling the registration)	Abandonment	0.0
K	-	Invalidated grade due to misconduct	Invalid	0.0

GPA is an average calculated by converting above letter grades to grade points (GP) ranging from 0.0 to 4.0, multiplying these grade points by the number of credits for each course, and then dividing the total grade points by the total amount of registered credits.

Note, however, that grades from the following courses cannot be used to calculate GPA. Such courses are marked with a hyphen in the GP column of the grade report.

- (1)Courses for which credits were earned on the basis of the credit exchange system conducted with other universities, graduate schools, etc.; courses that were registered at other universities or junior colleges while enrolled in TUT; and courses that were registered at universities, junior colleges or graduate schools in foreign countries
- (2)Courses for which credits were earned before entering TUT and were recognized after entering TUT; courses that were registered at TUT, other universities or junior colleges before entering TUT; and courses registered at universities, junior colleges or graduate schools in foreign countries (including courses registered for as a credited auditor student)
- (3)Courses for which credits were earned through mid-course entry, interschool transfer, readmission, or studying abroad, and were subsequently recognized
- (4)Courses for which credits cannot be counted toward graduation requirements; and courses for which credits were earned through the system for advance registration to graduate school programs
- (5)Courses that are designated separately by each department (On-the-job Training (internships), Supervised Research, Seminars, experimental courses, and practical training courses)
- 3 Each student can check grades and GPA for recognized credits in the "KYOMU JOHO SYSTEM".

(4) System for appealing grades

Students who have concerns about their grades for a particular semester should inquire from the class instructor. If students have complaints regarding the instructor's response, they can submit an appeal. Students, however, cannot appeal the reason or basis for the grade.

Students should contact the Educational Affairs Division for details.

3. Maximum years of attendance and related matters

(1) Maximum years of attendance

A student may not be in the doctoral course at the university for more than six years.

(2) Leave of absence

If a student cannot attend classes for two or more months consecutively due to illness or other special reasons, the student may submit the form "Request for leave of absence" to the Educational Affairs Division after getting approval from the supervisor, a member of the academic affairs committee, and their department head. Upon approval by the President, the student can take a leave of absence (maximum two years in total).

The period of this absence will not be counted in the "Maximum years of attendance" mentioned in paragraph (1) above.

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

To return to school before the approved period following the removal of the cause of absence, the student must submit the form "Application for return to university" and obtain approval.

(3) Withdrawal

If a student wants to withdraw from the university, the student must submit the form "Application for withdrawal from university" to the Educational Affairs Division after getting approval from the supervisor, a member of the academic affairs committee, and the department head. Upon approval by the President, the student can withdraw from the university.

Note that the tuition fee has to be paid in full even if the student withdraws in the middle of a term.

(4) Removal from the University

A student will be removed from the university for the following reason.

- 1) A student exceeds the period mentioned above in paragraph (1) "Maximum years of attendance".
- 2) A student cannot return to school after the period of absence mentioned above in paragraph (2) "Leave of absence".
- 3) A student dies, or disappears.
- 4) A student who has been approved for half exemption or postponement of admission fee payment and does not pay the admission fee by the designated date.
- 5) A student fails to pay the tuition and does not pay even after a warning.

4. Other matters

(1) Information about canceled or make-up classes

All students are requested to double-check their class schedules and other information using the following means:

	Location	information
TUT website	https://kyomu.office.tut.ac.jp/portal/Public/Board/BoardList.aspx	Canceled or make-up classes
TUT website for mobile phones	https://kyomu.office.tut.ac.jp/mobile/Main.aspx *Mobile tagging by camera phones	Canceled or make-up classes

(2) Classes/exams when a STORM WARNING is announced.

If a Storm Warning (*Bo-fu Keiho*) is announced for Toyohashi city or the South-east area of the Mikawa region, TUT will deal with 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 will be on schedule.
- 3) If the Storm Warning is cleared between 7:00 am and 11:00 am, all classes will start from the 3rd period (*Classes in the 1st and 2nd period will be canceled).
- 4) If the Storm Warning continues after 11:00 am, all classes will be canceled.
- *All cancelled classes and examinations will be rescheduled.
- 5) Whether or not a storm warning is announced, classes may be canceled because of suspension of public transportation service or some similar occurrence, at the discretion of the Vice President for Educational Affairs.
- 6) If cancelled classes cannot be held on YOBIBI (optional extra day), and final exams, on the alternate exam day, a Saturday may be used as an alternate day for classes or exams.
- 7) The above shall not apply to remote classes.

(3) 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.

(4) Absence from classes

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

Absences will be dealt with at the discretion of subject instructors.

Reasons for Absence	Documents 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
Infectious diseases*	Medical certificate or medical expense receipts	Students inform the TUT Health Care Center (0532-44-6632) in addition to informing lecturers directly

^{*}TUT may require suspension in order to prevent the spread of infection.

Suspension orders will be notified by email from TUT or KYOMU JOHO SYSTEM.

For student information about the new coronavirus, check the university website or the email from TUT.

III Curriculum

1. Classes and credits

(1) Classes

Classes in Doctoral program are only Specialized Subjects. Numbers of credits are set for each subject.

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

(2) Compulsory subjects and elective subjects

- 1) Compulsory subjects are the subjects that must be completed as a requirement of 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 lectures, exercises, experiments, practical or hands-on training, and they are offered individually or in combinations, and the standard is that it takes 45 hours of study to earn one credit. This is calculated in the following ways.

- (a) For lectures, 15 hours of class time and 30 hours of preparation and review for one credit.
- (b) For exercises, 30 hours of class time and 15 hours of preparation and review for one credit.
- (c) For experiments, practical or hands-on training, 45 hours of class time for 1 credit.

(4) Class times and class schedule.

The following are the class times.

Period	1	2	3	4	5	6
Timo	8:50 am-	10:30 am-	1:00 pm-	2:40 pm	4:20 pm-	6:00 pm-
Time	10:20 am	12:00 (noon)	2:30 pm	4:10 pm	5:50 pm	7:30 pm

The class schedule is posted on "KYOMU JOHO SYSTEM" at the beginning of each semester. Notification of changes to the class schedule is also posted.

Courses listed in the "Intensive" section of the class schedule are ones that are taught intensively at irregular times. Once the dates of intensive courses are decided, the information is posted.

(5) School term

A 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

(Doctoral Degree Program) 2022.10

Doctoral De	gree Program)									2022.1	
						1st grade		2nd grade	3rd grade		
Compulsory / Elective	Subject Name	Class format	Excluded from GPA	Credits Instructor		Fall 2022.10 -	Spring 2023.4	2023.10	2024.10	Note	
	Advanced Seminar on Mechanical		_			2023.3	2023.9	2024.9	2025.9		
	Engineering 1 Advanced Seminar on Mechanical	Exercise	0	4	Supervisor	4	4				
Compulsory	Engineering 2	Exercise	0	1	Supervisor			1			
	Seminar on Interdisciplinary Research	Exercise		1				1			
Elective Required	Ethics for Researchers	Lecture		1		1				※ 1	
	Advanced Mechanical Systems	Lecture		2	S. Kawamura T. Adachi Y. Takeichi M. Matsubara		1				
	Advanced Production Processes	Lecture			T. Shibata Y. Abe M. Nagai	1					
	Advanced Manufacturing Processes	Lecture		2	S. Yokoyama T. Yasui		1				
Elective	Advanced Materials Science	Lecture		2	H. Miura Y. Todaka M. Kobayashi	1					
Liosavo	Advanced Mechatronics	Lecture			K. Sato K. Takagi S. Sano		1				
	Advanced Systems and Instrumentation Engineering	Lecture		2	N. Uchiyama K. Takayama	1					
	Advanced Energy Engineering	Lecture			Y. Nakamura K. Doi T. Suzuki T. Matsuoka		1				
	Advanced Environmental Engineering	Lecture		2	A. lida N. Sekishita H. Yokoyama	1					

^{♦ &}quot;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).

^{%1} Students who have obtained the credit of this subject during Master's program must take another subject among subject in the doctoral program

Electrical and Electronic Information Engineering

(Doctoral Degree Program) 2022.10

Doctoral De	gree Program)									2022.
						1st g	ırade	2nd	3rd	
Compulsory	Class Excluded				Fall Spring		grade	grade		
/ Elective	Subject Name	format	from GPA	Credits	Instructor	2022.10	2023.4	2023.10	2024.10	Not
Liective						- 2023.3	- 2023.9	- 2024.9	- 2025.9	
	Seminar on Electrical and Electronic Information Engineering	Exercise	0	4	Supervisor		4	2024.9	2023.9	
Compulsory	Seminar on Electrical and Electronic Information Engineering 3	Exercise	0	1	Supervisor			1		
	Seminar on Interdisciplinary Research	Exercise		1				1		
Elective Required	Ethics for Researchers	Lecture		1		1				※ 1
	Advanced Electronic Materials 1	Lecture		2	H. Uchida T. Yatsui Y. Nakamura G. Kawamura		1			
	Advanced Electronic Materials 2	Lecture		2	A. Matsuda T. Hattori R. Kato	1				
	Advanced Electrical Systems 1	Lecture		2	N. Hozumi H. Takikawa	1				
	Advanced Electrical Systems 2	Lecture		2	R. Inada Y. Murakami		1			
Elective	Advanced Microelectronics 1	Lecture		2	K. Sawada Y. Ishikawa H. Sekiguchi T. Noda		1			
	Advanced Microelectronics 2	Lecture		2	T. Kawano K. Takahashi	1				
	Advanced Information and Communication Systems 1	Lecture		2	H. Uehara K. Takeuchi		1			
	Advanced Information and Communication Systems 2	Lecture		2	S. Ichikawa M. Tamura X. Shao	1				
	Methodology of R & D	Lecture		2	Supervisor	1				

[♦] Please ask your supervisor the availability of the class before registration.

^{♦ &}quot;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).

^{%1} Students who have obtained the credit of this subject during Master's program must take another subject among subject in the doctoral program

(Doctoral D	egree Program)											2022.1
							1st (grade		2nd	3rd	
0 1						Fall 1	Fall 2	Spring1	Spring2	grade	grade	
Compulsory / Elective	Subject Name	Class Excluded from GPA			Instructor		2.10 - 23.3		23.4 - 23.9	2023.10 - 2024.9	2024.10 - 2025.9	Note
	Seminar on Computer Science and Engineering 1	Exercise	0	4	Supervisor			4				
Compulsory	Seminar on Computer Science and Engineering 2	Exercise	0	1	Supervisor					1		
	Seminar on Interdisciplinary Research	Exercise		1						1		
Elective Required	Ethics for Researchers	Lecture		1		1						※ 1
	Advanced Data Science and Analysis 1	Lecture		1	T. Akiba	1				(0.5)		
	Advanced Data Science and Analysis 2	Lecture		1	M. Aono		1			(0.5)		
	Computer Network Engineering 1	Lecture		1	K. Umemura					0.5		
	Computer Network Engineering 2	Lecture		1	R. Ohmura					0.5		
	Advanced Robotic Perception and Human-Robot Interaction 1	Lecture		1	J. Miura	1				(0.5)		
	Advanced Robotic Perception and Human-Robot Interaction 2	Lecture		1	N. Ohshima R. Ohmura		1			(0.5)		
	Advanced 3D Vision Computation 1	Lecture		1	Y. Kanazawa	1				(0.5)		
	Advanced 3D Vision Computation 2	Lecture		1	Y. Sugaya		1			(0.5)		
Elective	Theoretical Computer Science, Advanced	Lecture		1	T. Fujito	1						
Licotive	Advanced Molecular Simulation 1	Lecture		1	N. Kurita					0.5		
	Advanced Molecular Simulation 2	Lecture		1	H. Goto					0.5		
	Advanced Computational Intelligence in Brain System	Lecture		1	K. Murakoshi			1		(0.5)		
	Advanced Human Sensation and Perception 1	Lecture		1	S. Nakauchi	1				(0.5)		
	Advanced Human Sensation and Perception 2	Lecture		1	K. Koida		1			(0.5)		
	Information Security, Advanced	Lecture		1	K. Suzuki				1			
	Advanced Statistical Machine Learning Theory	Lecture		1	K. Watanabe					0.5		
	Advanced X Reality and Psychology 1	Lecture		1	M. Kitazaki	1				(0.5)		
	Advanced X Reality and Psychology 2	Lecture		1	T. Minami		1			(0.5)		
	0						-		•			

[♦] Those subjects whose numbers marked with "()" will be held every year.

^{• &}quot;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).

lopha1 Students who have obtained the credit of this subject during Master's program must take another subject among subject in the doctoral program

(Doctoral I	Degree Program)								20	22.10
Ì	,						grade	2nd	3rd	
Compulacry						Fall	Spring	grade	grade	
Compulsory / Elective	Subject Name	Class format	Excluded from GPA	Credits	Instructor	2022.10	2023.4	2023.10	2024.10	Note
						2023.3 2023.9 2024.9	2024.9	2025.9		
	Seminar on Applied Chemistry and Life Science 1	Exercise	0	4	Supervisor		4			
Compulsory	Seminar on Applied Chemistry and Life Science 2	Exercise	0	1	Supervisor			1		
	Seminar on Interdisciplinary Research	Exercise		1				1		
Elective Required	Ethics for Researchers	Lecture		1		1				<u></u> %1
	Advanced Chemical Technology	Lecture		2	A. Matsumoto T. Mizushima T. Oguchi K. Takashima	1				
	Advanced Ecological Engineering	Lecture		2	H. Nakano H. Daimon		1			
Elective	Advanced Biotechnology 1	Lecture		2	T. Eki T. Tanaka A. Nakabachi		1			
Lissaive	Advanced Biotechnology 2	Lecture		2	E. Yoshida Y. Hirose S. Yoshida	1				
	Advanced Molecular Function Chemistry 1	Lecture		2	K. Shibatomi N. Haraguchi		1			
	Advanced Molecular Function Chemistry 2	Lecture		2	H. Tsuji Y. Saito R. Tero	1				

Architecture and Civil Engineering

(Doctoral Degree Program) 2022.10 1st grade 2nd 3rd grade grade Fall Spring Compulsory Class Excluded Credits Instructor Subject Name 2022.10 2023.4 2024.10 Note 2023.10 format from GPA Elective 2023.3 2023.9 2024.9 2025.9 Seminar on Architecture and Civil Exercise 0 4 Supervisor 4 Engineering 1 Seminar on Architecture and Civil Compulsory Exercise 0 Supervisor 1 1 Seminar on Interdisciplinary Research Exercise 1 1 Elective Ethics for Researchers 1 Lecture 1 Required **※**1 Advanced Mechanics and Design of S. Nakazawa 2 1 Lecture Y. Matsumoto Spatial Structure Systems T. Saito Advanced Structural Design Lecture 2 1 T. Matsui Advanced Building Environmental M. Tajima 2 1 Lecture Engineering and Building Services Y. Shimazaki S. Matsushima Advanced Theory in Architectural Design Lecture 2 1 A. Mizutani J. Asano Elective Sustainable Urban Planning Lecture 2 1 H. Ono Advanced Geologic Hazard Mitigation K. Miura Lecture 2 1 Planning T. Matsuda T. Inoue Advanced Water Environmental 2 Lecture S. Kato 1 Engineering K. Yokota Advanced Environmental Control in Lecture 2 T. Tokairin 1 Biology H. Shibusawa Advanced Transportation Systems and Lecture 2 N. Sugiki 1 Economics K. Matsuo

X1 Students who have obtained the credit of this subject during Master's program must take another subject among subject in the doctoral program

Double Degree Program Course Requirement Guide Book

(October 2022)

International Doctoral Degree Program



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 obtain the minimum credits required as follows. A student must carry out a research program under proper guidance by faculty members. In addition, a student must submit a doctoral thesis, and must pass a review and final examination.

Classification	Required credits for completion	Remarks
Computer Science and Engineering	12	

For students in the Double Degree Program, up to 15 credits that the students had acquired at their home university before coming to TUT can be transferred to TUT Doctoral degree program only if TUT admits after being examined. Those 15 credits shall be determined by TUT's criteria. However, credit transfer for compulsory courses will not be accepted.

2. Application for degree

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

II Class registration, examination, and attendance period

1. Class registration method

Classes shall be registered according to the program schedule of the student's respective major.

(1) Making study plans

To make study plans, the student should read this Guide Book thoroughly, and follow the instructions and advice given during the orientation and by the supervisor.

The Course Schedule is provided at the beginning of each academic year. Schedules for intensive classes will be posted at "KYOMU JOHO SYSTEM" and on a bulletin board when the details are fixed.

(2) Class registration

Students must register for classes using "KYOMU JOHO SYSTEM" at the TUT website https://kyomu.office.tut.ac.jp/portal/

or by the form "Application for Subjects" during the designated period.

*Classes cannot be registered for nor withdrawn from after the designated registration period. Classes with no registration will not be accredited in any case.

NOTES

- 1) If the student does not attend the classes nor take the examinations, credits will not be given even if the registration is made.
- 2) A student cannot re-register for a subject for which credits are given.
- 3) Only one subject can be registered for in a given time schedule. Note that this does not apply to intensive subjects.

(3) Confirming and amending the registration

To confirm or amend class registration, students should access "KYOMU JOHO SYSTEM", and follow the manuals instructions.

(4) Repeating classes

In principle, a student who has failed a subject with regular examinations or has not gained credits for some other reason can take the same subject again in the next academic year. To repeat a subject, the student must register again.

2. Examination

Examination includes regular examinations and make-up examinations.

(1) Regular examination

In principle regular examinations shall be held during the set period at the end of each term.

All students are to check the examination schedule in the academic calendar at "KYOMU JOHO SYSTEM" or on the bulletin boards. Note that examinations may be held at any time found necessary by the subject instructor.

(2) Make-up examination

- 1) Make-up examinations shall be held only when a student cannot take the regular examination for one of the following reasons. The student must gain the approval of the subject instructor using the form "Request for a make-up examination".
- a) Illness (doctor's medical certificate must be submitted)
- b) Accidents, disaster (certificate must be submitted), or other special reason (a letter explaining the reason must be submitted)
- 2) "Request for a make-up examination" must be submitted to the Academic Affairs Division within one week from the final date of the regular examination.
- 3) If a student fails to take the make-up examination, further examinations will not be allowed.

(3) Recognition of Credits and Grading System

Course instructors recognize credits for courses based on the results of examinations, etc.

- ① Student performance is graded based on the following standards. S, A, B and C are passing grades while D is a failing grade. Credits are awarded to grade C and above.
 - S \cdots 90 to 100 points
 - A···80 to 89 points
 - B···70 to 79 points
 - $C \cdots 60$ to 69 points
 - D···59 points or less
- With the aim of making course grades internationally compatible, TUT has launched a Grade Point Average (GPA) system, providing a barometer to judge the overall performance of students, starting with students who entered TUT in academic year 2018. The objectives of the GPA system are to fairly grade performance and to enhance students' desire for study by calculating the point average as a barometer to indicate the state and results of students' academic performance.

Grade	Points	Description of Grade	Judgement	Grade Point
S	90 to 100 points	Excellent—Outstanding performance		4.0
Α	80 to 89 points	Good—Excellent performance	Pass	3.0
В	70 to 79 points	Satisfactory—Generally sound performance		2.0
С	60 to 69 points	Sufficient—Performance meeting the minimum passing criteria		1.0
D	59 points or less	Failure	Failure	0.0
N	-	Course for credit recognition (not included in GPA)	Pass (Recognition)	N/A
Н	-	Abandoned course (Course the student abandoned by continuing to miss the class or no taking an examination without cancelling the registration)	Abandonment	0.0
K	-	Invalidated grade due to misconduct	Invalid	0.0

GPA is an average calculated by converting above letter grades to grade points (GP) ranging from 0.0 to 4.0, multiplying these grade points by the number of credits for each course, and then dividing the total grade points by the total amount of registered credits.

Note, however, that grades from the following courses cannot be used to calculate GPA. Such courses are marked with a hyphen in the GP column of the grade report.

- (1)Courses for which credits were earned on the basis of the credit exchange system conducted with other universities, graduate schools, etc.; courses that were registered at other universities or junior colleges while enrolled in TUT; and courses that were registered at universities, junior colleges or graduate schools in foreign countries
- (2)Courses for which credits were earned before entering TUT and were recognized after entering TUT; courses that were registered at TUT, other universities or junior colleges before entering TUT; and courses registered at universities, junior colleges or graduate schools in foreign countries (including courses registered for as a credited auditor student)
- (3)Courses for which credits were earned through mid-course entry, interschool transfer, readmission, or studying abroad, and were subsequently recognized
- (4)Courses for which credits cannot be counted toward graduation requirements; and courses for which credits were earned through the system for advance registration to graduate school programs
- (5)Courses that are designated separately by each department (On-the-job Training (internships), Supervised Research, Seminars, experimental courses, and practical training courses)
- ③ Each student can check grades and GPA for recognized credits in the "KYOMU JOHO SYSTEM".

(4) System for appealing grades

Students who have concerns about their grades for a particular semester should inquire from the class instructor. If students have complaints regarding the instructor's response, they can submit an appeal. Students, however, cannot appeal the reason or basis for the grade.

Students should contact the Educational Affairs Division for details.

3. Maximum years of attendance and related matters

(1) Maximum years of attendance

A student may not be in the doctoral course at TUT for more than six years, counting from the enrollment at the home university.

(2) Leave of absence

If a student cannot attend classes for two or more months consecutively due to illness or other special reasons, the student may submit the form "Request for leave of absence" to the Educational Affairs Division after getting approval from the supervisor, a member of the academic affairs committee, and their department head. Upon approval by the President, the student can take a leave of absence (maximum two years in total).

The period of this absence will not be counted in the "Maximum years of attendance" mentioned in paragraph (1) above.

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

To return to school before the approved period following the removal of the cause of absence, the student must submit the form "Application for return to university" and obtain approval.

(3) Withdrawal

If a student wants to withdraw from the university, the student must submit the form "Application for withdrawal from university" to the Educational Affairs Division after getting approval from the supervisor, a member of the academic affairs committee, and the department head. Upon approval by the President, the student can withdraw from the university.

Note that the tuition fee has to be paid in full even if the student withdraws in the middle of a term.

(4) Removal from the University

A student will be removed from the university for the following reason.

- 1) A student exceeds the period mentioned above in paragraph (1) "Maximum years of attendance".
- 2) A student cannot return to school after the period of absence mentioned above in paragraph (2) "Leave of absence".
- 3) A student dies, or disappears.
- 4) A student who has been approved for half exemption or postponement of admission fee payment and does not pay the admission fee by the designated date.
- 5) A student fails to pay the tuition and does not pay even after a warning.

4. Other matters

(1) Information about canceled or make-up classes

All students are requested to double-check their class schedules and other information using the following means:

	Location	information
TUT website	https://kyomu.office.tut.ac.jp/portal/Public/Board/BoardList.aspx	Canceled or make-up classes
TUT website for mobile phones	https://kyomu.office.tut.ac.jp/mobile/Main.aspx *Mobile tagging by camera phones	Canceled or make-up classes

(2) Classes/exams when a STORM WARNING is announced.

If a Storm Warning (*Bo-fu Keiho*) is announced for Toyohashi city or the South-east area of the Mikawa region, TUT will deal with 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 will be on schedule.
- 3) If the Storm Warning is cleared between 7:00 am and 11:00 am, all classes will start from the 3rd period (*Classes in the 1st and 2nd period will be canceled).
- 4) If the Storm Warning continues after 11:00 am, all classes will be canceled.
- *All cancelled classes and examinations will be rescheduled.
- 5) Whether or not a storm warning is announced, classes may be canceled because of suspension of public transportation service or some similar occurrence, at the discretion of the Vice President for Educational Affairs.
- 6) If cancelled classes cannot be held on YOBIBI (optional extra day), and final exams, on the alternate exam day, a Saturday may be used as an alternate day for classes or exams.
- 7) The above shall not apply to remote classes.

(3) 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.

(4) Absence from classes

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

Absences will be dealt with at the discretion of subject instructors.

Reasons for Absence	Documents 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
Infectious diseases*	Medical certificate or medical expense receipts	Students inform the TUT Health Care Center (0532-44-6632) in addition to informing lecturers directly.

^{*}TUT may require suspension in order to prevent the spread of infection. Suspension orders will be notified by email from TUT or KYOMU JOHO SYSTEM.

For student information about the new coronavirus, check the university website or the email from TUT.

III Curriculum

1. Classes and credits

(1) Classes

Classes in Doctoral program are only Specialized Subjects. Numbers of credits are set for each subject.

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

(2) Compulsory subjects and elective subjects

- 1) Compulsory subjects are the subjects that must be completed as a requirement of 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 lectures, exercises, experiments, practical or hands-on training, and they are offered individually or in combinations, and the standard is that it takes 45 hours of study to earn one credit. This is calculated in the following ways.

- (a) For lectures, 15 hours of class time and 30 hours of preparation and review for one credit.
- (b) For exercises, 30 hours of class time and 15 hours of preparation and review for one credit.
- (c) For experiments, practical or hands-on training, 45 hours of class time for 1 credit.

(4) Class times and class schedule.

The following are the class times.

Period	1	2	3	4	5	6
Time	8:50 am-	10:30 am-	1:00 pm-	2:40 pm	4:20 pm-	6:00 pm-
Time	10:20 am	12:00 (noon)	2:30 pm	4:10 pm	5:50 pm	7:30 pm

The class schedule is posted on "KYOMU JOHO SYSTEM" at the beginning of each semester. Notification of changes to the class schedule is also posted.

Courses listed in the "Intensive" section of the class schedule are ones that are taught intensively at irregular times. Once the dates of intensive courses are decided, the information is posted.

(5) School term

A 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)

(Double Do	Subject Name						2nd g	grade		3rd grade	2022.10
Compulsory / Elective		Class format	Excluded from GPA		s Instructor		Fall 2 2.10 - 23.3	202 202 202	3.4	2023.10 - 2024.9	Note
Compulsory	Seminar on Computer Science and Engineering for DDDP	Exercise	0	5	Supervisor		!	5			
Compaledry	Seminar on Interdisciplinary Research	Exercise		1		,	1				
Elective Required	Ethics for Researchers	Lecture		1		1					<u></u> *1
	Advanced Data Science and Analysis 1	Lecture		1	T. Akiba	1				(0.5)	
	Advanced Data Science and Analysis 2	Lecture		1	M. Aono		1			(0.5)	
	Computer Network Engineering 1	Lecture		1	K. Umemura					0.5	
	Computer Network Engineering 2	Lecture		1	R. Ohmura					0.5	
	Advanced Robotic Perception and Human-Robot Interaction 1	Lecture		1	J. Miura	1				(0.5)	
	Advanced Robotic Perception and Human-Robot Interaction 2	Lecture		1	N. Ohshima R. Ohmura		1			(0.5)	
	Advanced 3D Vision Computation 1	Lecture		1	Y. Kanazawa	1				(0.5)	
	Advanced 3D Vision Computation 2	Lecture		1	Y. Sugaya		1			(0.5)	
Elective	Theoretical Computer Science, Advanced	Lecture		1	T. Fujito	1					
Liective	Advanced Molecular Simulation 1	Lecture		1	N. Kurita					0.5	
	Advanced Molecular Simulation 2	Lecture		1	H. Goto					0.5	
	Advanced Computational Intelligence in Brain System	Lecture		1	K. Murakoshi			1		(0.5)	
	Advanced Human Sensation and Perception 1	Lecture		1	S. Nakauchi	1				(0.5)	
	Advanced Human Sensation and Perception 2	Lecture		1	K. Koida		1			(0.5)	
	Information Security, Advanced	Lecture		1	K. Suzuki				1		
	Advanced Statistical Machine Learning Theory	Lecture		1	K. Watanabe					0.5	
	Advanced X Reality and Psychology 1	Lecture		1	M. Kitazaki	1				(0.5)	
	Advanced X Reality and Psychology 2	Lecture		1	T. Minami		1			(0.5)	

[◆] Those subjects whose numbers marked with "()" will be held every year.

^{♦ &}quot;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).

^{%1} Students who have obtained the credit of this subject during Master's program must take another subject among subject in the doctoral program

Global Rotation Program Course Requirement Guide Book

(October 2022)

International Master's Degree Program
International Doctoral Degree Program



International Master's Degree Program

I Requirements for completion

1. Requirements for completion

To complete the master's course, a student must participate in the course for two or more years, and must acquire the minimum credits required as follows. A student must carry out a research program under proper guidance by faculty members. In addition, a student must submit a master's thesis, and must pass a review and final examination.

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

	Classification	Required credits for completion	Remarks
0	General subjects	6	
5	Specialized subjects		
	Architecture and Civil Engineering	24	6 credits in total can be substituted with a combination of the following options, with permission from the student's supervisor. 1. Specialized master's subjects from the other departments 2. Specialized master's subjects held in Japanese (The same subject cannot be taken in both Japanese and
G	Grand total	30	English)

2. Application for degree

Only a student who has earned the credits required for completion, or who is expected to earn the required credits can apply for the master's degree. Degree application and procedures for submission of a thesis for a master's degree shall be posted on a bulletin board before the submission period.

II Class registration, examination, and attendance period

1. Class registration method

Classes shall be registered according to the program schedule of the student's respective major.

(1) Making study plans

To make study plans, the student should read this Guide Book thoroughly, and follow the instructions and advice given during the orientation and by the supervisors.

The Course Schedule is provided at the beginning of each academic year.

Schedules for intensive classes will be posted at "KYOMU JOHO SYSTEM" and on a bulletin board when the details are fixed.

(2) Class Registration

Students must register for classes using "KYOMU JOHO SYSTEM" at the TUT website https://kyomu.office.tut.ac.jp/portal/

or by the form "Application for Subjects" during the designated period.

*Classes cannot be registered for nor withdrawn from after the designated registration period. Classes with no registration will not be accredited in any case.

NOTES

- 1) To take specialized subjects given in other departments, or given in Japanese, students must obtain approval from their supervisor and the subject instructor with the form "Application for Registration in Subjects in Other Department," before registering.
- 2) If the student does not attend the classes nor take the examinations, credits will not be given even if the registration is made.
- 3) A student cannot re-register for a subject once credits are given.
- 4) Only one subject can be registered for in a given time schedule. Note that this does not apply to intensive subjects.

(3) Confirming and amending the registration

To confirm or amend class registration, students should access "KYOMU JOHO SYSTEM", and follow the manuals instructions.

(4) Repeating classes

In principle, a student who has failed a subject with regular examinations or has not gained credits for some other reasons can take the same subject again in the next academic year. To repeat a subject, the student must register again.

2. Examination

Examinations include regular examinations and make-up examinations.

(1) Regular examination

In principle regular examinations shall be held during the set period at the end of each term.

All students are to check the examination schedule in the academic calendar at "KYOMU JOHO SYSTEM" or on the bulletin boards. Note that examinations may be held at any time found necessary by the subject instructor.

(2) Make-up examination

- 1) Make-up examinations shall be held only when a student cannot take the regular examination for one of the following reasons. The student must gain the approval of the subject instructor using the form "Request for a make-up examination".
 - a) Illness (doctor's medical certificate must be submitted)
- b) Accidents, disaster (certificate must be submitted), or other special reason (a letter explaining the reason must be submitted)
- 2) "Request for a make-up examination" must be submitted to the Educational Affairs Division within one week from the final date of the regular examination.
- 3) If a student fails to take the make-up examination, further examinations will not be allowed.

(3) Recognition of Credits and Grading System

Course instructors recognize credits for courses based on the results of examinations, etc.

- ① Student performance is graded based on the following standards. S, A, B and C are passing grades while D is a failing grade. Credits are awarded to grade C and above.
 - S···90 to 100 points
 - $A \cdots 80$ to 89 points
 - $B \cdots 70$ to 79 points
 - C···60 to 69 points
 - D···59 points or less
- With the aim of making course grades internationally compatible, TUT has launched a Grade Point Average (GPA) system, providing a barometer to judge the overall performance of students, starting with students who entered TUT in academic year 2018. The objectives of the GPA system are to fairly grade performance and to enhance students' desire for study by calculating the point average as a barometer to indicate the state and results of students' academic performance.

Grade	Points	Description of Grade	Judgement	Grade Point
S	90 to 100 points	Excellent—Outstanding performance		4.0
Α	80 to 89 points	(annon—Excellent pertormance		3.0
В	70 to 79 points	I Satisfactory—Generally soling performance		2.0
С	60 to 69 points	Sufficient—Performance meeting the minimum passing criteria		1.0
D	59 points or less	Failure	Failure	0.0
N	-	Course for credit recognition (not included in GPA)	Pass (Recognition)	N/A
Н	Abandoned course (Course the student abandoned by continuing to miss the class or no taking an examination without cancelling the registration)		Abandonment	0.0
K	-	Invalidated grade due to misconduct	Invalid	0.0

GPA is an average calculated by converting above letter grades to grade points (GP) ranging from 0.0 to 4.0, multiplying these grade points by the number of credits for each course, and then dividing the total grade points by the total amount of registered credits.

Note, however, that grades from the following courses cannot be used to calculate GPA. Such courses are marked with a hyphen in the GP column of the grade report.

- (1)Courses for which credits were earned on the basis of the credit exchange system conducted with other universities, graduate schools, etc.; courses that were registered at other universities or junior colleges while enrolled in TUT; and courses that were registered at universities, junior colleges or graduate schools in foreign countries
- (2)Courses for which credits were earned before entering TUT and were recognized after entering TUT; courses that were registered at TUT, other universities or junior colleges before entering TUT; and courses registered at universities, junior colleges or graduate schools in foreign countries (including courses registered for as a credited auditor student)
- (3)Courses for which credits were earned through mid-course entry, interschool transfer, readmission, or studying abroad, and were subsequently recognized
- (4)Courses for which credits cannot be counted toward graduation requirements; and courses for which credits were earned through the system for advance registration to graduate school programs
- (5)Courses that are designated separately by each department (On-the-job Training (internships), Supervised Research, Seminars, experimental courses, and practical training courses)
- ③ Each student can check grades and GPA for recognized credits in the "KYOMU JOHO SYSTEM".

(4) System for appealing grades

Students who have concerns about their grades for a particular semester should inquire from the class instructor. If students have complaints regarding the instructor's response, they can submit an appeal. Students, however, cannot appeal the reason or basis for the grade.

Students should contact the Educational Affairs Division for details.

3. Maximum years of attendance and related matters

(1) Maximum years of attendance

A student may not be in the master's course at the university for more than four years.

(2) Leave of absence

If a student cannot attend classes for two or more months consecutively due to illness or other special reasons, the student may submit the form "Request for leave of absence" to the Educational Affairs Division after getting approval from the supervisor, a member of the academic affairs committee, and their department head. Upon approval by the President, the student can take a leave of absence (maximum two years in total).

The period of this absence will not be counted in the "Maximum years of attendance" mentioned in paragraph (1) above.

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

To return to school before the approved period following the removal of cause of absence, the student must submit the form "Application for return to university" and obtain approval.

(3) Withdrawal

If a student wants to withdraw from the university, the student must submit the form "Application for withdrawal from university" to the Educational Affairs Division after getting the approval from the supervisor, a member of the academic affairs committee, and the department head. Upon approval by the President, the student can withdraw from the university.

Note that the tuition fee has to be paid in full even if the student withdraws in the middle of a term.

(4) Removal from the University

A student will be removed from the university for the following reason.

- 1) A student exceed the period mentioned above in paragraph (1) "Maximum years of attendance".
- 2) A student cannot return to school after the period of absence mentioned above in paragraph (2) "Leave of absence".
- 3) A student dies, or disappears.
- 4) A student who has been approved for half exemption or postponement of admission fee payment and does not pay the admission fee by the designated date.
- 5) A student fails to pay the tuition and does not pay even after a warning.

4. Other matters

(1) Information about canceled or make-up classes

All students are requested to double-check their class schedules and other information using the following means:

	Location	information
TUT website	https://kyomu.office.tut.ac.jp/portal/Public/Board/BoardList.aspx	Canceled or make-up classes
TUT website for mobile phones	https://kyomu.office.tut.ac.jp/mobile/Main.aspx	Canceled or make-up classes

(2) Classes/exams when a STORM WARNING is announced.

If a Storm Warning (*Bo-fu Keiho*) is announced for Toyohashi city or the South-east area of the Mikawa region, TUT will deal with 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 will be on schedule.
- 3) If the Storm Warning is cleared between 7:00 am and 11:00 am, all classes will start from the 3rd period (*Classes in the 1st and 2nd period will be canceled).
- 4) If the Storm Warning continues after 11:00 am, all classes will be canceled.
- *All cancelled classes and examinations will be rescheduled.
- 5) Whether or not a storm warning is announced, classes may be canceled because of suspension of public transportation service or some similar occurrence, at the discretion of the Vice President for Educational Affairs.
- 6) If cancelled classes cannot be held on YOBIBI (optional extra day), and final exams, on the alternate exam day, a Saturday may be used as an alternate day for classes or exams.
- 7) The above shall not apply to remote classes.

(3) 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.

(4) Absence from classes

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

Absences will be dealt with at the discretion of subject instructors.

Reasons for Absence	Documents 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
Infectious diseases*	Medical certificate or medical expense receipts	Students inform the TUT Health Care Center (0532-44-6632) in addition to informing lecturers directly.

^{*}TUT may require suspension in order to prevent the spread of infection. Suspension orders will be notified by email from TUT or KYOMU JOHO SYSTEM.

For student information about the new coronavirus, check the university website or the email from TUT.

III Curriculum

1. Classes and credits

(1) Classes

Classes are divided into General Subjects and Specialized Subjects. Numbers of credits are set for each subject.

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

(2) Compulsory subjects and elective subjects

- 1) Compulsory subjects are the subjects that must be completed as a requirement of 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 lectures, exercises, experiments, practical or hands-on training, and they are offered individually or in combinations, and the standard is that it takes 45 hours of study to earn one credit. This is calculated in the following ways.

- (a) For lectures, 15 hours of class time and 30 hours of preparation and review for one credit.
- (b) For exercises, 30 hours of class time and 15 hours of preparation and review for one credit.
- (c) For experiments, practical or hands-on training, 45 hours of class time for 1 credit.

(4) Class times and class schedule.

The following are the class times.

Period	1	2	3	4	5	6
Time	8:50 am–	10:30 am-	1:00 pm-	2:40 pm	4:20 pm-	6:00 pm-
	10:20 am	12:00 (noon)	2:30 pm	4:10 pm	5:50 pm	7:30pm

The class schedule is posted on "KYOMU JOHO SYSTEM" at the beginning of each semester. Notification of changes to the class schedule is also posted.

Courses listed in the "Intensive" section of the class schedule are ones that are taught intensively at irregular times. Once the dates of intensive courses are decided, the information is posted.

(5) School term

A 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)

									2022.10
					Classes/Week				•
					1st g	jrade	2nd		
Compulsory	Subject Name	Class	Excluded	Credits	Fall 1 Fall 2	Spring 1 Spring 2	grade	Instructor	note
Elective	Subject Name	format	from GPA	Credits	2022.10	2023.4	2023.10		note
					-	-	-		
					2023.3	2023.9	2024.9		
Compulsory	Ethics for Researchers	Lecture		1	1		(0.5)		
	Culture and Communication I	Lecture		2					
	Culture and Communication II	Lecture		2	1			S. Iwauchi	
Elective	Principles of Japanese Conversation	Lecture		2		1	(1)	Y. Muramatsu	
Elective	Principles of Japanese Grammar	Lecture		2	1		(1)	J. Ishige	
	Japanese Life Today	Lecture		2		1	(1)		*
	Japanese Industrial Technologies and Innovations	Lecture		2	1		(1)		※

XICA Trainees have to register for the 2 subjects: "Japanese Life Today" and

- $\ \, \blacklozenge \,$ Those subjects whose numbers marked with "()" will be held every year.
- ♦ "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).

[&]quot;Japanese Industrial Technologies and Innovations" and are required to earn these academic credits.

									2022.10
Compulsory			Excluded		1st g	lasses/Week grade	2nd		
/ Elective	Subject Name	Class format	from GPA	Credits	Fall 1 Fall 2 2022.10	Spring 1 Spring 2 2023.4	grade 2023.10	Instructor	note
LICOLIVE			0.7		- 2023.3	- 2023.9	- 2024.9		
	Seminar on Architecture and Civil Engineering I	Exercise	0	3	;	3		Supervisor	
	Seminar on Architecture and Civil Engineering II	Exercise	0	3			3	Supervisor	
Compulsory	Problem-Based Learning Program A	Exercise		1	1			Supervisor	
	Theory and Practice of Architectural and Civil Engineer A	Lecture		1		1		H. Ono	
	Thesis Research on Architecture and Civil Engineering	Experiment	0	6		9		Supervisor	
	Elasticity and Stability	Lecture		2			1	Y. Matsumoto	
	Finite Element Method for Continua and Bar Structures	Lecture		2	1			S. Nakazawa	
	Seismic Evaluation of Existing Buildings	Lecture		2			1	T. Matsui	
	Seismic Design of Structures	Lecture		2	1		(1)	T. Saito	
	Geotechnical Analysis	Lecture		2	1			K. Miura	
	Geohazards	Lecture		2			1	T. Matsuda	
	Building Science: Indoor Air Quality and Ventilation	Lecture		2			1	M. Tajima Y. Shimazaki	
	Building science: Thermal Environment and vernacular architecture	Lecture		2		1		M. Tajima Y. Shimazaki	
	Coastal Hydraulics	Lecture		2			1	S. Kato	
	Water Environment Engineering	Lecture		2		1	(1)	T. Inoue K. Yokota	
	Environmental Control in Biology	Lecture		2			1	T. Tokairin	
	Advanced Study on Housing System and Housing Policy	Lecture		2				S. Matsushima	
Elective	Advanced Urban Planning	Lecture		2			1	J. Asano H. Ono	
Elective	Advanced Architectural Design	Lecture		2			1	A. Mizutani	
	Advanced Transportation and Urban Planning	Lecture		2			1	N. Sugiki	
	Advanced Computational Economics	Lecture		2			1	H. Shibusawa	
	Advanced Transportation Engineering	Lecture		2	1			K. Matsuo	
	Advanced Structural System Planning and Design I	Lecture		2	1		(1)	T. Saito S. Nakazawa K. Miura	
	Advanced Structural System Planning and Design II	Lecture		2		1	(1)	T. Matsui Y. Matsumoto T. Matsuda	
	Advanced Environmental System Planning and Design I	Lecture		2	1		(1)	M. Tajima T. Inoue S. Kato	
	Advanced Environmental System Planning and Design II	Lecture		2		1	(1)	Y. Shimazaki K. Yokota T. Tokairin	
	Advanced Regional System Planning and Design I	Lecture		2	1		(1)	S. Matsushima J. Asano H. Shibusawa A. Mizutani	
	Advanced Regional System Planning and Design II	Lecture		2		1		H. Ono N. Sugiki K. Matsuo	
	Up to two subjects marked with ※ can		rom course		nt by your supe	rvisor Consult		K. Matsuo	le

[◆] Up to two subjects marked with ※ can be acquired from courses taught by your supervisor. Consult your supervisor about details.

[♦] Those subjects whose numbers marked with "()" will be held every year.

International Doctoral Degree Program

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 obtain the minimum credits required as follows. A student must carry out a research program under proper guidance by faculty members. In addition, a student must submit a doctoral thesis, and must pass a review and final examination.

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

4 credits in total can be substituted with a combination of the following options, with permission from the student's supervisor. 1. Specialized subjects from International Master's Degree Program (except for Advanced subjects) Architecture and Civil Engineering 12 2. Subjects of the other departments from International Doctoral Degree Program 3. Subjects from doctoral program of student's own department held in Japanese (The same subject cannot be taken in both Japanese and English)	Classification	Required credits for completion	Remarks
with a combination of the following options, with permission from the student's supervisor. 1. Specialized subjects from International Master's Degree Program (except for Advanced subjects) Architecture and Civil Engineering 12 2. Subjects of the other departments from International Doctoral Degree Program 3. Subjects from doctoral program of student's own department held in Japanese (The same subject cannot be taken in both Japanese and			
	Architecture and Civil Engineering	12	with a combination of the following options, with permission from the student's supervisor. 1. Specialized subjects from International Master's Degree Program (except for Advanced subjects) 2. Subjects of the other departments from International Doctoral Degree Program 3. Subjects from doctoral program of student's own department held in Japanese (The same subject cannot be

2. Application for degree

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

II Class registration, examination, and attendance period

1. Class registration method

Classes shall be registered according to the program schedule of the student's respective major.

(1) Making study plans

To make study plans, the student should read this Guide Book thoroughly, and follow the instructions and advice given during the orientation and by the supervisor.

The Course Schedule is provided at the beginning of each academic year. Schedules for intensive classes will be posted at "KYOMU JOHO SYSTEM" and on a bulletin board when the details are fixed.

(2) Class registration

Students must register for classes using "KYOMU JOHO SYSTEM" at the TUT website https://kyomu.office.tut.ac.jp/portal/

or by the form "Application for Subjects" during the designated period.

*Classes cannot be registered for nor withdrawn from after the designated registration period. Classes with no registration will not be accredited in any case.

NOTES

- 1) To take Specialized subjects from International Master's Degree Program (except for Advanced topics subjects), subjects from your own department held in Japanese, or other department's subjects from International Doctoral Degree Program, Students must obtain approval from their supervisor and the subject instructor with the form "Application for Registration in Subjects in Other Department".
- 2) If the student does not attend the classes nor take the examinations, credits will not be given even if the registration is made.
- 3) A student cannot re-register for a subject for which credits are given.
- 4) Only one subject can be registered for in a given time schedule. Note that this does not apply to intensive subjects.

(3) Confirming and amending the registration

To confirm or amend class registration, students should access "KYOMU JOHO SYSTEM", and follow the manuals instructions.

(4) Repeating classes

In principle, a student who has failed a subject with regular examinations or has not gained credits for some other reason can take the same subject again in the next academic year. To repeat a subject, the student must register again.

2. Examination

Examination includes regular examinations and make-up examinations.

(1) Regular examination

In principle regular examinations shall be held during the set period at the end of each term.

All students are to check the examination schedule in the academic calendar at "KYOMU JOHO SYSTEM" or on the bulletin boards. Note that examinations may be held at any time found necessary by the subject instructor.

(2) Make-up examination

- 1) Make-up examinations shall be held only when a student cannot take the regular examination for one of the following reasons. The student must gain the approval of the subject instructor using the form "Request for a make-up examination".
- a) Illness (doctor's medical certificate must be submitted)
- b) Accidents, disaster (certificate must be submitted), or other special reason (a letter explaining the reason must be submitted)
- 2) "Request for a make-up examination" must be submitted to the Academic Affairs Division within one week from the final date of the regular examination.
- 3) If a student fails to take the make-up examination, further examinations will not be allowed.

(3) Recognition of Credits and Grading System

Course instructors recognize credits for courses based on the results of examinations, etc.

- ① Student performance is graded based on the following standards. S, A, B and C are passing grades while D is a failing grade. Credits are awarded to grade C and above.
 - S \cdots 90 to 100 points
 - $A \cdots 80$ to 89 points
 - B···70 to 79 points
 - $C\cdots 60$ to 69 points
 - D···59 points or less
- With the aim of making course grades internationally compatible, TUT has launched a Grade Point Average (GPA) system, providing a barometer to judge the overall performance of students, starting with students who entered TUT in academic year 2018. The objectives of the GPA system are to fairly grade performance and to enhance students' desire for study by calculating the point average as a barometer to indicate the state and results of students' academic performance.

Grade	Points Description of Grade		Judgement	Grade Point
S	90 to 100 points Excellent—Outstanding performance			4.0
Α	80 to 89 points	Good—Excellent performance	Pass	3.0
В	70 to 79 points	Satisfactory—Generally sound performance	PdSS	2.0
С	60 to 69 Sufficient—Performance meeting the minim points passing criteria			1.0
D	59 points or less Failure		Failure	0.0
N	-	Course for credit recognition (not included in GPA)	Pass (Recognition)	N/A
Н	-	Abandoned course (Course the student abandoned by continuing to miss the class or no taking an examination without cancelling the registration)	Abandonment	0.0
K	-	Invalidated grade due to misconduct	Invalid	0.0

GPA is an average calculated by converting above letter grades to grade points (GP) ranging from 0.0 to 4.0, multiplying these grade points by the number of credits for each course, and then dividing the total grade points by the total amount of registered credits.

Note, however, that grades from the following courses cannot be used to calculate GPA. Such courses are marked with a hyphen in the GP column of the grade report.

- (1)Courses for which credits were earned on the basis of the credit exchange system conducted with other universities, graduate schools, etc.; courses that were registered at other universities or junior colleges while enrolled in TUT; and courses that were registered at universities, junior colleges or graduate schools in foreign countries
- (2)Courses for which credits were earned before entering TUT and were recognized after entering TUT; courses that were registered at TUT, other universities or junior colleges before entering TUT; and courses registered at universities, junior colleges or graduate schools in foreign countries (including courses registered for as a credited auditor student)
- (3)Courses for which credits were earned through mid-course entry, interschool transfer, readmission, or studying abroad, and were subsequently recognized
- (4)Courses for which credits cannot be counted toward graduation requirements; and courses for which credits were earned through the system for advance registration to graduate school programs
- (5)Courses that are designated separately by each department (On-the-job Training (internships), Supervised Research, Seminars, experimental courses, and practical training courses)
- 3 Each student can check grades and GPA for recognized credits in the "KYOMU JOHO SYSTEM".

(4) System for appealing grades

Students who have concerns about their grades for a particular semester should inquire from the class instructor. If students have complaints regarding the instructor's response, they can submit an appeal. Students, however, cannot appeal the reason or basis for the grade.

Students should contact the Educational Affairs Division for details.

3. Maximum years of attendance and related matters

(1) Maximum years of attendance

A student may not be in the doctoral course at the university for more than six years.

(2) Leave of absence

If a student cannot attend classes for two or more months consecutively due to illness or other special reasons, the student may submit the form "Request for leave of absence" to the Educational Affairs Division after getting approval from the supervisor, a member of the academic affairs committee, and their department head. Upon approval by the President, the student can take a leave of absence (maximum two years in total).

The period of this absence will not be counted in the "Maximum years of attendance" mentioned in paragraph (1) above.

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

To return to school before the approved period following the removal of the cause of absence, the student must submit the form "Application for return to university" and obtain approval.

(3) Withdrawal

If a student wants to withdraw from the university, the student must submit the form "Application for withdrawal from university" to the Educational Affairs Division after getting approval from the supervisor, a member of the academic affairs committee, and the department head. Upon approval by the President, the student can withdraw from the university.

Note that the tuition fee has to be paid in full even if the student withdraws in the middle of a term.

(4) Removal from the University

A student will be removed from the university for the following reason.

- 1) A student exceeds the period mentioned above in paragraph (1) "Maximum years of attendance".
- 2) A student cannot return to school after the period of absence mentioned above in paragraph (2) "Leave of absence".
- 3) A student dies, or disappears.
- 4) A student who has been approved for half exemption or postponement of admission fee payment and does not pay the admission fee by the designated date.
- 5) A student fails to pay the tuition and does not pay even after a warning.

4. Other matters

(1) Information about canceled or make-up classes

All students are requested to double-check their class schedules and other information using the following means:

	Location	information
TUT website	https://kyomu.office.tut.ac.jp/portal/Public/Board/BoardList.aspx	Canceled or make-up classes
TUT website for mobile phones	https://kyomu.office.tut.ac.jp/mobile/Main.aspx *Mobile tagging by camera phones	Canceled or make-up classes

(2) Classes/exams when a STORM WARNING is announced.

If a Storm Warning (*Bo-fu Keiho*) is announced for Toyohashi city or the South-east area of the Mikawa region, TUT will deal with 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 will be on schedule.
- 3) If the Storm Warning is cleared between 7:00 am and 11:00 am, all classes will start from the 3rd period (*Classes in the 1st and 2nd period will be canceled).
- 4) If the Storm Warning continues after 11:00 am, all classes will be canceled.
- *All cancelled classes and examinations will be rescheduled.
- 5) Whether or not a storm warning is announced, classes may be canceled because of suspension of public transportation service or some similar occurrence, at the discretion of the Vice President for Educational Affairs.
- 6) If cancelled classes cannot be held on YOBIBI (optional extra day), and final exams, on the alternate exam day, a Saturday may be used as an alternate day for classes or exams.
- 7) The above shall not apply to remote classes.

(3) 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.

(4) Absence from classes

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

Absences will be dealt with at the discretion of subject instructors.

Reasons for Absence	Documents 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		
Infectious diseases*	Medical certificate or medical expense receipts	Students inform the TUT Health Care Center (0532-44-6632) in addition to informing lecturers directly		

^{*}TUT may require suspension in order to prevent the spread of infection.

Suspension orders will be notified by email from TUT or KYOMU JOHO SYSTEM.

For student information about the new coronavirus, check the university website or the email from TUT.

III Curriculum

1. Classes and credits

(1) Classes

Classes in Doctoral program are only Specialized Subjects. Numbers of credits are set for each subject.

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

(2) Compulsory subjects and elective subjects

- 1) Compulsory subjects are the subjects that must be completed as a requirement of 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 lectures, exercises, experiments, practical or hands-on training, and they are offered individually or in combinations, and the standard is that it takes 45 hours of study to earn one credit. This is calculated in the following ways.

- (a) For lectures, 15 hours of class time and 30 hours of preparation and review for one credit.
- (b) For exercises, 30 hours of class time and 15 hours of preparation and review for one credit.
- (c) For experiments, practical or hands-on training, 45 hours of class time for 1 credit.

(4) Class times and class schedule.

The following are the class times.

Period	1	2	3	4	5	6
Time	8:50 am-	10:30 am-	1:00 pm-	2:40 pm	4:20 pm-	6:00 pm-
	10:20 am	12:00 (noon)	2:30 pm	4:10 pm	5:50 pm	7:30 pm

The class schedule is posted on "KYOMU JOHO SYSTEM" at the beginning of each semester. Notification of changes to the class schedule is also posted.

Courses listed in the "Intensive" section of the class schedule are ones that are taught intensively at irregular times. Once the dates of intensive courses are decided, the information is posted.

(5) School term

A 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)

Architecture and Civil Engineering (Global Rotation Program)

(Doctoral Degree Program) 2022.10 1st grade 2nd 3rd Fall Spring grade grade Compulsory Class Excluded Subject Name Credits Instructor Note 2022.10 2023.4 2024.10 2023.10 from GPA format Elective 2023.3 2023.9 2025.9 2024.9 Seminar on Architecture and Civil Exercise 4 0 4 Supervisor Engineering 1 Seminar on Architecture and Civil Exercise 0 1 Supervisor 1 Engineering 2 Problem-Based Learning Program B Exercise 1 Supervisor Compulsory Theory and Practice of Architectural and H. Ono 1 Lecture 1 Civil Engineer B 0 Intensive lecture Teaching Practice on Global Education Exercise 1 Supervisor Practical Intensive Japanese Industrial Internship Program 0 1 Supervisor training lecture Elective 1 Ethics for Researchers Lecture 1 Required × 1 Seminar on Interdisciplinary Research Exercise 1 Advanced Mechanics and Design of S. Nakazawa Lecture 2 1 Spatial Structure Systems Y. Matsumoto T Saito Advanced Structural Design 2 Lecture T. Matsui M. Tajima Advanced Building Environmental Lecture 2 1 Engineering and Building Services Y. Shimazaki S. Matsushima 2 Advanced Theory in Architectural Design Lecture A. Mizutani Elective J. Asano Sustainable Urban Planning Lecture 2 H. Ono Advanced Geologic Hazard Mitigation K. Miura 2 1 Lecture T. Matsuda Planning T. Inoue Advanced Water Environmental 2 Lecture S. Kato Engineering Yokota Advanced Environmental Control in Lecture 2 T. Tokairin 1 Biology H. Shibusawa Advanced Transportation Systems and Lecture 2 N. Suaiki 1 K. Matsuo

X1 Students who have obtained the credit of this subject during Master's program must take another subject among subject in the doctoral program