

PC Requirements

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To: New Faculty of Engineering Students

From: Kyoto University of Advanced Science

Preparing Your Laptop for University Use (Information)

To nurture our future graduates into professionals who can succeed in a rapidly evolving information-based society, KUAS has prepared internet connectivity in all of its school buildings and facilities to which students can connect via their personal devices. As many engineering courses make use of personal laptops, Faculty of Engineering students will be required to bring a personal computer to school starting from the fall semester of 2025 (September).

1. Purpose

In the KUAS Faculty of Engineering (Department of Mechanical and Electrical System Engineering), students will straddle the fields of Mechanical and Electrical Systems Engineering as they learn about 13 interlinked disciplines (mechanics, materials, electromagnetics, ionics, energy, actuators, devices, circuitry, communications, robotics, measurement, design and production). It is particularly important for Engineering students to have a constant awareness of new social and technological developments. Therefore, Engineering students will immediately start using computers to learn about mathematics, physics and information processing, which are the foundations of the field of mechanical and electrical systems engineering, from their first year of study

Some examples of courses that first-year students will take are "Introduction to Numerical Analysis Programming," "Information Literacy," "Algorithmic Thinking and Programming with Python + Exercises," "Introduction to C Programming + Exercises," "System Programming with C + Exercises," and "Digital Signal Processing + Exercises". These amount to ten courses in all.

In the first semester of the first year, students learn the basics of the numerical analysis software MATLAB and Simulink in the "Numerical Analysis Programming" course, and then learn basic information management techniques using shell scripts in the "Information Literacy" course. Students acquire general programming skills in "Python Programming + Exercises", advanced programming skills in "C Programming + Exercises" and "C System Programming + Exercises", and practical applied information processing skills for mechanical and electrical systems engineering in "Digital Signal Processing + Exercises". Students also acquire practical information processing skills for mechanical and electrical systems engineering. "Numerical Analysis Programming" and "Information Literacy" are taught in a regular classroom using laptop computers. For "Python Programming + Exercises," "C Language Programming + Exercises," "C Language System Programming + Exercises," and "Digital Signal Processing + Exercises," lectures and exercises are held in an information lab equipped with desktop PCs and large screen displays. Students are required to use laptop computers for preparation, review, and report writing.

In addition, as a policy of the Faculty of Engineering, MATLAB & Simulink will be used in the lectures and exercises of all specialized courses, including physical engineering and industrial mathematics courses, to support the mastery

of MATLAB & Simulink, which are widely used in technical fields. In addition, physics courses will also use computer-based aids (electronic versions of textbooks and WileyPlus academic support software) and CAD. In this way, students will spend their time in university in such a fashion where they are constantly studying with the aid of a computer.

Based on the above, we ask all new students to prepare their own laptop computer.

2. Preparing a Laptop

① If you already have a computer

If you already have a laptop that meets the minimum specifications, you don't need to buy a new one.

② If you don't have a computer yet

Please prepare a notebook computer while paying close attention to the hardware requirements listed in "3. PC Specifications" below (the computer does not need to be brand new). Students are asked to please manage this expense on their own.

*KUAS requires that antivirus software be installed and activated on all PCs used on the campus. After admission, you can install Microsoft Office as well as antivirus software on your laptop for free, and you do not need to buy these software applications separately.

③ Troubleshooting

If you need assistance with how to use your laptop, the university can assist you. However, please note that the university cannot handle tech support related to hardware malfunction, etc. If necessary, please consider purchasing coverage at the electronics outlet where you purchased your computer.

3. Laptop Specifications (for reference only)

*As you will be carrying your laptop around campus frequently, we recommend purchasing the lightest model available.

OS: Windows 11 Home/Pro or newer / Mac OS (11) Big Sur newer

* For Mac, either Intel or Apple CPU is acceptable.

	Minimum Specs	Recommended Specs
CPU	Intel Core i5 8th gen or newer AMD Ryzen series 5 4rd gen or newer e.g., Core i5-8250 U, Ryzen5 5500U	Intel Core i5 10th gen or newer AMD Ryzen series 5 4rd gen or newer ex. Core i5-10300H, Ryzen5 5625U
Memory	More than 16 GB	More than 16 GB
HDD	More than 256 GB	More than 512 GB SSD
LAN	IEEE 802.11 a/b/g/n (External or integrated)	IEEE 802.11 a/b/g/n/ac (Integrated)
Screen resolution	Greater than 1920 x 1080	Greater than 1920 x 1080 (non-glare matte screen recommended)
Other	Microphone, camera (external or integrated)	Microphone, camera (Integrated)

4. Free Computer-related Services

The following software and Internet services are provided free to KUAS students

- WiFi internet connection (inside all campus buildings)
- Microsoft Office 365 ProPlus & Anti-virus software
- MATLAB/Simulink
- WileyPlus (Support for the study of physical engineering, including electronic textbooks)
- CREO CAD software

5. Inquiries

Please direct any computer-related inquiries to the Information and Communication Technology Center at student-pc@kuas.ac.jp

To: New Faculty of Bioenvironmental Sciences Students
New Faculty of Economics and Business Administration Students

Kyoto University of Advanced Science

Preparing Windows Notebook PCs for University Use

In order to develop human resources who can respond to our rapidly evolving, highly information-oriented society, KUAS has designed classwork based around utilizing notebook PCs in the classroom, and as such has created an environment in which students can use the notebook PCs they bring with them, including using wireless LAN (Wi-Fi) facilities, on campus in the school buildings and other areas where they study.

Therefore, we would like to inform you of the following information regarding the Windows notebook PCs that students admitted in the class of 2025 are required to bring and carry (mandatory) when attending classes in September (fall semester).

1. Purpose

The purpose of this program is to provide admitted students with the minimum necessary information and communication technology skills for working adults by the time of their graduation from KUAS through the use of personal computers and the internet on numerous occasions, including in their classes, and when writing lecture reports, and graduation theses.

In addition, students will learn the basics of using Windows PCs in the first-year mandatory "Information Literacy" course.

2. Preparing Your Computer

① Those who already own a computer

If you already have a notebook PC that complies with "3. Windows PC Specifications" below, you do not need to purchase a new notebook PC.

② Those who plan to purchase a new computer

Please prepare a notebook PC (not necessarily a new one) that meets the specifications listed in "3. Windows Computer Specifications" below. We understand that this may be a financial burden, but we humbly request your cooperation.




*KUAS requires that anti-virus software be installed and activated on all computers used on campus. After admission, KUAS-licensed Microsoft Office (Excel, Word, etc.) and anti-virus software may be installed on your notebook PC free of charge. If you already own a computer or are purchasing a computer in the future, you do not need to purchase these software programs separately or as a set with your computer.

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③ Usage

The university can provide advice on how to use your notebook PC, but cannot respond to or provide support for computer equipment malfunctions. If necessary, please consider purchasing from an electronics retailer or other store that offers user support and equipment coverage.


3. Windows PC Specifications (Reference)


OS **Windows 11 home/Pro**  (*Apple  Macs, Google Chromebooks  are not acceptable)


	Standard Specification
CPU	Intel Core i3 8th generation or newer AMD Ryzen 4th generation for newer
RAM	8GB or more
Internal disk capacity	256GB or more SSD is recommended (SSD operates faster and is more durable than HDD)
Wireless LAN	IEEE 802.11a/b/g/n/ac supported
Other	Microphone and camera (external microphone and camera acceptable) must be installed.

*For the sake of portability, we recommend the lightest possible weight.

*We do not recommend older versions of Windows that are no longer supported by Microsoft, or those that have been upgraded from Windows 7, 8.1, or 10 to Windows 11 and take more than 3 minutes to start up.

*Please do not bring in Apple  Macs, as their operating systems (OS) look and operate very differently from Windows PCs (which may interfere with class progress).

*Please do not bring Google Chromebooks  either, as its operating system (OS) looks and operates very differently from Windows PCs (which may interfere with class progress).

*Apple iPads  are not a replacement for a PC. You may bring your own iPad in addition to a computer, but please note that you may not take Information Literacy classes on an iPad.

4. Services available after admission

KUAS will provide the following software and internet environment free of charge.

Wireless LAN connection (in university buildings)

Microsoft Office 365 ProPlus

Anti-virus software

MATLAB/SimLink

5. For inquiries regarding this matter

We apologize for the inconvenience, but please direct inquiries to the Information and Communication Technology Center at the following e-mail address (student-pc@kuas.ac.jp) .