

This is for your reference only.

Code	Course title	Semester	Quarter	Main Instructor	Course description
02a3693	Advanced Electric Devices	Fall Semester	3rd Quarter	ZHANG Ya	This course covers introduction current semiconductor device physics. 1.Introduction 2.Electrical properties for semiconductor: band theory 3.Electrical conductance for semiconductor: carrier density 4.Electrical conductance for semiconductor: doping 5.Electrical conductance for semiconductor – current 6.PN junction – space charge effect 7.PN junction – important values 8.PN junction – Minority carrier behavior 9.PN junction – current 10.MOS field effect transistor – MOS capacitor 1 11.MOS field effect transistor – MOS capacitor 2 12.MOS field effect transistor – output characteristics 13.MOS field effect transistor – CMOS
02a3695	Special Lecture on Electrical Engineering and Computer Science	Fall Semester	3rd Quarter	JAMES BALDWIN	This course aims to further develop students' oral and written communication ability in technical and scientific English. Special emphasis will be placed on acquiring the skills needed to prepare and deliver effective scientific presentations in English. Students will also have the opportunity to lead discussions on topics related to their field of studies and laboratory activities.
02a3697	Special Lecture on Electrical Engineering and Computer Science	Fall Semester	3rd Quarter	JAMES BALDWIN	This course aims to develop students' oral and written communication ability in technical and scientific English. Special emphasis will be placed on acquiring the skills needed to prepare and deliver effective scientific presentations in English. Students will also have the opportunity to lead discussions on topics related to their field of studies and laboratory activities.
02a3700	Special Lecture on Electrical Engineering and Computer Science	Spring Semester	1st Quarter	JAMES BALDWIN	This course aims to develop students' oral and written communication ability in technical and scientific English. Special emphasis is placed on acquiring the skills needed to prepare and deliver effective scientific presentations in English. Students will also have the opportunity to lead discussions on topics related to their field of studies and laboratory activities.
02a3701	Special Lecture on Electrical Engineering and Computer Science	Spring Semester	1st Quarter	JAMES BALDWIN	This course aims to develop students' oral and written communication ability in technical and scientific English. Special emphasis is placed on acquiring the skills needed to prepare and deliver effective scientific presentations in English. Students will also have the opportunity to lead discussions on topics related to their field of studies and laboratory activities.
02a4610	Graduation Thesis	Spring Semester	ONE-YEAR	YAMADA Hiroshi	This course is intended to obtain an experience of research planning, simulations, experimental skills, investigations, discussion, reading academic papers, and presentation in the field of electrical and electronic engineering.
02c1301	Introduction to Applied Chemistry	Spring Semester	1st Quarter	KANEHASHI Shinji	[Purpose] The purpose of this course is to provide students with the foundation necessary to study chemistry in the Department of Applied Chemistry, based on the basic knowledge of "Basic Chemistry" and "Chemistry" in high school. In addition, the opportunity to experience cutting-edge research conducted in the laboratories of the Department of Applied Chemistry and to imagine oneself as a researcher in the future will motivate students to study in this department. For this reason, we will incorporate laboratory visits in small groups that incorporate elements of active learning. [Summary] This course consists of an explanation of the collection of information necessary for self-study and specialized study, an introduction to the research content of each laboratory in the Department of Applied Chemistry, and a laboratory tour conducted in small groups. The introduction to the research content is given in rotation by the faculty members who lead the laboratories, and together with the opportunity to visit the laboratories, this course serves as an introduction to applied chemistry.

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02c1315	Experiments in Fundamental Science	Spring Semester	1st Quarter	TSUBOUCHI Akira	<p>Experiments in Fundamental Science is the first experimental lesson after entering university. Students learn basic experimental methods and attitude (safety management, report preparation, etc.).</p> <p>These experiments consist of two parts, "Experiments of Basic Chemistry" and "Experiments of Physics". Location: "Experiments of Basic Chemistry": Building 1, 3F, Rooms 301-306 "Experiments of Physics": Building 4, 2F, Rooms 201 and 204</p> <p>[Experiments of Basic Chemistry] Students will learn fundamental skills and knowledge of inorganic analytical chemistry. [Experiments of Physics] Students will learn basic knowledge of physical chemistry and experimental techniques of material science.</p> <p>After these experimental lesson, students will be ready to conduct your graduation research as an expert experimentalist.</p>
02c1316	Chemical English	Fall Semester	3rd Quarter	LOUIS Marine	<p>Marine Louis, associate professor from the department of Applied Chemistry will be in charge of this class. The instructor is a native French speaker, fluent in English, has contributed to English publications for many years, and has been teaching Chemistry laboratory practice in English in Japan for over 5 years. Some emphasize will be put on speaking and being able to communicate information. For this reason, this course is divided into two classes according to ability. As the class is organized during the new student orientation by the school board, the placement test will be conducted based on the results of the external examination, so students who wish to take classes will be educated between July 20th and September 20th. Please be sure to submit the score sheet to the committee (description of the course of engineering). If you have not submitted, you cannot take the course. This syllabus is subject to change due to lectures.</p> <p>The lecture is a basic class related to chemistry English and will be taught mainly in English but Japanese will be use when necessary.</p>
02c1318	Chemical English	Fall Semester	3rd Quarter	LOUIS Marine	<p>Marine Louis, an associate professor from the department of Applied Chemistry will be in charge of this class. The instructor is a native French speaker, fluent in English and has contributed to English publications for many years, and has been teaching Chemistry laboratory practice in English in Japan for 4 years. Emphasize will be put on conversation and dialogue will be held. For this reason, this course is divided into two classes according to ability. As the class is organized during the new student orientation by the school board, the placement test will be conducted based on the results of the external examination, so students who wish to take classes will be educated between July 20th and September 20th. Please be sure to submit the score sheet to the committee (description of the course of engineering). If you have not submitted, you cannot take the course. This syllabus is subject to change due to lectures.</p> <p>The lecture is an advanced class related to chemistry English and will be taught in English.</p>
02c3368	Literature Reading	Spring Semester	1st Quarter	KANEHASHI Shinji	<p>The first session of this lecture will be held on April 17 in 2025. To perform our own research, we often gain necessary knowledge and useful techniques of related research from scientific articles. The aim of this course is to improve reading comprehension ability of English scientific articles related to applied chemistry and materials and presentation skills, it is required every time to make a presentation of the contents understood from an English article as an assignment. It should be noted that students are divided into a small groups and attend a lecture by a different teaching stuff every week. Students must receive an article one week before each lecture and prepare to give a full presentation. In some cases, submission of the summary is required in advance.</p>

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02c4302	Applied Chemistry Seminar I	Spring Semester	1st Quarter	KANEHASHI Shinji	The aim of the course is to learn items necessary to promote the graduation study such as literature survey, presentation, discussion, experimental safety, and operation of scientific instruments in a seminar style. Students need to take this course along with Graduation Thesis, and learn mainly the following items: 1) Safety education, 2) understanding of the purpose and background of the study, 3) acquisition of knowledge and techniques necessary for the study. The format and schedule is dependent on each adviser, and active involvement in the course is very important.
02el0030	Integrated English	Spring Semester	1st Quarter	NIN Ri	This foundational course for TUAT English education provides the basic knowledge and skills required for university study. Students learn how to combine language skills and use them appropriately in academic contexts. The course places particular emphasis on listening and reading skills, while also offering opportunities to integrate these skills with writing and speaking.
02el0064	English Discussion	Fall Semester	3rd Quarter	SLAYBAUGH BROOKS	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0065	English Discussion	Fall Semester	3rd Quarter	ONWONA-AGYEMAN Siaw	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0066	English Discussion	Fall Semester	3rd Quarter	TOBY TRAUB	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0067	English Discussion	Fall Semester	3rd Quarter	MOORE JEFFREY MATTHEW	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0068	English Discussion	Fall Semester	3rd Quarter	SAKAMOTO Robin	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0069	English Discussion	Fall Semester	3rd Quarter	MARK KOPROWSKI	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0070	English Discussion	Fall Semester	3rd Quarter	HIGUCHI SONIA	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0071	English Discussion	Fall Semester	3rd Quarter	ADELAIDE K. VAMBE	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0072	English Discussion	Fall Semester	3rd Quarter	JAMES BALDWIN	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.

English-Taught Courses List (Faculty of Engineering)**As of May 2026****This is for your reference only.**

Code	Course title	Semester	Quarter	Main Instructor	Course description
02e10073	English Discussion	Fall Semester	3rd Quarter	SLAYBAUGH BROOKS	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.

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Code	Course title	Semester	Quarter	Main Instructor	Course description
02el0074	English Discussion	Fall Semester	3rd Quarter	ONWONA-AGYEMAN Siaw	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0075	English Discussion	Fall Semester	3rd Quarter	TOBY TRAUB	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0076	English Discussion	Fall Semester	3rd Quarter	MOORE JEFFREY MATTHEW	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0077	English Discussion	Fall Semester	3rd Quarter	SAKAMOTO Robin	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0078	English Discussion	Fall Semester	3rd Quarter	MARK KOPROWSKI	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0079	English Discussion	Fall Semester	3rd Quarter	HIGUCHI SONIA	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0080	English Discussion	Fall Semester	3rd Quarter	ADELAIDE K. VAMBE	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0081	English Discussion	Fall Semester	3rd Quarter	JAMES BALDWIN	Outline (English Discussion): This course aims to improve each student's basic speaking fluency and ability to effectively communicate in English through the discussion of a variety of general and academic topics. This course is mandatory for first-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0171	English Presentation	Spring Semester	1st Quarter	SLAYBAUGH BROOKS	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0172	English Presentation	Spring Semester	1st Quarter	MARK KOPROWSKI	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0173	English Presentation	Spring Semester	1st Quarter	HIGUCHI SONIA	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0174	English Presentation	Spring Semester	1st Quarter	ADELAIDE K. VAMBE	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.

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02el0175	English Presentation	Spring Semester	1st Quarter	SAKAMOTO Robin	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0177	English Presentation	Spring Semester	1st Quarter	JAMES BALDWIN	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0178	English Presentation	Spring Semester	1st Quarter	ONWONA-AGYEMAN Siaw	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0179	English Presentation	Spring Semester	1st Quarter	TOBY TRAUB	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0180	English Presentation	Spring Semester	1st Quarter	SLAYBAUGH BROOKS	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0181	English Presentation	Spring Semester	1st Quarter	MARK KOPROWSKI	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0182	English Presentation	Spring Semester	1st Quarter	HIGUCHI SONIA	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0183	English Presentation	Spring Semester	1st Quarter	ADELAIDE K. VAMBE	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0184	English Presentation	Spring Semester	1st Quarter	SAKAMOTO Robin	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0186	English Presentation	Spring Semester	1st Quarter	JAMES BALDWIN	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0187	English Presentation	Spring Semester	1st Quarter	TOBY TRAUB	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.

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02el0188	English Presentation	Spring Semester	1st Quarter	RIESER Lukas	This course aims to improve each student's ability to plan and deliver effective academic presentations in English. Special focus is given to improve students' presentation skills and Q&A abilities. This course is mandatory for second-year students as an introduction to the English curriculum of Tokyo University of Agriculture and Technology.
02el0190	Academic Reading	Spring Semester	1st Quarter	MOORE JEFFREY MATTHEW	Outline: The purpose of this course is twofold. The first aim is to provide students with opportunities to read scientific articles in English. The second aim is to provide opportunities for students to communicate in English about these scientific readings. Students will learn how to read and discuss scientific articles in English as well as talk about their own research interests. This course is offered as an advanced course in the English curriculum of Tokyo University of Agriculture and Technology.
02el0226	Academic Communication	Fall Semester	3rd Quarter	MOORE JEFFREY MATTHEW	In this course, students will discuss scientific topics and present scientific journal articles in English. Students will learn to read and understand the contents of scientific papers, and they will practice summarizing their contents in plain, easy-to-understand English. Students will choose papers that match their own research interests and practice discussing their content and presenting them to other students, receiving feedback from the professor on how to communicate science more clearly.
02ga0305	Global Advanced Science (Introduction to Seminars on Engineering)	Spring Semester	1st Quarter	YASUMURA Yuki	In Global Advanced Science, students learn in vivid detail about internationally competitive, cutting-edge research from internationally distinguished researcher, and about how research develops through scientist network and collaborations across the world. The lectures also include examples of how basic studies are fundamental to and applied to the cutting-edge research, and of the research environment in the globalized society. Through such experience, students are encouraged to consider the values of their studies and research in a broad context and towards their own future. This course will aid students to elevate their global awareness and improve their English communication skills in practice. This lecture course is included in Global Integrated Studies of the Liberal Arts and Fundamental Studies, and offers students opportunities to apply and integrate their knowledge and skills obtained in the foundation courses during their first two years in the university.
02ia0307	Practical Research on Technical Management(Life Science)	Spring Semester	2nd Quarter	NAKAHARA Kiochi	The science and technology—such as agricultural and engineering studies—pursued through learning and research at our university contribute widely to society through practical applications in collaborative activities with industry (industry-academia collaboration). Looking ahead, the perspective of the Sustainable Development Goals (SDGs)—comprising 17 goals and 169 targets aimed at realizing a sustainable world—is indispensable. Furthermore, collaboration with industry is essential for realizing a sustainable society. To create the society of the future together with industry, it is crucial to promote research that sets clear goals and focuses on targets (outputs) with significant economic and social impact, while taking into account future societal and industrial needs. In this course, we invite a lecturer from Suntory Limited in the food industry to deepen students' understanding of approaches to fostering bio-related innovation through lectures, case studies, and group exercises. The course aims to provide beginners with a comprehensive understanding of the process of returning research outcomes to society, covering the following topics:

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					1. Industry-Academia Collaboration and Social Implementation 2. Innovation for Creating a Future Society 3. Open Innovation as an Innovation Creation Activity This course is offered as part of the Global Liberal Arts Program and is taught by faculty with practical industry experience. The instructor has been directly involved in launching new business ventures through industry-academia collaboration within a corporate setting. The course includes lectures and exercises covering the differences between university-based basic research and corporate research, the importance of research activities and commercialization processes in the corporate sector, and the role of industry-academia collaboration.

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02ia0308	Practical Research on Technical Management(Informatics)	Spring Semester	2nd Quarter	MITANI Keiichiro	<p>The overall title of the intensive course is "DX Practices in Business Management" and will focus broadly on business management and its various issues using digital technology. The lecture will be interactive, with time for questions and student discussions.</p> <p>The intensive course will consist of two sessions over 2 days. Guest lecturers will be in charge of some of the lectures.</p> <p>This course is offered by a lecturer with extensive practical experience as an industry-academia Collaborative Class of Global Integrated Studies.</p>
02I2167	Technical English for Life Scientists I	Fall Semester	3rd Quarter	MORI Tetsushi	In any scientific field, it is important and necessary for one to be able to explain and present their research in the right English context. This course is designed for students to further improve their reading, writing, listening and speaking abilities particularly in the Biotechnology and Life Science field.
02I2168	Technical English for Life Scientists I	Fall Semester	3rd Quarter	MORI Tetsushi	In any scientific field, it is important and necessary for one to be able to explain and present their research in the right English context. This course is designed for students to further improve their reading, writing, listening and speaking abilities particularly in the Biotechnology and Life Science field.
02I3154	Technical English for Life Scientists II	Fall Semester	3rd Quarter	Paul Erik Lauritsen	<p>The main aims of the course are as follows:</p> <ol style="list-style-type: none"> 1. To understand the basic structure of scientific papers and the significance and importance of each section. 2. To identify the features of a good scientific paper and quickly find suitable research material. 3. Hints on how to read or extract information from a scientific paper. 4. To be able to explain a research topic and write an abstract.
02I3162	Technical English for Life Scientists I	Spring Semester	1st Quarter	VAVRICKA JR CHRISTOPHER JOHN	From 2024, this course will cover fundamentals and applications of enzyme engineering. Topics will include biochemistry fundamentals, organic biochemistry fundamentals, molecular structure and function, enzyme structure and function, enzymology, synthetic biology, metabolic engineering, bioproduction, modeling enzyme structures, docking and machine learning prediction of biological functions. This first year we will also focus on technical English related to Enzyme Engineering.
02I3180	Technical English for Life Scientists II	Fall Semester	3rd Quarter	TBD	<p>The main aims of the course are as follows:</p> <ol style="list-style-type: none"> 1. To understand the basic structure of scientific papers and the significance and importance of each section. 2. To identify the features of a good scientific paper and quickly find suitable research material. 3. Hints on how to read or extract information from a scientific paper. 4. To be able to explain a research topic and write an abstract.
02m4501	English for Science and Technology	Spring Semester	1st Quarter	JAMES BALDWIN	This course aims to develop students' oral and written communication ability in technical and scientific English. Special emphasis is placed on acquiring the skills needed to prepare and deliver effective scientific presentations in English. Students will also have the opportunity to lead discussions on topics related to their field of studies and laboratory activities.
02m4503	English for Science and Technology	Spring Semester	1st Quarter	JAMES BALDWIN	This course aims to develop students' oral and written communication ability in technical and scientific English. Special emphasis is placed on acquiring the skills needed to prepare and deliver effective scientific presentations in English. Students will also have the opportunity to lead discussions on topics related to their field of studies and laboratory activities.

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02md0247	Intercultural Communication	Fall Semester	3rd Quarter	HORIKIRI Yukiko	<p>This course aims to cultivate learners' abilities to communicate and manage tasks cooperatively with peers and collaborators from diverse linguistic and cultural backgrounds. Students first learn the theoretical background of intercultural communication and then apply the knowledge in a variety of intercultural communication contexts, namely linguistic and social approaches, science and technology, and research activities. Students will acquire the understanding and skills necessary to practice intercultural communication in scholarly activities.</p> <p>The course is offered in English as one of the multidisciplinary courses in Global Integrated Studies. It includes several discussion sessions and a presentation opportunity.</p>
02md0250	Japanese Science and Technology	Fall Semester	3rd Quarter	NOMA Tatsuo	<p>This course is intended to cultivate a better understanding Japanese Science and Technology among students. We focus on current science and technology issues in Japan. These lectures will not only provide students with an important foundation in science and technology, but also help them develop ideas of their own research. In this semester the development and status of Japanese science and technology is explained through a keyword "Material" which acted as several breakthrough in the innovations in the field of science and technology.</p> <p>This course is offered in English as one of the Multidisciplinary Courses of the Global Integrated Studies.</p>
02md0310	Inter-University Special Lecture II (Communicating Science)	Fall Semester	3rd Quarter	YASUMURA Yuki	<p>This course is designed to consider and evaluate the technological advances and their impacts on the society from various points of view, and to nurture the mindsets and skills to communicate with people who have different priorities and interests when discussing new technologies in the social context. This year, we will discuss food security, which is one of the major global issues we face today. We will learn modern biotechnologies that are applied in food production, and think about ways in which the stakeholders from different sectors of society and scientists can share views and ideas effectively and work together collaboratively.</p> <p>This course is offered as part of the Multidisciplinary Courses in Global Integrated Studies of the Liberal Arts and Fundamental Studies, and is also open to international students of STEP (Short Term Exchange Program).</p>
02md0311	Inter-University Special Lecture I (Global Communication)	Spring Semester	2nd Quarter	HORIKIRI Yukiko	<p>This course explores what is the appropriate and effective communication in a global society. By examining the communication used in specific social contexts, the students observe and analyze their own communication. The course includes group work and activities to share their thoughts and experiences.</p> <p>This course is offered in English as one of the Multidisciplinary Courses of the Global Integrated Studies, and is open to students from Tokyo University of Foreign Studies and the University of Electro-Communications.</p>
02md0313	Inter-University Special Lecture II (Physics in English ~What is a Wave? ~)	Fall Semester	4th Quarter	MISAWA Kazuhiko	<p>Physics is the study of the fundamental laws that explain all phenomena in nature. Various phenomena surrounding us can be explained by the basic principles and fundamental laws of physics. Moreover, if we understand the fundamental principles of physics, we can explain various phenomena in a common way.</p> <p>The objective of this lecture is to develop the ability to observe, analyze, and interpret familiar phenomena using the concept of "waves," which is the most universal and versatile among various principles in physics. By watching experimental video materials on "waves," students will be able to explain phenomena according to the basic procedures of natural science (experiment, observation, and discussion).</p>
02t8847	Physical and Energy Engineering	Fall Semester	3rd Quarter	SATRIA ZULKARNAEN BISRI	<p>We deal with some physics topics that are important in energy engineering. The topics include electromagnetic waves (or light) and energy, charged particles in electromagnetic fields, radiation physics, nuclear engineering, thermal engines, and heat pumps.</p>

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02t8848	Electronic Device Engineering	Fall Semester	3rd Quarter	SATRIA ZULKARNAEN BISRI	<p>This course covers the introduction to current semiconductor device physics.</p> <p>To gain solid understanding of:</p> <ul style="list-style-type: none"> • Basic properties of semiconductor materials • Basic physical phenomena in (micro)electronic devices • Working principles of mainstream integrated (micro)electronic devices • Working principles of semiconductor-based devices <p>Since nowadays scientific and technological advancements of semiconductor devices are global endeavors that require high capability of global communication, many parts of this course will also be delivered in English.</p>
02t8853	Mechanical Component Design	Fall Semester	3rd Quarter	IKEDA Koji	<p>* This course is limited to the inbound students of Semester-program. Students of other program are not accepted for this course.</p> <p>This course is designed to give students knowledge of the designer's needs to effectively help. The knowledge is about the role of each mechanical component, the required aspects, and the points to be considered for proper design. Students will be also exposed into the actual manufacturing process through short videos. Based on these basic knowledge, stress-stain analysis method will be introduced as general treatment. In this course, widely used and important mechanical components are focused, such as threads, gears, shafts, belts, brakes, dumpers, and bearings. Lubricants are also referred. As general theoretical analysis method, Airy's stress function is introduced with a case study. As a proof of knowledge achievement, task report is requested at the end of the semester.</p>
02t8864	Pattern Recognition and Machine Learning	Fall Semester	3rd Quarter	HOTTA Seiji	<p>Pattern recognition classifies, identifies or recognizes symbols, structures or any type of information represented, conveyed or even hidden in a set of signals which are redundant and often noisy. It is theoretically and scientifically important to learn human abilities of pattern recognition and practically important to realize smooth human machine interaction.</p>
02u2474	Electrical Device Physics and Engineering	Fall Semester	3rd Quarter	SATRIA ZULKARNAEN BISRI	<p>This course covers the introduction to current semiconductor device physics.</p> <p>To gain solid understanding of:</p> <ul style="list-style-type: none"> • Basic properties of semiconductor materials • Basic physical phenomena in (micro)electronic devices • Working principles of mainstream integrated (micro)electronic devices • Working principles of semiconductor-based devices <p>Since nowadays scientific and technological advancements of semiconductor devices are global endeavors that require high capability of global communication, many parts of this course will also be delivered in English.</p>
02u3460	Electrical and Electronic Material Engineering	Spring Semester	1st Quarter	SATRIA ZULKARNAEN BISRI	<p>Various elements in the periodic table will be given, and materials are classified in terms of materials used in commercial products in smartphones, PC, solar cells, cameras, light emitting diodes, and various sensors. Characteristics of metal, insulators, semiconductors, and ionic solids will be given, and fundamental properties will be explained. Based on the lectures, students themselves will perform material surveys. This lecture aims to review and further understand the electromagnetism, quantum mechanics, device engineering, and thermodynamics that have been studied so far in practical application settings.</p>