

科目ナンバリング		U-LAS30 10016 LE11   U-LAS30 10016 LE12   U-LAS30 10016 LE10							
授業科目名 <英訳>		Basic Informatics-E2 Basic Informatics-E2				担当者所属 職名・氏名		情報学研究科 特定准教授 HADFI Rafik	
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	2024・前期		曜時限	水2		配当学年	全回生	対象学生	全学向
【授業の概要・目的】									
<p>Conducting state-of-the-art research across diverse fields of science, technology, and liberal arts demands fundamental computer skills and the ability to effectively process, utilize, and analyze various types of information. This lecture covers the fundamentals of information literacy and utilization, with topics on how to collect, organize, search, manage, analyze, present, and visualize information. In addition, the course will give a thorough overview of essential technologies for extracting and analyzing valuable knowledge and will introduce how to apply these technologies across various research fields.</p>									
【到達目標】									
<p>Students will learn the fundamentals of information retrieval, processing, analysis, and presentation. In addition, they will understand when and how to use computational techniques to solve diverse problems.</p>									
【授業計画と内容】									
<p>- Processing and management of information (about 7 classes) This part covers topics related to the automatic analysis and processing of information, information retrieval (search engines), and storage (relational databases).</p> <p>- Analysis of information (about 4 classes) This part covers the methods used for analyzing data, including practical information and data mining techniques (association rules, clustering techniques, decision trees, etc.) and machine learning approaches (supervised and unsupervised learning, etc.).</p> <p>- Representation of information (about 2 classes) This part covers topics related to information acquisition by computers (e.g., analog and digital data, multi-media, sampling theorem) and topics related to the representation of information (coding, information amount, entropy, Huffman code, mutual information).</p> <p>- Information design (about 1 classes) This part will cover data visualization techniques.</p> <p>Total : 14 classes, 1 feedback session.</p>									
【履修要件】									
特になし									
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## Basic Informatics-E2(2)

### 【成績評価の方法・観点】

Grading will be based on the evaluation of submitted reports for each assignment. All assignments will be available via the Panda system.

### 【教科書】

使用しない

All lecture slides will be available on the Panda system.

### 【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 will review materials after classes based on the lecture slides.

### 【その他（オフィスアワー等）】

No office hours are specified. E-mail: rafik.hadfi@i.kyoto-u.ac.jp