KUAS

KYOTO UNIVERSITY of ADVANCED SCIENCE

FACULTY OF ENGINEERING

2023 Prospectus

Kyoto, Japan

Why Japan?

Japan, a mountainous island country located in the northwest Pacific Ocean off the East Coast of the Asian Continent, is one of the safest and most urbanized countries in the world. Surrounded by the sea and brimming with nature, Japan is an economic powerhouse where the beauty of each season coexists with modern technology.

Japan has made significant contributions to contemporary science and technology, notably in the field of robotics, nanotechnology, and medical science. Japan's primary industries are automobiles, consumer electronics, and computers, making Japan a great place to learn engineering.

Culturally, Japan is renowned for its popular culture, particularly its manga, animation and video games. Japan is also home to many world-famous cuisines.

With 24-hour convenience stores, punctual public transportation, and an excellent healthcare system, international students will discover that Japan is an incredibly comfortable place to live and study.

▸ **Population: 11th in the world**

126.5 million

▸ **Land area: 8th in Asia**

380,000 km²

▸ **Gross national income: the 3rd highest in the world**

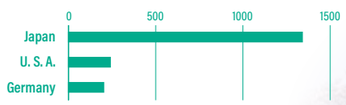
(mofa.go.jp "World Statistics" 2021)

3 Things You Need to Know About Japan

▸ Longevity

Japan is known as the country with the longest average life expectancy in the world. This is because the public medical system is well-organized and everyone has access to advanced medical care. But it is not only the people who live long. Japan has the largest number of companies in the world that have been in business for more than 200 years. The oldest company has existed for more than 1,400 years. This means that many Japanese companies have general wisdom, while retaining the ability to adapt and survive in new times like no other country.

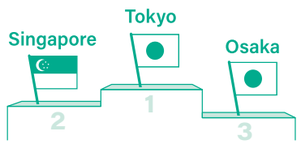
Number of companies in business for more than 200 years



(2020 Nikkei BP)

▸ Safety

Japan is renowned as a safe country, and Japan's cities consistently rank as some of the safest cities in the world.



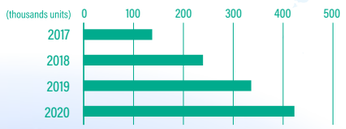
(2019 Economist Intelligence Unit)

Speaking of safety, Japan is also known for the high quality of its industrial products. Japanese are frequently featured on lists of the world's safest cars, account for more than 30% of all vehicles.* * 2022 TOP SAFETY PICKs/ IIHS.org

▸ Hi-Technology

Japan is the world's number one industrial robot manufacturer. 45% of the robots operating in factories around the world are made in Japan. The global robotics market is expanding every year. Japan's high-tech industry is expected to continue to grow and will require a large number of engineers in the future.

Operational Stock of Industrial Robots - Japan



(2021 World Robotics)

Why Kyoto?

Kyoto is located on the main island of Japan, Kyoto was the capital of Japan for more than 1,000 years of its 1,200-year history. Today, that beautifully preserved culture coexists alongside a vibrant student community and a unique technology industry that has grown up between the thousands of shrines and temples that dot the city.

Motors, robots, video games, and health care equipment are just a few of the products that Kyoto now produces alongside lacquerware, tea and silk kimono.

At KUAS, we seek to master the knowledge of the past and the technologies of today to nurture our students into diverse, world-class citizens and engineers.

Geographically speaking, Kyoto City is the perfect size if you want to go to school in the city. The entire city is accessible by bicycle, and the price of living is more affordable than nearly all other major cities in Asia. On the other hand, Kansai Airport is only a short bus ride away, making it a comfortable and accessible place for international students to live.

4 Reasons to Study in Kyoto

▸ International

9,000

International students

▸ Academic

10%

The highest student-to-population ratio in Japan

▸ Innovative

12

Novel laureates

▸ Industrial

A hub of world-famous high-tech industries

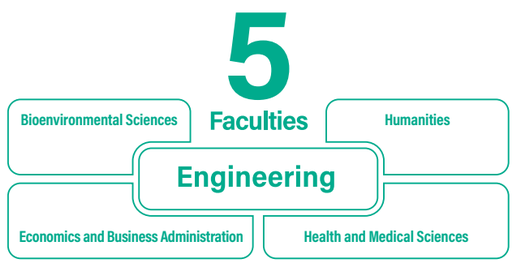
Why KUAS?

Kyoto University of Advanced Science (KUAS) is an accredited private university which was founded in 1969 in Kameoka City in the west of Kyoto Prefecture. In addition to this, KUAS has recently established a new campus in Uzumasa, Kyoto City. In 2019, to commemorate its 50th anniversary, the name of the university was changed.

Furthermore, in April of 2020, KUAS established the Faculty of Engineering where students can learn the most advanced technologies through a practical study program. At KUAS' Faculty of Engineering, students will be able to study a wide range of engineering fields and prepare themselves to compete on the global stage.

Top-tier professionals who can create useful innovations for the future are in high demand all over the world. KUAS will provide its students a professional and practical education to help them grow into leaders of innovation and ensure that they are capable of taking on the diverse challenges that society faces.

KUAS has two campuses in Kyoto; one in Uzumasa and another in Kameoka. Each of these campuses has unique characteristics and facilities, allowing KUAS students to get the full college life experience.



With the addition of our new Faculty of Engineering, KUAS was reborn into an active contributor to essential academic and economic fields. All five faculties will play key roles in addressing the current and future needs of society.





Faculty	Engineering	Economics & Business Administration	Humanities	Bioenvironmental Sciences	Health & Medical Sciences
Course of Study	• Department of Mechanical and Electrical Systems Engineering	• Department of Economics • Department of Business Administration	• Department of Psychology • Department of History and Cultural Studies	• Department of Bioscience and Biotechnology • Department of Bioenvironmental Design • Department of Agriculture and Food Technology	• Department of Nursing • Department of Speech and Hearing Sciences and Disorders • Department of Health and Sports Sciences
Graduate Program	• Graduate School of Engineering	• Graduate School of Economics • Graduate School of Business Administration	• Graduate School of Human Culture	• Graduate School of Bioenvironmental Sciences	
Campus	[✓] UZUMASA [ ] KAMEOKA	[✓] UZUMASA [ ] KAMEOKA	[✓] UZUMASA [ ] KAMEOKA	[ ] UZUMASA [✓] KAMEOKA	[✓] UZUMASA [✓] KAMEOKA
Language of Instruction	ENGLISH	JAPANESE	JAPANESE	JAPANESE	JAPANESE

What is KUAS Engineering?

Be a Street-Smart Global Engineer

Department of Mechanical and Electrical Systems Engineering
Bachelor's Program 4 years
Division of Mechanical and Electrical Systems Engineering
Master's Program 2 years
Doctoral Program 3 years

Enrollment
September

Kyoto University of Advanced Science (KUAS) features an engineering program with close ties to the manufacturing industry in a country that is globally acclaimed for its engineering ingenuity. The KUAS Faculty of Engineering represents an all-new, all-English model for engineering education in Japan.

The Faculty of Engineering was established in April 2020 with a team of internationally distinguished faculty members and active professional engineers. Focused on the technology that will help shape our future—electric vehicles, drones, robots, AI, machinery, motor-related solutions, power generation systems, and much more—KUAS is now welcoming the world's next generation of engineers to Kyoto.

To create state-of-the-art technology, it is essential to provide state-of-the-art education. That is why the ultimate goal of KUAS' engineering program is to provide students with the immediately applicable real-world skills that will allow them to excel in the modern world of engineering.

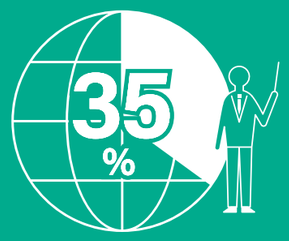
From an engineer's perspective, Kyoto provides a uniquely stimulating environment for building a career. Kyoto is known as a city of industry where globally top-performing mechanical and electronics companies keep their headquarters. Specializing in the fields of mechanical, electrical, and mechatronics technology, the KUAS Faculty of Engineering offers an outside-in approach that considers the current trends of the industry, allowing students the opportunity to work with real engineers in Kyoto's full-fledged manufacturing industry.

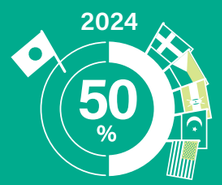
At KUAS, Faculty of Engineering students engage with real companies and explore a landscape of career opportunities available in Japan and beyond before they even graduate. Meanwhile, KUAS ensures that this industry involvement allows students to springboard into exciting careers after graduation. This is possible because of the many world-leading engineering firms based in Kyoto.

KUAS Engineering in Numbers

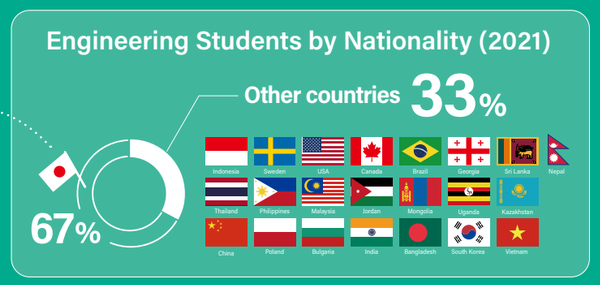
The KUAS Faculty of Engineering officially opened in April of 2020 with a brand new faculty building.

KUAS offers the first multidisciplinary all-English Faculty of Engineering in Japan.





35% of the professors in the KUAS Faculty of Engineering are from overseas, and KUAS has set a goal to create a campus community that is 50% international students by 2024.



4 Pillars

1 All-English

KUAS offers a trailblazing engineering program located within Japan but taught entirely in English.

2 Intensive Japanese language courses

KUAS provides all international students with intensive Japanese language courses to broaden their future career paths at no additional cost.

3 A strong, practical program

KUAS offers multidisciplinary engineering courses, team-based learning, and capstone projects that uniquely prepare students for success in real-world industries.

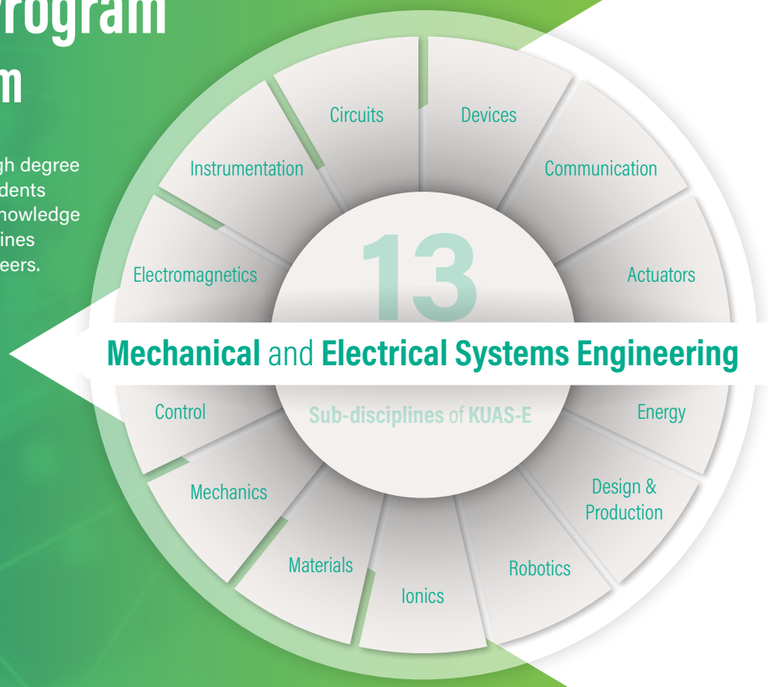
4 Exceptional career opportunities

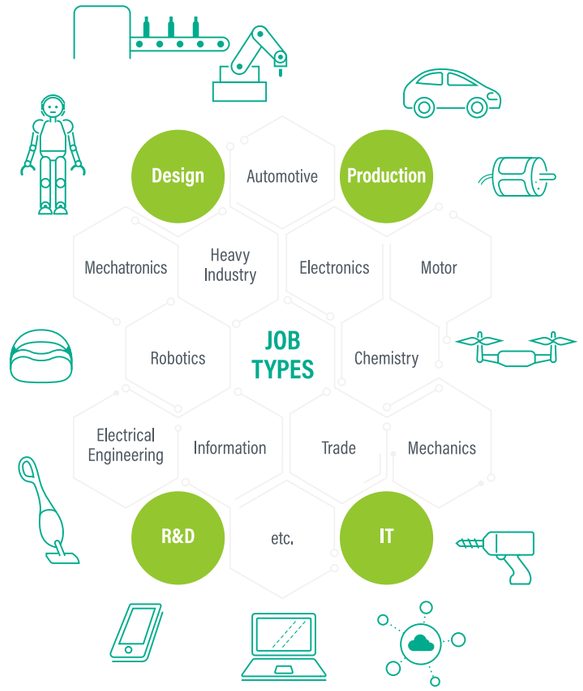
KUAS provides exceptional career support for students seeking careers both in Japan and internationally by utilizing its strong industry ties and professional advisors.

Undergraduate Program
Academic Curriculum

KUAS' Faculty of Engineering offers a high degree of flexibility in specialization so that students can have exposure to a wide range of knowledge and gain expertise in the various sub-disciplines necessary for professionally balanced engineers.

With this systematic, multidisciplinary program that crosses 13 fields, students can acquire collaboration skills, practical problem-solving skills and a global perspective.





Course Models

Electric Vehicles

Faculty-wide Courses

- Electromagnetic Theory
- Electromagnetic Theory Exercise
- Fundamentals of Electric Motors
- Control Principles of Electrical Motors
- Introduction to Electrochemistry
- Introduction to Battery Engineering
- Semiconductor Engineering
- Power Electronics Engineering
- Actuator Systems
- Electric Circuits
- Analog Electronic Circuits
- Introduction to Sensors
- Introduction to Scientific Measurement
- Electric Power Transmission and Distribution

Experiments & Laboratory Exercises

- Exercise for Machine Shop Practice
- Mechatronics Laboratory (Robot: basic)
- Mechatronics Laboratory (Energy)

Comprehensive Practical Exercises

- Pre-Capstone Project 1&2
- Capstone Project 1&2

Robotics

Faculty-wide Courses

- Introduction to C Programming
- Introduction to C Programming Exercise
- Logic Circuits
- Introduction to Mechanisms and Mobile Robots
- Introduction to Robotic Manipulators
- Introduction to Scientific Measurement
- Digital Control Engineering
- Classical Control Engineering
- Modern Control Engineering
- Introduction to Sensors
- Analog Electronic Circuits
- Actuator Systems
- Electric Circuits
- Fundamentals of Electric Motors

Experiments & Laboratory Exercises

- Exercise for Machine Shop Practice
- Mechatronics Laboratory (Robot: basic)
- Mechatronics Laboratory (Robot: adv.)

Comprehensive Practical Exercises

- Pre-Capstone Project 1&2
- Capstone Project 1&2

- GREEN = mandatory subjects
- GREY = electives

		1st semester	Term break (Feb & Mar)	2nd semester	Term break (Aug & Sep)	3rd semester	Term break (Feb & Mar)	4th semester	Term break (Aug & Sep)	5th semester	6th semester	7th semester	8th semester
University-wide Courses	Future Design Courses					• Future Design		• Future Design		• Future Design			
	Civic and Liberal Arts Courses					• Civic and Liberal Arts		• Civic and Liberal Arts		• Civic and Liberal Arts			
	Japanese Language Courses	• Basic Kanji and Vocabulary I • Basic Listening and Conversation I • Basic Reading I • Basic Writing I • Basic Grammar I	• Basic Kanji and Vocabulary II • Basic Listening and Conversation II • Basic Reading II • Basic Writing II • Basic Grammar II	• Adv. Kanji and Vocabulary • Adv. Listening and Conversation • Adv. Reading I	• Adv. Reading II • Adv. Writing	• Comprehensive Japanese I • Business Japanese I • Newspaper Reading	• Comprehensive Japanese II • Business Japanese II • Research Paper Reading						
	Startup Courses	• Startup Seminar		• Startup Seminar									
	Career Education Courses					• Career Design			• Internship • Overseas Training • Service Training				
	Sports Courses	• Sports and Life skills		• Sports and Life skills		• Sports and Life skills							• Sports and Life skills
Engineering Courses	Faculty-wide Courses	• Introduction to Mechatronics Engineering Engineering Physics 1 • Exercises • Calculus and Linear Algebra 1 • Exercises • Information Literacy • Introduction to Numerical Analysis Programming		• Engineering Physics 2 • Exercises • Calculus and Linear Algebra 2 • Exercises • Algorithmic Thinking and Programming with Python • Exercises		• Ordinary Differential Equations • Exercises • Introduction to C Programming • Exercises		• Vector Calculus • Exercises • System Programming with C • Exercises		• Fourier Analysis and Partial Differential Equations • Exercises • Digital Signal Processing • Exercises	• Complex Analysis, Probability and Statistics • Exercises	• Intellectual Property	
	Pillar-specific Courses			• Fundamental Mechanics • Exercises		• Mechanics of Materials • Exercises • Electromagnetic Theory • Exercises • Fundamentals of Electrical Motors		• Machine Design • Exercises • Intro to Mechanisms and Mobile Robots • Classical Control Engineering • Introduction to Physical Chemistry • Exercises • Control Principles of Electrical Motors • Semiconductor Engineering • Electric Circuits		• Introduction to Production Engineering • Introduction to Robotic Manipulators • Introduction to Scientific Measurement • Modern Control Engineering • Introduction to Electrochemistry • Power Electronics Engineering • Analog Electronic Circuits	• Introduction to Sensors • Digital Control Engineering • Introduction to Battery Engineering • Actuator Systems • Electric Power Transmission and Distribution • Logic Circuits • Introduction to Communication Engineering	• Electric Power Generation and Transformation • Introduction to Information Engineering	
	Experiments & Laboratory Exercises			• Introduction to Design		• Exercise for Machine Shop Practice		• Mechatronics Laboratory (Robot: basic)		• Mechatronics Laboratory (Energy)	• Mechatronics Laboratory (Robot: advanced)		
	Comprehensive Practical Exercises							• Pre-Capstone Project 1		• Pre-Capstone Project 2	• Capstone Project 1 • Laboratory Project 1	• Capstone Project 2 • Laboratory Project 2	

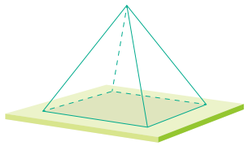
* Exact curriculum and course names subject to change.
This curriculum map represents the planned curriculum for students enrolling in the fall.

4 Stones Project

KUAS encourages students to gain hands-on experience in four projects to become street-smart global engineers. Students can start their own projects and compete in various competitions, or work with real companies to tackle industrial challenges. By cultivating creativity and flexible thinking, students will be able to play an immediately effective role in society after graduation. This practical training is the essence of KUAS Engineering.

Flagstone

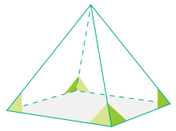
Anytime | Extracurricular Activity



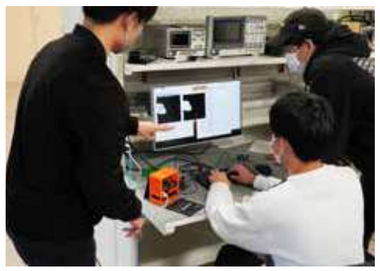
A “flagstone” is a paving stone that is often used in building roads and paths. The Engineering Building at KUAS provides the perfect environment for prototyping little ideas. Whenever something inspires a student to create something, they are free to formulate a project and start creating. For example, students can make electronic circuits in the Electronic Workshop and make bodies using 3D printers in the Science Plaza, and assemble them to build small robots or drones. Faculty members and instructors who are experts in various fields will also support students in these endeavors.

Cornerstone

Anytime | Extracurricular Activity



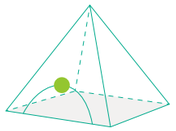
A “cornerstone” is a foundational building block and an essential part of architecture. For students who want to take on a long-term, large-scale team project, KUAS offers the cornerstone project. Faculty guidance and equipment are available, as well as project funding. The cornerstone project allows students to work on a full-scale engineering project while still in school, developing and executing their project within a limited budget and time.



One of the cornerstone projects launched by the first group of students is Akikomi. Akikomi is a classroom surveillance system developed in response to the need for “social distancing” during COVID-19, so that vacant classrooms around campus can be found easily and remotely. This innovative system focusing on an important social issue won the undergraduate prize in the Student Research Competition at the 2020 IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE).

Keystone (Pre-capstone)

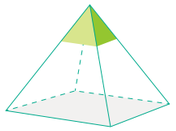
4-5th Semester | Mandatory Subject



A “keystone” is the important wedge-shaped stone at the top of an arch. The keystone project is also referred to as the pre-capstone project* and is the first step towards a career as a full-fledged engineer. Students work in teams to solve problems provided by partner companies with the support of faculty and industry professionals. Through this experience, students improve their teamwork and communication skills while deepening their understanding of the abilities and knowledge they need to acquire.

Capstone

6-7th Semester | Elective Subject



A “capstone” is the last stone placed on the top of a pyramid. The capstone project is the culmination of the KUAS engineering program and is even more of a challenge than the keystone project. Students must research the actual business of the partner company and use their own initiative to find and solve hidden problems. Through this industry experience, students can develop the ability to recognize social issues and solve them by applying the skills and knowledge they have obtained throughout their education.

▶ Choose a company

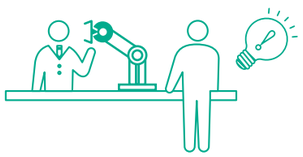
KUAS has partnered with more than 50 companies to provide our students with challenges. Students can choose the challenge they want to take on from companies like machinery manufacturers, electrical equipment manufacturers, semiconductor equipment manufacturers, and more.

▶ Get out in the field

“The key to the solution is in the field!”

Visit companies and learn about the background of the problem they are facing. Then, craft a plan to reach the finish line with your team mates.

▶ Analyze and prototype

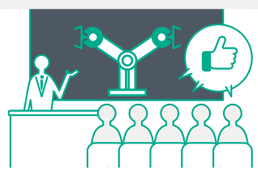


Modern manufacturing is a combination of complex technologies. A variety of ideas and creative innovation are needed to accomplish goals. Discuss your solution with lecturers and corporate engineers and create prototypes in our workshop.

▶ Improve

Refining an idea from multiple perspectives is key. Students will need to procure materials and parts as well as inspect deliveries. Processing, assembly, preliminary testing, main testing, data collection, data analysis, result analysis, and summarizing are all tasks that students will need to master.

▶ Propose



After lots of discussion, analysis and modifications, you will complete your project by delivering a proposal to professionals at a real company. If your proposal is accepted, it may be integrated into an actual product!

Partner Companies

Nidec Corporation	Shimadzu Corporation	CASTEM Co., Ltd.	Matsui Seisakusyo Inc.
ROHM Co., Ltd.	Deloitte Tohmatsu Consulting LLC	Monozukuri Ventures Co., Ltd.	and more.
SCREEN Holdings Co., Ltd.	NIPPON SYSTEMWARE Co., Ltd.	MICRONIX Co., Ltd.	

Graduate Programs
Academic Curriculum

The Kyoto University of Advanced Science Graduate School of Engineering seeks to face the rapid structural reforms in society and industry head-on. At KUAS, our faculty and staff seek to nurture engineers with superior skills and knowledge so that they can become the next century's leaders in science and technology.

All graduate engineering students at KUAS belong to a research laboratory and learn in an "on-the-job" environment under globally active professors and industry professionals.

This method, matched with cutting-edge facilities, is ideal for developing students into specialists in fields including power control systems, devices, motors, and more.

The KUAS engineering graduate programs aim to transcend conventional methods and transition to a comprehensive approach where students establish new systems and concepts based on multiple ideas from different academic disciplines. The program of the KUAS Graduate School of Engineering is based on the four fields of materials, energy, information and systems, with each research field correlating and overlapping with the others. Students can seek expert advice from specialists outside their own field, which can lead to new ideas. Students can learn how to innovate professionally while expanding their integrated knowledge beyond the boundaries of their major. At KUAS, it is our mission to nurture these comprehensive thinkers and enable them to create new technology platforms for decades to come.

Master's Program:

Students can gain advanced knowledge and expertise in areas such as electrical, electronic, mechanical, and electrochemical engineering, all of which are indispensable to future professionals working in electromechanical fields.

Courses		Credits
Scientific English		4
Specialized	Core	8 or more
	Advanced	6 or more
Research (incl. Exercise)		16
Total:		**34 or more**

- GREEN = mandatory subjects
- GREY = electives

		1st semester	2nd semester	3rd semester	4th semester
Language	Sci. English	• Scientific English	• Scientific English		
Core Specialized Courses		• Adv. Mechanical Electrical System Engineering	• Adv. Mechanical Electrical System Engineering		
	Materials	• MEMS Technology and Materials	• Physics and Chemistry of Electronic Materials		
	Energy	• Wind Power Technology			
	Information		• Computer Math for Graduate Engineers		
	Systems		• Advanced Robotics		
Advanced Specialized Courses	Materials				• Advanced Computational Materials Science
	Energy			• Computer-Aided Design of Semiconductor Power Devices & Modules	• Enabling Tech. of Solid-State Power Conversion
	Information			• Scripting Language and Virtual Machine	
	Systems			• Remote Sensing	• Theory of System Design
Research Activity Courses	Fundamental Research	• Advanced Exercise	• Advanced Exercise	• Advanced Exercise	• Advanced Exercise
	Practical Research	• Advanced Research	• Advanced Research	• Advanced Research	• Advanced Research

* Exact curriculum and course names subject to change

Doctoral Program:

Students will acquire greater competency in developing their problem-solving skills based on a variety of academic trends and demands from society while also gaining a sophisticated understanding of and expertise in the field of electromechanical systems.

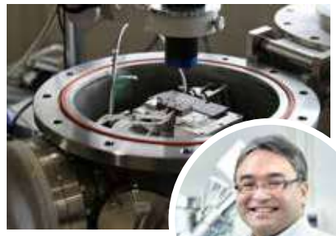
Courses	Credits
Scientific English	4
Specialized	8 or more
Research Activity	24
Total:	**36 or more**

- GREEN = mandatory subjects
- GREY = electives

		1st semester	2nd semester	3rd semester	4th semester	5th semester	6th semester
Language	Sci. English		• Scientific English		• Scientific English		
Specialized Courses	Materials	• MEMS Technology and Materials	• Physics and Chemistry of Electronic Materials • Advanced Computational Materials Science		• Advanced Lecture of Mechanical and Electrical Systems (Materials Science)		
	Energy	• Wind Power Technology • Computer-Aided Design of Semiconductor Power Devices and Modules	• Enabling Tech. of Solid-State Power Conversion		• Advanced Lecture of Mechanical and Electrical Systems (Energy Engineering)		
	Information	• Scripting Languages and Virtual Machines	• Computer Math for Graduate Engineers	• Advanced Lecture of Mechanical and Electrical Systems (Information Engineering)			
	Systems	• Remote Sensing	• Theory of System Design • Advanced Robotics	• Advanced Lecture of Mechanical and Electrical Systems (System Engineering)			
Research Activity Courses	Fundamental Research	• Advanced Exercise	• Advanced Exercise	• Advanced Exercise	• Advanced Exercise	• Advanced Exercise	• Advanced Exercise
	Practical Research	• Advanced Research	• Advanced Research	• Advanced Research	• Advanced Research	• Advanced Research	• Advanced Research

* Exact curriculum and course names subject to change

Dr. Nakamura
Dr. Horii
Dr. Imai
Dr. Namazu
Dr. Matsumoto



Dr. Namazu

Elucidating the physical properties and functions of nanomaterials invisible to the naked eye with our proprietary technology

Dr. Namazu's research focuses on measuring the strength of objects several nanometers in size and exploring the new properties that emerge when materials are nanosized. These are supported by his one-of-a-kind experimental techniques that integrate micro-machines and electron microscopes. These world-class proprietary technologies enable us to skillfully manipulate microscopic objects and contribute to the next generation of semiconductor and automotive industries as well as medical technology.

Dr. Castellazzi
Dr. Takahashi
Dr. Kishida
Dr. Kucuk

Dr. Kucuk

Contributing to environmental issues through smart motor and generator technologies

Increasing the efficiency of motors used in electric vehicles and drones will reduce the consumption of fossil fuels and prevent global warming. Dr. Kucuk's laboratory aims to develop highefficiency motors using new materials and smart control technology, as well as compact and efficient generators that enable low-cost power generation from renewable energy sources.

Materials
Energy
Information
Systems

Dr. Tabata
Dr. Kawakami
Dr. Piumarta
Dr. Liang
Dr. Sera
Dr. Nishi

Dr. Liang

Measuring Stress Abnormalities in the Brain to Determine the Causes of Sleep Disorders

Dr. Liang combines state-of-the-art wearable optical brain imaging technology with advanced big data analysis methods to measure brain activity during sleep and search for stressrelated abnormalities. Although it is difficult to measure invisible phenomena, elucidating the causes of stress-induced sleep disorders and the areas of the brain that need to be treated is essential for people to live healthy lives.

Dr. Oki
Dr. Fukushima
Dr. Salem
Dr. Nisar
Dr. Sato

Dr. Nisar

Developing robots to make online technology safer and more accurate

Dr. Nisar is conducting research and development of wearable robots that enable advanced robotic control in preparation for the spread of "on-line surgery," in which surgeons will remotely control surgical robots. Dr. Nisar's laboratory is developing a VR environment to train users to handle surgical robots, and a robotic glove that provides a sense of touch to its wearer, which is important during surgery but has been difficult to achieve until now.

Research Highlights

The professors teaching at KUAS are specialists in a diverse range of fields. The above are just a few examples. To learn more, please visit the official KUAS website and explore the Faculty and Research page.

www.kuas.ac.jp/en/faculty-of-engineering/faculty-and-research/

Faculty

Dean's message

Prof. Osamu Tabata

Dean of Faculty of Engineering

It gives me great pride to introduce our extraordinary Kyoto University of Advanced Science Engineering Programs (or "KUAS-E" for short). As the founding dean of KUAS-E, I had the privilege to create our entire curriculum and educational approach from scratch. In 2020, my hopes and dreams for the perfect engineering school became reality, right here in Kyoto, Japan. Now, it's your turn. I heartily encourage you to join us, and utilize KUAS-E to discover your hopes and dreams. Then, nurture those dreams into reality, and use them to carve a future of your own.

The way ahead is here. Join us at KUAS, and "Become a Street-Smart Global Engineer"!

And here is one more important thing: As the name implies, our university is located in Kyoto, a beautiful city brimming with culture, history and nature. I encourage you to make connections with the people of Kyoto, and enjoys your university life to the fullest. I look forward to seeing you on campus!

Dr. Osamu Tabata
MEMS, NEMS, DNA Nanotechnology

Dr. Alberto Castellazzi
Power Electronics, Power Semiconductor Devices, Packaging, Thermal Management

Dr. Fuat Kucuk
Electrical Engineering, Electrical Machines, Power Electronic Circuits, Renewable Energy Conversion, Electric Vehicles

Dr. Hiroaki Fukushima
Control Engineering, Robotics

Dr. Hiroshi Kawakami
System Design, Systems Engineering, Mechanical Engineering

Dr. Ian Piumarta
Meta-programming, Reconfigurable Systems, Embedded and IoT Technologies

Dr. Ippei Kishida
Computational Materials Science, Battery Engineering, Ionics

Dr. Kazuo Oki
Remote Sensing, Drone Measurement, Sustainable Watershed Management

Dr. Koichi Nakamura
Quantum materials science, Theory of Electronic States, Nanomaterials

Dr. Martin Sera
Mathematics, Complex Analysis, Complex Geometry

Dr. Masayuki Nishi
Inorganic Material Chemistry, Nanomaterials, Synthesis and Processing, Optical Materials, Glasses, Ceramics

Dr. Ryo Takahashi
Electrical Engineering, Information and Communication Engineering, Statistical Physics

Dr. Ryosuke Matsumoto
Solid Mechanics, Computational Mechanics, Strength and Fracture of Materials, Atomic Simulation

Dr. Salem Ibrahim Salem
Remote Sensing, Water Resources and Environment, Water Quality, Deep Learning, Data Simulation, Voice Recognition

Dr. Shigeru Horii
Materials Science, Solid-state Physics

Dr. Tadayuki Imai
Optoelectronic Devices, Optical Crystals, Dielectrics, Holography

Dr. Takahiro Namazu
Nanomechanics, Nanotechnology, Functional Materials

Dr. Yoshihiro Sato
Robotics, Computer Vision, VR/MR

Dr. Zilu Liang
Pervasive Computing, Wearable Computing, Personal Informatics, Digital Health

Dr. Hirotsugu Matoba
Mechanical Engineering, Production Engineering

Dr. Satoru Emura
Signal Processing (adaptive signal processing and array signal processing)

Dr. Sajid Nisar
Robotics, Mechanism Design, Haptics, Flexible Manipulators

Career

Career Design Program

KUAS seeks to nurture all of its students into young professionals who can act independently to achieve their goals. We provide numerous opportunities to communicate with companies and working people in order to help our students adapt to social change and find purpose in their career. By doing this, students can obtain the skills necessary to create an ideal future for themselves.

KUAS also offers active-learning style classes to prepare students for job hunting in Japan. These help students to grow their understanding of industries, companies, and occupations. In addition, they empower students to develop a recognition of the skills and abilities they have gained during their student life, and how they relate to acquiring employment.

Finally, KUAS encourages students to engage in self-exploration while building their careers with the assistance of our professional career support staff.

Internship Program

KUAS works with companies both in Japan and abroad to offer internship programs specifically designed for our students. More than 80 Japanese and 30 overseas companies* offer internships to KUAS students, allowing them to gain experience in a wide variety of industries.

Participating in an internship program and acquiring knowledge of the real world will give students a great advantage in finding their own specialties in their future.

*As of 2021

Partner Universities

KUAS promotes innovative research programs through partnerships with many of the world's leading universities.
The following universities are KUAS research partners.

Europe

Serbia
- University of Novi Sad

Austria
- Graz University of Technology

Germany
- Technical University of Dortmund

Sweden
- Södertörn University

France
- ESIEE Paris
- National Polytechnic Institute of Toulouse

Asia

South Korea
- Seoul National University

China
- Zhejiang University

Taiwan
- National Cheng Kung University

North America

United States
- University of Hawai'i at Manoa
- Ohio State University
- Tufts University

Oceania

Australia
- University of Technology Sydney

Facilities

The new South Engineering Building on Uzumasa Campus was constructed to coincide with the establishment of our new Faculty of Engineering in 2020.

The South Engineering Building is five stories tall and one story underground, and is located adjacent to our new international student dormitory.

The machine workshop, which can process all kinds of materials from metals to resins using the latest machines and tools, is available to students 24 hours a day. The electrical and electronic workshop is equipped with mechatronics equipment and a circuit production environment. There is also a large library that is ideal for self-study as well as group discussions. Furthermore, open-layout learning commons designed to encourage communication among students are available on almost every floor. These and many other state-of-the-art facilities function as a training space for our engineers to cooperate across research areas, backgrounds and cultures.


Engineering Building


Machine Workshop


Lecture Room

Science Plaza


Sagano Hall

Learning Commons


Electronic Workshop


Computer Workshop


Prayer Room


Terrace

Library

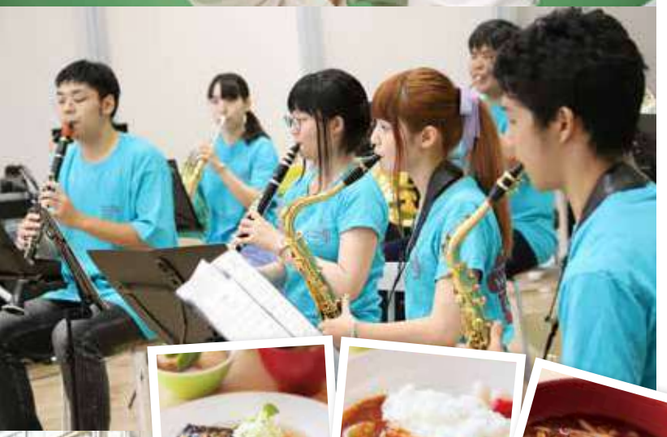

Teaching Laboratory


Laboratory

Student Life

KUAS is located on two campuses: the new Uzumasa campus, which is easy to commute to from Kyoto City, and the vast Kameoka campus, which is located in the mountains of western Kyoto Prefecture. Uzumasa campus hosts KUAS' new, high-tech Engineering Building alongside an International Student Dormitory, two libraries, a bookstore, and more. Meanwhile, the Kameoka campus houses many sporting facilities such as tennis courts, a gym, and a baseball field. Both campuses feature convenience stores and cafeterias with lots of healthy, affordable meals.

All students are free to travel between campuses to study, socialize, exercise, and participate in extracurricular activities.



Main Club Activities

- Archery
- American Football
- Karate
- Kyudo
- Cricket
- Kendo
- Baseball
- Soccer
- Judo
- Powerlifting
- Table Tennis
- Rugby
- Film Society
- Tea Ceremony Society
- Brass Band
- Manga Society

Dormitory

KUAS provides several dormitories that are located on or near campus and each room is fully furnished, making it easy for international students to begin their lives in Kyoto. Residents of the dormitory hail from many different countries, allowing students to deepen their understanding of diverse cultures and values.

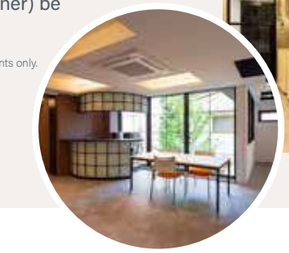
The International Student Dormitory Residence Uzumasa A

Residence Uzumasa A is attached to the South Engineering Building on Uzumasa Campus, making it a very convenient place to live. The South Building features a library and workshops that are open 24 hours a day, allowing students to pursue their studies whenever they wish. In addition, dormitory residents are enrolled in the GCL program, which is designed to help students interact and improve the communication skills required in an intercultural world. Each dormitory room is air-conditioned and equipped with a bed, bookshelf, desk, closet. Toilets, shower rooms, refrigerators and laundry machines are shared. On weekdays, breakfast and dinner are served in the cafeteria located on campus.

The International Student Dormitory Residence Uzumasa B

Residence Uzumasa B is an apartment-type dormitory located in a quiet residential area, 15 minutes away from Uzumasa Campus on foot. Each room is air-conditioned and equipped with a bed, bookshelf, desk, refrigerator, kitchen, unit bath, toilet, and closet. Laundry machines are shared among residents. As each room is equipped with a kitchen, students are able to prepare their own meals. However, residents may also choose to request that their meals (breakfast and dinner) be prepared by the campus cafeteria.

*This dormitory is currently available to male students only.



Dormitory fees

	Key money	Room rent	Bedding fee	Remarks
Residence Uzumasa A	23,000 JPY (192 USD)	63,000 JPY (525 USD)/month	1,650 JPY (14 USD)/month	Key money includes the GCL program fee and dorm maintenance fees. Room rent includes two meals on weekdays and utilities.
Residence Uzumasa B	20,000 JPY (167 USD)	48,000 JPY (400 USD)/month	1,650 JPY (14 USD)/month	Room rent includes utilities. Two meals on weekdays can be provided at the campus cafeteria for an additional 20,000 JPY/month upon request.

* US dollar equivalents are for reference only.
* All prices are subject to change.

(1 USD = 120 JPY)

Student's Voice

Hello. My name is Brunno Miotto Arrabal. I came from Brazil.

Brunno Miotto Arrabal

From Brazil
Enrolled in September 2021
Bachelor's Program

Q. Why did you decide to come to Japan?

The main reason to decide to come to Japan was because I'd already lived here in the past. So it was kind of obvious that I wanted to come back to Japan and study here for a longer period of time. Also I love the culture and the food and everything that Japan has to offer for me.

Q. Why did you choose KUAS?

It was a difficult decision at the beginning because there were a lot of other options. But at the end, I chose KUAS mainly because of two reasons. One is the location in Kyoto which I really loved because I had come to Kyoto a few times before and I fell in love with the city. I wanted to actually live here and experience what daily life in Kyoto would be like. My second reason was because that classes are taught in English. Teaching in English was a big deal for me because I'm not too confident in my Japanese at the current moment especially after I was away from Japan for four years. So the fact that they teach in English meant that I would be able to concentrate better in my classes and also learn faster.

Q. How do you like your life at KUAS, activities and classes?

I arrived and started my life here just a few weeks ago, and so far it's been exceeding my expectations in almost every way I can think of. I live on campus* right now so the main benefit is I'm close to school at all times. I have met a lot of new people from all over the world, I've learned about countries that I didn't even know existed on the map and that's been a lot of fun. Also the classes have been a little different than I expected because I only came out of high school. University life has been very different and the freedom that it gives you is kind of overwhelming at first, but then you start to get used to it and you start enjoying it more and more. For me, life at KUAS has been very enjoyable and I really recommend it to anyone who wants to try something new in a different country.

*the International Dormitory Residence A

Q. Any comments for international students?

I know that coming to a new country at first might be very daunting especially a country such as Japan where the language is very difficult and the culture is completely different from anything else that we have in the world. But if you have just a slight amount of interest of going outside or learning something new and you are able to do it, I say take your shot because if you don't take a shot now you won't have another opportunity in the future.

Hi! My name is Lucky Angelico A. Nagpala and I'm from the Philippines. I obtained my bachelors degree at the University of the Philippines Los Baños or UPLB. Right after graduating, I worked for Dyson electronics as a product engineer for a year. After experiencing working in the industry for a year, I chose to go back to my alma mater and work as an instructor at the Department of Electrical engineering. Currently I am on a study leave to obtain my Masters degree here in KUAS.

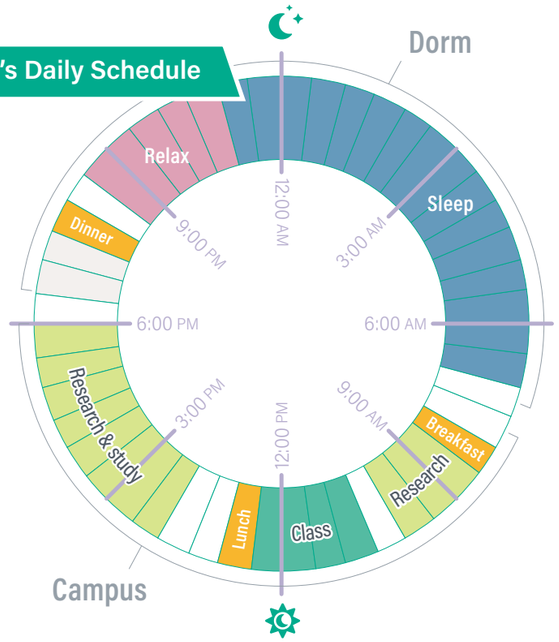
Lucky Angelico A. Nagpala

From the Philippines
Enrolled in September 2021
Master's Program

Q. Why did you decide to come to Japan?

I have been a big fan of Japanese culture at a young age. I'm mainly influenced by the animes I watched and still watching. And since anime usually shows some of the cultures and places in Japan, then I started to get really interested and begin familiarizing myself to its culture. Which is why Japan has been on top of my list if ever I planned to study or work abroad.

Lucky's Daily Schedule



Q. Why did you choose KUAS?

Actually, it is not originally in my plan to take my masters in KUAS or in Japan itself. My plan was to obtain my masters degree first in the Philippines and then my PhD in Japan. But my friend invited me to accompany him in the Study International's Japan Open House held in the Philippines. So I joined him and there I discovered KUAS. I saw that the graduate school's program perfectly fits my engineering major. So I looked at the requirements and I noticed that I have the needed document for application. Then I thought, why not try applying. I submitted the application requirements, and next thing I know I was accepted. I actually think that it is maybe destiny which brought me here in KUAS and I also think I made the right choice during that time.

Q. What are you studying?

I major in Electrical Engineering and chose to specialize in Power Electronics. My research is about designing and developing electrical power systems of Nanosatellites. I would like to develop a power system that could address the related problems encountered of nanosatellites during space missions. I chose this topic because space science and engineering is rather new in the Philippines. Since the university where I am working back in my country is also a research university, I would like to focus my future research on that field and share the knowledge to my country.

Student Support

The International Office provides all kinds of support to international students to help them start their life at KUAS with ease. The International Office can assist with visa procedures and applying to scholarships, introduce real estate agents, and provide advice on living in Japan. The International Office also plans exchange events between students and exchange programs between KUAS and other universities. The staff are very friendly and always welcome international students with open arms.

Buddy Program

As an initiative to promote multicultural exchange among students, the International Office provides the "Buddy Program". The purpose of the Buddy Program is to help international students from around the world to get used to student life at KUAS as soon as possible by providing them with support in their daily lives, as well as to offer current students with opportunities to learn through multicultural exchange. Buddies will be international students' first friends at KUAS, who can provide good advice on how to start their life in Japan.

Q&A

Admission

Q. Do I need Japanese language skills at the time of my application?

A. No. All engineering courses at KUAS are taught in English, so you do not need to know Japanese before you enroll. After admission, international students take Japanese language classes to improve their Japanese fluency.

Q. Do I need to provide proof of my English language ability when I apply?

A. Yes, if English is not your native language, you will need to demonstrate your English abilities. Please refer to the chart below for accepted English tests and minimum scores.

Minimum scores **UNDERGRADUATE**

TOEFL	IELTS	PTE	Duolingo English Test
Internet-based (iBT): 75	Academic overall band score: 5.5	Academic: 50	105

Minimum scores **GRADUATE**

TOEFL	IELTS	PTE	Duolingo English Test
Internet-based (iBT): 80	Academic overall band score: 6.0	Academic: 50	105

* For details on English requirement waiver eligibility, please refer to our Admission Guidelines.

Visa Support

Q. Do you offer visa support?

A. Yes. The KUAS International Admissions Office will help you to acquire a COE (Certificate of Eligibility), which you can then take to the nearest Japanese embassy to apply for a visa.

Scholarship

Q. What other scholarships are available to me besides KUAS-E scholarships?

A. In addition to the scholarships offered by KUAS, there are numerous other scholarships geared specifically to international students in Japan. These are offered both by various associations as well as the Japanese government. The KUAS International Office will provide students with information about these scholarships after they enrolled.

Housing

Q. Are there any housing options other than the on-campus dormitory?

A. Yes. Kyoto is famous for being a college town, and there are many apartments, shared houses and boarding houses to choose from outside of campus. If you do not wish to live on campus, you will need to find a place to live through a real estate agency, etc. KUAS will help you connect with these agencies.

Part-time Jobs

Q. Can I have a part-time job in Japan?

A. Yes. If you apply for and receive "permission to engage in activity other than that permitted under the status of residence previously granted" from the Immigration Bureau, you can work part-time at convenience stores, restaurants, etc. According to Japanese law, students can work up to 28 hours per week.

Living Cost

Q. What are some examples of living costs in Kyoto, such as food and other goods?

A. The cost of living in Kyoto is actually cheaper than in many North American, European, and some Asian cities. Even in Japan, Kyoto's prices are lower than Tokyo's. Please refer to the sample below.

Monthly living expenses sample		
Accommodation (off-campus)	60,000 JPY	(500 USD)
Food	35,000 JPY	(292 USD)
Personal expenses*	15,000 JPY	(125 USD)
Total	110,000 JPY	(917 USD)

* Excluding book expenses for classes. (1 USD = 120 JPY)

Price of major staple foods in Japan
Rice (5kg): about 2,000 JPY (16.6 USD)
Bread (1kg): about 400 JPY (3.33 USD)
Milk (1L): 250 JPY (2.08 USD)
Eggs (dozen): 220 JPY (1.83 USD)

Prices for staples and consumer goods
Toilet paper: 12 rolls: 300 JPY (2.50 USD)
Movie ticket: 1,900 JPY (15.83 USD)
Subway fare: 220-290 JPY (1.83-2.41 USD)
Bicycle: 15,000 JPY~ (starting from 125 USD)

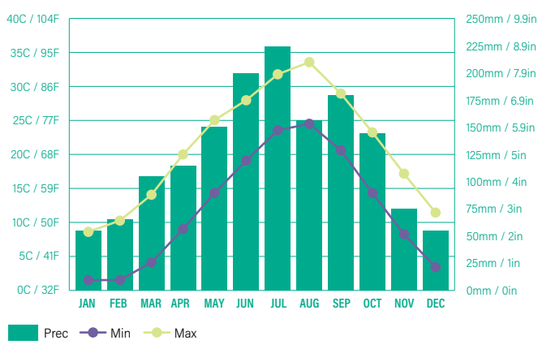
Typical restaurant prices
Hamburger: 240-700 JPY (2.00-5.83 USD)
Beef bowl: 390 JPY (3.25 USD)
Ramen noodles: 700 JPY (5.83 USD)

(1 USD = 120 JPY)
* US dollar equivalents are for reference only.

Climate

Q. What is the climate like in Kyoto?

A. Kyoto has four distinct seasons. Summers are hot and humid, averaging about 30 degrees Celsius, and winters are cold but the temperature rarely goes below freezing. There is a month-long rainy season between spring and summer. Typhoons sometimes come during the summer and early fall, but they have less impact on Kyoto than other regions of Japan. Spring and fall are especially pleasant. One of the charms of Kyoto is the variety of natural scenery that can be enjoyed in each season.



Course Fees

	1st year					2nd year	3rd year	4th year
	Admission fee	Tuition	Association fees	Insurance fee	Total			
Bachelor's Program	260,000 JPY (2,166 USD)	1,340,000 JPY (11,166 USD)	49,500 JPY (412 USD)	6,020 JPY (50 USD)	1,655,520 JPY (13,796 USD)	1,476,500 JPY (12,304 USD)	1,476,500 JPY (12,304 USD)	1,501,500 JPY (12,512 USD)
Master's Program	200,000 JPY (1,666 USD)	1,000,000 JPY (8,333 USD)	–	3,240 JPY (27 USD)	1,203,240 JPY (10,027 USD)	1,000,000 JPY (8,333 USD)	–	–
Doctoral Program	200,000 JPY (1,666 USD)	1,000,000 JPY (8,333 USD)	–	4,630 JPY (38 USD)	1,204,630 JPY (10,038 USD)	1,000,000 JPY (8,333 USD)	1,000,000 JPY (8,333 USD)	–

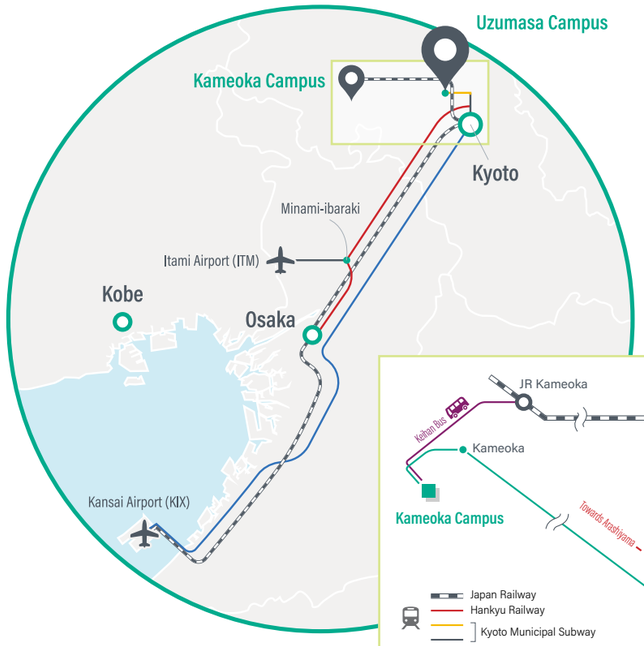
* All prices are subject to change without prior notice due to currency fluctuation, etc. * Tuition includes facility and laboratory fees.
* For undergraduate students, the laboratory fee increases from the second year. An alumni association fee is required in the fourth year.
* US dollar equivalents are for reference only. (1 USD = 120 JPY)

Scholarships

Applicants who wish to request a scholarship are required to indicate such on their application form when applying to KUAS. Scholarships are provided to a limited number of outstanding students based on a comprehensive evaluation. Qualified students will undergo a performance review each semester. Scholarship recipients must maintain academic excellence to retain their scholarship.

	Super KUAS-E Scholarship	KUAS-E Scholarship I	KUAS-E Scholarship II	KUAS-E Scholarship III
	Stipend (for personal expenses) 1,200,000 JPY/year (10,000 USD/year) + Tuition exemption 100% + Admission fee exemption 100%	Tuition exemption 100% + Admission fee exemption 100%	Tuition reduction 50% + Admission fee reduction 50%	Tuition reduction 30% + Admission fee reduction 30%
Bachelor's Program	○	○	○	
Master's Program	○	○	○	○
Doctoral Program	○	○		

* US dollar equivalents are for reference only. (1 USD = 120 JPY)



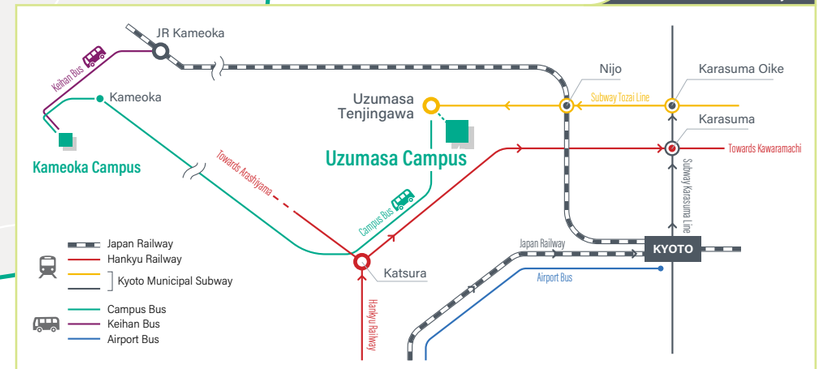
Location of KUAS

Kyoto University of Advanced Science

☑ **Uzumasa Campus** Location of Engineering building
18 Yamanouchi Gotanda-cho, Ukyo-ku, Kyoto 615-8577, Japan

☐ **Kameoka Campus**
1-1 Nanjo Otani, Sogabe-cho, Kameoka, Kyoto 621-8555, Japan

Train and bus routes in Kyoto



KUAS does not provide transportation services from the airport to the campus.

Contact us

#kuaseng
KUASeng2020
www.kuas.ac.jp/en/

Kyoto University of Advanced Science
International Admissions Office
Tel. +81 (0)75-496-6221
Email admission@kuas.ac.jp