List of Graduate Courses Available to Undergraduate-level International Exchange Students <For 1Q, 2Q of the 2022-2023 Academic Year>

As of March 17th, 2022

Eligibility for Acceptance

・Students must be final year undergraduates or at an equivalent level.

・Students must meet the specific criteria for each course defined by the instructor and indicated in the final column of the table.

・Students must be enrolled on an appropriate exchange program that allows access to these courses.

NOTE: TAKING ANY GRADUATE-LEVEL COURSE (400-LEVEL OR HIGHER) THAT IS NOT ON THIS LIST IS NOT PERMITTED UNDER ANY CIRCUMSTANCE.
EVEN IF THE COURSE INSTRUCTOR INDIVIDUALLY APPROVES YOUR ENROLLMENT, YOUR REGISTRATION FOR SUCH A COURSE WILL BE REJECTED.

1Q: April 9th-June 10th, 2Q: June 11th-August 9th

Major / Course Category	No.	Course Name	Lecturer	Quarter	Eligibility criteria or prerequisite knowledge, etc.
Graduate major in Mathematics	MTH.B401	Advanced topics in Geometry A	Gomi Kiyonori	1Q	
Graduate major in Mathematics	MTH.B402	Advanced topics in Geometry B	Gomi Kiyonori	2Q	
Graduate major in Mathematics	MTH.C401	Advanced topics in Analysis A	Tanabe Masaharu	1Q	
Graduate major in Mathematics	MTH.C402	Advanced topics in Analysis B	Tanabe Masaharu	2Q	
Graduate major in Physics	PHY.L412	Fundamental Physics Experiments	Jinnouchi Osamu, Kawai Nobuyuki, Nakamura Takashi, Somiya Kentaro	1Q	
Graduate major in Physics	PHY.F436	Advanced Particle Physics	Kuze Masahiro	2Q	
Graduate major in Physics	PHY.F437	Advanced Nuclear Physics	Sekizawa Kazuyuki, Fujioka Hiroyuki	2Q	
Graduate major in Physics	PHY.Q433	Field Theory I	Yamaguchi Masahide	2Q	
Graduate major in Physics	PHY.F431	Cosmology	Yamaguchi Masahide	1Q	
Graduate major in Physics	PHY.F430	Hadron Physics	Jido Daisuke	1Q	
Graduate major in Physics	PHY.Q438	Quantum Mechanics of Many-Body Systems	Saito Susumu	1Q	
Graduate major in Physics	PHY.C441	Crystal Physics	Satoh Takuya	1Q	
Graduate major in Physics	PHY.C439	Physics of Magnetic Materials	Satoh Takuya	2Q	
Graduate major in Physics	PHY.C442	Superfluidity	Okuma Satoshi	1Q	
Graduate major in Physics	PHY.C443	Superconductivity	Okuma Satoshi	2Q	
Graduate major in Physics	PHY.C445	Surface Physics	Hashizume Tomihiro	2Q	
Graduate major in Earth and Planetary Sciences	EPS.A410	Advanced Earth and Space Sciences A	Nakamoto Taishi	1Q	
Graduate major in Earth and Planetary Sciences	EPS.A421	Advanced Earth and Space Sciences G	Ogawa Yasuo, Kanda Wataru	2Q	
Graduate major in Mechanical Engineering	MEC.C432	Structural Integrity Assessment	Mizutani Yoshihiro	1Q	
Graduate major in Mechanical Engineering	MEC.H431	Advanced Mechanical Elements	Iwatsuki Nobuyuki	1Q	
Graduate major in Mechanical Engineering	MEC.D431	Advanced Sound and Vibration Measurement	Matsumura Shigeki	1Q	
Graduate major in Mechanical Engineering	MEC.G431	Mechanical Processing	Yoshioka Hayato, Tanaka Tomohisa, Hirata Atsushi	2Q	
Graduate major in Mechanical Engineering	MEC.C431	Mechanics of Composite Materials	Todoroki Akira	2Q	Mechanics of materials, Theory of Elasticity and Plasticity, Strength and fracture of materials
Graduate major in Mechanical Engineering	MEC.F431	Computational Fluid Dynamics	Xiao Feng, Aoki Takayuki, Onishi Ryo	1Q	Prerequisite: fundamental knowledge of fluid mechanics and numerical methods
Graduate major in Systems and Control Engineering	SCE.I401	Advanced Course of Measurement and Signal Processing	Hara Seiichiro	1Q	
Graduate major in Systems and Control Engineering	SCE.M401	Numerical Analysis of Heat Transfer and Fluid Flow	Kosaka Hidenori	2Q	
Graduate major in Systems and Control Engineering	SCE.M402	Modeling of Bio-Systems I	Nakashima Motomu, Kurabayashi Daisuke, Miyazaki Yusuke	2Q	
Graduate major in Systems and Control Engineering	SCE.A404	Nonlinear Dynamics	Nakao Hiroya	2Q	
Graduate major in Electrical and Electronic Engineering	EEE.C441	VLSI Technology I	Wakabayashi Hitoshi, Kakushima Kuniyuki	1Q	
Graduate major in Electrical and Electronic Engineering	EEE.D451	Bipolar Transistors and Compound Semiconductor Devices	Miyamoto Yasuyuki	1Q	Graduate-level knowledge of electronic devices, analog electronic circuits and semiconductor physics (Equivalent to 200s and 300s-level courses in those subjects at Tokyo Tech)
Graduate major in Electrical and Electronic Engineering	EEE.P451	Plasma Engineering	Akatsuka Hiroshi, Okino Akitoshi	1Q	
Graduate major in Electrical and Electronic Engineering	EEE.D431	Fundamentals of Light and Matter I	Kajikawa Kotaro, Munekata Hiro, Ito Haruhiko	1Q	Completion of courses in quantum mechanics and electromagnetism is preferable.

Graduate major in Electrical and Electronic Engineering	EEE.D411	Semiconductor Physics	Yamada Akira	2Q	Basic knowledge of quantum mechanics and electronic properties of solids.
Graduate major in Electrical and Electronic Engineering	EEE.S451	Wireless Communication Engineering	Sakaguchi Kei, Tran Gia Khanh	2Q	The fundamentals on signal & systems are prerequisite.
Graduate major in Electrical and Electronic Engineering	EEE.D401	Fundamentals of Electronic Materials	Nakagawa Shigeki, Sugahara Satoshi	1Q	Basic knowledge of quantum mechanics and electronic properties of solids.
Graduate major in Electrical and Electronic Engineering	EEE.S401	Advanced Electromagnetic Waves	Hirokawa Jiro, Tomura Takashi	1Q	The undergraduate-level knowledge is required on electromagnetism and electromagnetic wave.
Graduate major in Electrical and Electronic Engineering	EEE.P412	Power electronics circuits and systems	Fujita Hideaki	2Q	It is required to understand the knowledge taught in the undergraduate power electronics course.
Graduate major in Information and Communications Engineering	ICT.C401	Modern Cryptography	Ogata Wakaha	1Q	Completion of courses of discrete mathematics and probability and statistics
Graduate major in Information and Communications Engineering	ICT.S407	Wireless Signal Processing	Fukawa Kazuhiko	2Q	Completion of courses in linear algebra, caluculus, probability and statistics
Graduate major in Information and Communications Engineering	ICT.A406	Human-Centric Information Systems I	Nakayama Minoru, Koike Yasuharu, Yamaguchi Masahiro, Nakamoto Takamichi, Kaneko Hirohiko, Obi Takashi, Hasegawa Shoichi	2Q	Sufficient basic academic skills in information and communications.
Graduate major in Information and Communications Engineering	ICT.I408	Analog Integrated Circuits	Takagi Shigetaka	2Q	Sufficient basic academic skills in electric circuits, linear circuits and linear electronic circuits.
Graduate major in Information and Communications Engineering	ICT.H409	Optics in Information Processing	Yamaguchi Masahiro	2Q	Basic knowledge of calculus, linear algebra, probability and statistics and Fourier analysis.
Graduate major in Information and Communications Engineering	ICT.H411	Basic Sensation Informatics	Kaneko Hirohiko, Nagai Takehiro	2Q	Sufficient basic academic skills in information and communications.
Graduate major in Information and Communications Engineering	ICT.I425	Parallel and Reconfigurable VLSI Computing	Nakahara Hiroki	2Q	Sufficient basic academic skills in information and communications.
Graduate major in Industrial Engineering and Economics	IEE.D431	Distribution and Marketing	Chung Su-Lin	1Q	
Graduate major in Industrial Engineering and Economics	IEE.C432	Applied Cognitive Ergonomics	Aoki Hirotaka, Xiuzhu Gu	2Q	
Graduate major in Materials Science and Engineering	MAT.C408	Advanced Course of Surface Chemistry on Inorganic Materials	Nakajima Akira, Matsushita Sachiko	2Q	Students need knowledge of physical chemistry equivalent to that of fourth-year undergraduates at Tokyo Tech and need to consult with the lecturer when attending this course first.
Graduate major in Materials Science and Engineering	MAT.P402	Soft Materials Physical Chemistry	Ouchi Yukio	2Q	Students need knowledge of physical chemistry equivalent to that of fourth-year undergraduates at Tokyo Tech and need to consult with the lecturer when attending this course first.
Graduate major in Materials Science and Engineering	MAT.C407	Advanced Course of Nano-Bionics	Ikoma Toshiyuki	1Q	Students need knowledge of material chemistry equivalent to that of fourth-year undergraduates at Tokyo Tech and need to consult with the lecturer when attending this course first.
Graduate major in Materials Science and Engineering	MAT.P401	Organic Optical Materials physics	Ishikawa Ken	2Q	Students need knowledge equivalent to the course content of MAT.P302 "Optics".
Graduate major in Materials Science and Engineering	MAT.P413	Soft Materials Functional Chemistry	Hayakawa Teruaki	1Q	Students need knowledge of organic chemistry and polymer chemistry to that of fourth-year undergraduates at Tokyo Tech and need to consult with the lecturer when attending this course first.
Graduate major in Materials Science and Engineering	MAT.P421	Organic Materials Functional Design	Asai Shigeo	1Q	Students need knowledge of physical chemistry and organic materials properties to that of fourth-year undergraduates at Tokyo Tech and need to consult with the lecturer when attending this course first.
Graduate major in Materials Science and Engineering	MAT.M426	Transport Phenomena at High Temperature – Momentum and Heat Flow –	Hayashi Miyuki, Kawamura Kenichi, Susa Masahiro, Kobayashi Yoshinao, Ueda Mitsutoshi	2Q	Students need knowledge of metallurgy equivalent to that of fourth-year undergraduates at Tokyo Tech and need to consult with the lecturer when attending this course first.
Graduate major in Materials Science and Engineering	MAT.C402	Quantum Physics in Optical Response of Materials	Nakamura Kazutaka	2Q	Students need knowledge of quantum mechanics equivalent to that of fourth-year undergraduates at Tokyo Tech and need to consult with the lecturer when attending this course first.
Graduate major in Materials Science and Engineering	MAT.M405	Advanced Microstructure Design of Ferrous Materials	Kobayashi Satoru, Takeyama Masao	2Q	Students need knowledge of metallurgy equivalent to that of fourth-year undergraduates at Tokyo Tech and need to consult with the lecturer when attending this course first.
Graduate major in Materials Science and Engineering	MAT.M427	Transport Phenomena at High Temperature – Flow of charged particles in solid –	Kawamura Kenichi, Hayashi Miyuki, Susa Masahiro, Kobayashi Yoshinao, Ueda Mitsutoshi	2Q	Students need knowledge of metallurgy equivalent to that of fourth-year undergraduates at Tokyo Tech and need to consult with the lecturer when attending this course first.
Graduate major in Materials Science and Engineering	MAT.M431	Kinematical theory of microstructure formed by diffusionless phase transformation	Inamura Tomonari, Tahara Masaki	1Q	Students need knowledge of metallurgy equivalent to that of fourth-year undergraduates at Tokyo Tech and need to consult with the lecturer when attending this course first.
Graduate major in Materials Science and Engineering	MAT.P416	Soft Materials Chemistry	Sagara Yoshimitsu	2Q	Fundamental knowledge on organic chemistry is needed.
Graduate major in Chemical Science and Engineering	CAP.A461	Advanced Solid State Chemistry I	Ohtomo Akira	1Q	Knowledge of fundamental solid-state chemistry is needed.
Graduate major in Chemical Science and Engineering	CAP.C423	Computational Fluid Dynamics	Okawara Shinichi	2Q	Fundamental knowledge of fluid dynamics and transport phenomena is needed.
Graduate major in Chemical Science and Engineering	CAP.C421	Advanced Energy Transfer Operation	Sekiguchi Hidetoshi	2Q	Knowledge of fundamental chemical engineering is desireble.
Graduate major in Chemical Science and Engineering	CAP.C412	Process Systems Engineering	Matsumoto Hideyuki	1Q	Knowledge of fundamental chemical engineering is desireble.
Graduate major in Chemical Science and Engineering	CAP.I420	Advanced Supramolecular Science	Fukushima Takanori, Yoshizawa Michito	2Q	Fundamental knowledge on organic chemistry, inorganic chemistry, physical chemistry
Graduate major in Chemical Science and Engineering	CAP.I407	Introduction to Chemical Engineering (Basics)	Yamaguchi Takeo, Tamaki Takanori	1Q	
Graduate major in Chemical Science and Engineering	CAP.C424	Advanced Reaction Process Engineering	Tago Teruoki	2Q	Knowledge of fundamental chemical engineering is desireble.
Graduate major in Chemical Science and Engineering	CAP.I419	Analytical Techniques for Environmental Chemistry	Toyoda Sakae, Yamada Keita	2Q	Fundamental knowledge of general chemistry is desired.
Graduate major in Chemical Science and Engineering	CAP.I405	Environmental Chemistry	Toyoda Sakae, Yamada Keita	1Q	Fundamental knowledge of general chemistry is desired.
Graduate major in Chemical Science and Engineering	CAP.I426	Introduction to Polymer Science	Tomita Ikuyoshi, Imaoka Takane	1Q	
Graduate major in Chemical Science and Engineering	CAP.I427	Introduction to Polymer Chemistry	Tomita Ikuyoshi, Yamamoto Kimihisa, Kubo Shoichi	2Q	
Graduate major in Chemical Science and Engineering	CAP.P422	Advanced Polymer Properties	Tokita Masatoshi	2Q	Knowledge of fundamental polymer chemistry and physics is required.
Graduate major in Chemical Science and Engineering	CAP.C425	Advanced Bioprocess Engineering	Okochi Mina, Masayoshi Tanaka	2Q	Knowledge of fundamental chemical engineering is desireble.
Graduate major in Chemical Science and Engineering	CAP.P433	Introduction to Polymer Physical Chemistry	Tokita Masatoshi, Ishige Ryohei	1Q	

Graduate major in Chemical Science and Engineering	CAP.A425	Advanced Biofunctional Chemistry I	Tanaka Katsunori	1Q	Knowledge of synthetic and bioorganic chemistry is required.
Graduate major in Chemical Science and Engineering	CAP.A426	Advanced Biofunctional Chemistry II	Tanaka Katsunori	2Q	Knowledge of synthetic and bioorganic chemistry is required.
Graduate major in Mathematical and Computing Science	MCS.M421	Discrete Optimization	Sumita Hanna, Yamashita Makoto	2Q	Undergraduate level of linear algebra, and basic knowledge of combinatorial optimization theory and graph theory
Graduate major in Computer Science	CSC.T422	Mathematical Theory of Programs	Nishizaki Shin-Ya	1Q	Mathematical Logic (especially, first-order predicate logic) and basic notions on mathematics (especially, naive set theory and mathematical induction). Basic notions on programming languages.
Graduate major in Computer Science	CSC.T426	Software Design Methodology	Kobayashi Takashi	2Q	Programming experience in an Object-oriented programming language and proficiency in Java language. All examples in the lecture will be provided in Java.
Graduate major in Computer Science	CSC.T441	Internet Infrastructure	Ohta Masataka	2Q	
Graduate major in Computer Science	CSC.T438	Distributed Algorithms	Defago Xavier	1Q	
Graduate major in Life Science and Technology	LST.A403	Biophysics	Kobatake Eiry, Ueno Takafumi, Kamachi Toshiaki, Mie Masayasu, Asakura Noriyuki	1Q	
Graduate major in Life Science and Technology	LST.A404	Cell Physiology	Tachibana Kazunori, Nakatogawa Hitoshi, Fujita Naonobu, Kano Fumi	2Q	Undergraduate-level basic knowledge of cell biology.
Graduate major in Life Science and Technology	LST.A401	Molecular and Cellular Biology	Kimura Hiroshi, Iwasaki Hiroshi, Yamaguchi Yuki, Wakabayashi Ken-Ichi, Aizawa Yasunori	1Q	Acquisition of basics of molecular biology and cell biology.
Graduate major in Life Science and Technology	LST.A412	Biomaterial Science and Engineering	Tagawa Yoh-Ichi, Maruyama Atsushi, Mori Toshiaki, Matsuda Tomoko, Kinbara Kazushi	1Q	Undergraduate-level basic knowledge of materials science, molecular biology and genetic engineering.
Graduate major in Life Science and Technology	LST.A411	Biomolecular Engineering	Fukui Toshiaki, Ueda Hiroshi, Hirota Junji, Ohta Hiroyuki, Kitaguchi Tetsuya	2Q	Undergraduate-level basic knowledge of molecular biology and genetic engineering.
Graduate major in Architecture and Building Engineering	ARC.D402	Architectural Preservation and Renovation	Fujita Yasuhito	1Q	When the number of registered students exceeds the capacity, exchange students may not be accepted because we will see the histrian buildings in this course.
Graduate major in Architecture and Building Engineering	ARC.D421	Architectural Design Studio I	Yasuda Koichi, Okuyama Shinichi, Tsukamoto Yoshiharu, Yamazaki Taisuke, Murata Ryo, Nasu Satoshi, Shiozaki Taishin, Ishida Kentaro	1Q	
Graduate major in Architecture and Building Engineering	ARC.D441	Passive Solar Design	Murata Ryo	1Q	
Graduate major in Architecture and Building Engineering	ARC.P441	Theories in Urban Analysis and Planning I	Saio Naoko	2Q	
Graduate major in Civil Engineering	CVE.A401	Introduction to Solid Mechanics	Wijeyewickrema Anil	1Q	
Graduate major in Civil Engineering	CVE.A403	Analysis of Vibrations and Elastic Waves	Hirose Sohichi	2Q	Completion of courses in calculus and complex function theory is preferable.
Graduate major in Civil Engineering	CVE.F431	Maintenance of Infrastructure	Iwanami Mitsuyasu	2Q	
Graduate major in Civil Engineering	CVE.G401	Aquatic Environmental Science	Yoshimura Chihiro	2Q	
Graduate major in Civil Engineering	CVE.B401	Water Resource Systems	Kanae Shinjiro	1Q	
Graduate major in Civil Engineering	CVE.C403	Geo-environmental Engineering	Takemura Jiro	2Q1Q	Basic knowledge of civil and environmental engineering is required.
Graduate major in Civil Engineering	CVE.C401	Mechanics of Geomaterials	Takahashi Akihiro Sawada Mai	1Q2Q	Basic knowledge of soil mechanics is required.
Graduate major in Global Engineering for Development, Environment and Society	GEG.S401	Environmental Policy	Murayama Takehiko, Nishikizawa Shigeo	1Q	The number of the participants are limited and students of Major in Global Engineering for Development, Environment and Society (GEDES) are prioritized.
Graduate major in Global Engineering for Development, Environment and Society	GEG.T413	Basic Behaviormetrics: Theory and Methods	Takahashi Fumitake	2Q	
Graduate major in Global Engineering for Development, Environment and Society	GEG.E413	Geospatial data analysis for environment studies	Varquez Alvin Christopher Galang	1Q	The number of the participants are limited and students of Major in Global Engineering for Development, Environment and Society (GEDES) are prioritized.
Graduate major in Social and Human Sciences	SHS.P441	Graduate Lecture in Politics, Law and Administration S1A	Kaneko Hironao	1Q	
Graduate major in Social and Human Sciences	SHS.M461	Graduate Methodologies in Cognition, Mathematics and Information S1	Inohara Takehiro	1～2Q	
Graduate major in Energy Science and Engineering	ENR.A401	Interdisciplinary scientific principles of energy 1	Shimura Masayasu, Tago Teruoki, Ihara Manabu, Wada Hiroyuki	1Q	
Graduate major in Energy Science and Engineering	ENR.A402	Interdisciplinary scientific principles of energy 2	Otomo Junichiro, Arai Hajime, Ihara Manabu, Koshihara Shinya, Okimoto Yoichi, Wada Hiroyuki	2Q	
Graduate major in Energy Science and Engineering	ENR.A403	Interdisciplinary principles of energy devices 1	Hagiwara Makoto, Hanamura Katsunori, Fujita Hideaki, Suekane Tetsuya, Mori Shinsuke	1Q	
Graduate major in Energy Science and Engineering	ENR.A404	Interdisciplinary principles of energy devices 2	Wada Hiroyuki, Ihara Manabu, Miyajima Shinsuke, Sasabe Takashi, Otomo Junichiro, Hirayama Masaaki	2Q	
Graduate major in Energy Science and Engineering	ENR.H420	Introduction to Photochemistry I	Shishido Atsushi, Wada Hiroyuki	1Q	
Graduate major in Energy Science and Engineering	ENR.H403	Advanced Electrochemistry I	Arai Hajime, Kitamura Fusao, Hirayama Masaaki	1Q	Basic class for electrochemistry beginner.
Graduate major in Energy Science and Engineering	ENR.H404	Advanced Electrochemistry II	Arai Hajime, Kitamura Fusao, Hirayama Masaaki	2Q	Advanced class for those studied "Advanced Electrochemistry I" or equivalent.
Graduate major in Energy Science and Engineering	ENR.H405	Advanced Inorganic Materials Chemistry I	Hirayama Masaaki, Suzuki Kota	1Q	
Graduate major in Energy Science and Engineering	ENR.H406	Advanced Inorganic Materials Chemistry II	Hirayama Masaaki, Suzuki Kota	2Q	
Graduate major in Energy Science and Engineering	ENR.K430	Advanced course of turbulent flow and control	Tanahashi Mamoru, Shimura Masayasu	1Q	
Graduate major in Energy Science and Engineering	ENR.L401	Mechanical-to-electrical energy conversion	Fujita Hideaki	1Q	Knowledge of mechanics and electromagneti c s equivalent to high school-level physics
Graduate major in Energy Science and Engineering	ENR.I420	Advanced Lecture on Crystal Structure and Correlation with Properties of Solids	Yashima Masatomo	1Q	

Graduate major in Energy Science and Engineering	ENR.J407	Soft Materials Design	Matsumoto Hidetoshi	2Q	
Graduate major in Energy Science and Engineering	ENR.L410	Introduction to Photovoltaics	Miyajima Shinsuke	2Q	The students are expected to have basic knowledge of semiconductors. (p-type , n-type, Fermi level etc…)
Graduate major in Energy Science and Engineering	ENR.J406	Organic Electronic Materials Physics	Mori Takehiko	1Q	
Graduate major in Energy Science and Engineering	ENR.B431	Recent technologies of fuel cells, solar cells butteries and energy system	Ihara Manabu, Hirayama Masaaki, Miyajima Shinsuke	2Q	
Graduate major in Engineering Sciences and Design	ESD.A402	Design Thinking Fundamentals	Saito Shigeki, Sakamoto Hiraku, Inaba Kazuaki, Taoka Yuki, Yuval Kahlon, Terui Ryo	1Q	
Graduate major in Engineering Sciences and Design	ESD.D405	Materials and Design for Engineering Design	Inaba Kazuaki, Mizutani Yoshihiro	1Q	
Graduate major in Nuclear Engineering	NCL.N405	Nuclear Reactor Thermal-hydraulics	Kato Yukitaka, Kikura Hiroshige, Kondo Masatoshi, Takahashi Hideharu, Yoichi Murakami	1Q	
Graduate major in Nuclear Engineering	NCL.N407	Nuclear Safety Engineering	Kikura Hiroshige, Sagara Hiroshi, Takahashi Hideharu	2Q	
Graduate major in Nuclear Engineering	NCL.O401	Nuclear Non-proliferation and Security	Sagara Hiroshi, Hayashizaki Noriyosu, Kikuchi Masahiro	2Q	
Graduate major in Artificial Intelligence	ART.T452	Modeling of Continuous Systems	Ishii Hideaki, Aonishi Toru	1Q	Students are required to have undergraduate-level knowledge on linear algebra, calculus, probability, and statistics, and differential equations. It also helps to have taken basic courses on transfer functions, control systems, or signal
Graduate major in Artificial Intelligence	ART.T454	Advanced Topics in Artificial Intelligence S	Suzumura Toyotaro, Machida Motoya	1～2Q	
Graduate major in Artificial Intelligence	ART.T456	Non-linear Dynamical Systems	Miyake Yoshihiro, Takinoue Masahiro	2Q	Basic knowledge of differential equations; Numerical simulation skills for differential equations; Any programming language is acceptable
Graduate major in Artificial Intelligence	ART.T457	Workshop on Building Advanced Computer Network	Yamamura Masayuki, Ono Isao	2Q	
Graduate major in Artificial Intelligence	ART.T467	Fundamentals of Computer Vision	Kawakami Rei, Sato Ikuro	1Q	Students are required to have undergraduate-level knowledges on computer science, linear algebra, calculus, probability, and statistics.
Graduate major in Urban Design and Built Environment	UDE.E402	GIS and Digital Image Processing for Built Environment	Matsuoka Masashi	1Q	
Graduate major in Urban Design and Built Environment	UDE.E403	Introduction to Atmospheric Urban Environment	Okaze Tsubasa	2Q	
Graduate major in Urban Design and Built Environment	UDE.S433	Introduction on Theory of Earthquake Ground Motion	Yamanaka Hiroaki	1Q	
Graduate major in Urban Design and Built Environment	UDE.S434	Safe Built Environment I	Satoh Toshiaki, Suzuki Kojiro	1Q	
Graduate major in Urban Design and Built Environment	UDE.E404	Basic Engineering on Thermal Environment	Asawa Takashi	2Q	
Graduate major in Urban Design and Built Environment	UDE.S402	Nonlinear Behavior of Concrete and Concrete Members	Kono Susumu, Nishimura Koshiro	1Q	The class requires the basic knowledge of structural mechanics for undergraduate students.
Global awareness and other breadth courses	LAW.X412	Study on Japanese Companies and Industries II	Sato Yuriko, Saito Hirofumi, Takemura Jiro	1Q	
Global awareness and other breadth courses	LAW.X419	Communication Skills in Japanese Industries II	Takemura Jiro, Morikawa Junko, Kuwata Shigeki, Hayashi Miyuki, Nakamura Takashi, Kitaguchi Yoshiaki, Wakabayashi Hitoshi, Febry Muhammad	1Q	
Global awareness and other breadth courses	LAW.X416	Modern Japan	Kitamoto Yoshitaka, Inagi Shinsuke, Kamiya Itaru, Olaf Karthaus	2Q	
Global awareness and other breadth courses	LAW.X425	Global Leadership Practice	Ota Eri	2Q	

・Japanese courses

Please check the following web site of Japanese courses.

http://js.ila.titech.ac.jp/~web/japanese.html

For those attending classes remotely from home countries:
If you are currently not in Japan, please check the availability of textbooks (click here to check the designated textbook for each class <http://js.ila.titech.ac.jp/~web/courselist.html>) beforehand.
If the textbooks are not available in your country, please choose and reserve classes from among AOS (Attend from overseas) classes
<http://js.ila.titech.ac.jp/~web/courselist.html>, or the ones for which no textbook is specified.
Students who are in Japan or will be entering Japan can also take AOS classes.
We will not distribute any copies of textbooks which are commercially available.