



Introduction to Information Systems

- Understanding the digital world

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Office hour: n/a (no office in Doshisha University)



Language: Chinese, Japanese, English



Contact after class: E-mail or you can visit my lab at Kyoto University.

Information systems are everywhere



Let us find computers around us.

Syllabus (1/3)

NOT for these students.

- Expert level.
- Only interested in the use.


Summary: Provide an **overview** of information systems including hardware and software **fundamentals**, **coding**, effective and secure use of the Internet and other **communication** tools, **Artificial Intelligence** (AI), as well as the **ethical** use of computers in business and society through **hands-on activities** and **assignments**.

Goal: Learn basic concepts and knowledge to understand digital computers and communications including hardware, software, Internet, World-Wide Web (WWW), AI, software license, information security and others, as well as coding and web page creation.

Syllabus (2/3)

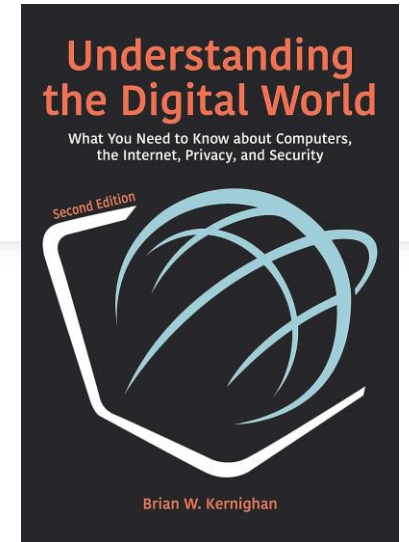
Style: Hybrid of **normal teaching** and **flip classroom** (i.e., in class: mini tests, reviews, summary videos, and classwork; at home: textbook reading and online learning).

Evaluation Criteria: Each lecture has **7pt** (**2 for attendance** and **5 for mini test**). The total is thus $7\text{pt} \times 15 \text{ lectures} = 105\text{pt}$ with a max of 100pt. **Bonus** points are given to **challenging** tasks. **General note:** Attendance is evaluated by if the student followed the instructions, while assignment (mini test) is evaluated by the correctness or completeness of the answer.



Syllabus (3/3)

Textbook: B.W. Kernighan, **Understanding the digital world**, Princeton University, 2021 (1st edition is also fine. Both paper and e-book are OK).



Schedule: **1** What is in a Computer, **2** Bit, Bytes and Representation of Information, **3** Inside the CPU, **4** Programming, **5** Algorithms, Programming and Programming Languages, **6** Programming with Python and Scratch, **7** Operating System and Software Systems, **8** Javascript and HTML, **9** Communication and Networks, **10** The Internet, **11** Data and Information, **12** Privacy and Security, **13** The World-Wide Web (WWW), HTML, and Wiki, **14** Artificial Intelligence (AI) and the Future of Computing, **15** The Future of Information System and Overall Review

Information

E-Class will be used as the major support platform.
You can find it from the Home Page of Doshisha Univ -> (Visitors menu) Current Students -> e-class.

After-lecture support: See Contact (questions and discussions are welcome).

General note: You are not expected to understand everything. If you find a topic or the textbook is difficult, please ask or skip it. If too simple, please go forward, challenge the bonus task, share with or teach other students - but **please keep your voice low.**

On the use of ChatGPT: By default, NO (for education purpose). Will have some practice with it.

A general introduction on computers



History of computer (12')

https://www.youtube.com/watch?v=05nskjZ_Gol



Electronic Computing (11')

<https://www.youtube.com/watch?v=LNDucKNX0hc>

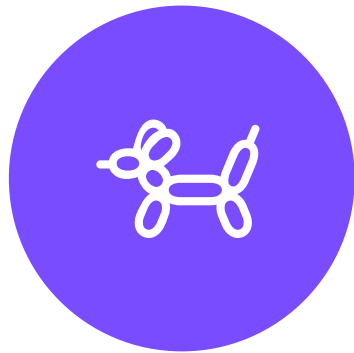
What is in a computer



Inside modern computer (10')

<https://www.youtube.com/watch?v=ExxFxD40SZ0>

Mini test and homework



MINI TEST



**HOMework: READ CHAPTERS 1
AND 2 OF THE TEXTBOOK**