科目ナンバリング	U-LAS30 10035 LE10　U-LAS30 10035 LE12　U-LAS30 10035 LE11						
授業科目名<英訳>	Basics of Informatics and AI Basics of Informatics and AI			担当者所属職名・氏名	工学研究科　准教授　CHANG, Kai-Chun		
群	情報学科目群			分野(分類)	(基礎)	使用言語	英語
旧群		単位数	2単位	週コマ数	1コマ	授業形態	講義（対面授業科目）
開講年度・開講期	2026・後期	曜時限	火4	配当学年	主として1回生	対象学生	理系向

[授業の概要・目的]

This course covers the fundamental concepts of information representation, computer hardware, operating systems, artificial intelligence (AI), the technical background of networks and the Internet, and other related topics.

[到達目標]

To understand the fundamental concepts of information representation, computer hardware, operating systems, artificial intelligence (AI), the technical background of networks and the Internet, and other related topics.

[授業計画と内容]

0. Introduction to informatics and AI [1 week]

1. Representing information as bit patterns [5 weeks]
  1-1. The binary system
  1-2. Representing integers
  1-3. Representing fractions
  1-4. Representing text
  1-5. Representing other information

2. Computers and their peripherals [3 weeks]
  2-1. Computer architecture
  2-2. CPU and main memory
  2-3. Storage devices, input and output devices

3. Operating system and AI [3 weeks]
  3-1. Operating system architecture
  3-2. Coordinating computer's activities
  3-3. AI fundamentals

4. Networking and the Internet [2 weeks]
  4-1. Network fundamentals
  4-2. The Internet

5. Final Examination

6. Feedback [1 week]

Basics of Informatics and AI(2)へ続く↓↓↓

Basics of Informatics and AI(2)

[履修要件]

特になし

[成績評価の方法・観点]

Quizzes and exercises (40%), final examination (60%)

[教科書]

使用しない

In-class handouts and digital resources via the LMS course site

[参考書等]

（参考書）

授業中に紹介する

[授業外学修（予習・復習）等]

Students are expected to dedicate one hour or more per week to course material, primarily for previewing content and reviewing lectures. More than half of this time should be focused on preparing for class and completing assignments.

[その他（オフィスアワー等）]

Any inquiry to the instructor: chang.kaichun.4z{at}kyoto-u.ac.jp. (replace {at} with @)

[主要授業科目（学部・学科名）]