

## Intelligent CAI

2 units (selection)

Hiroaki Ogata · ASSOCIATE PROFESSOR / INTELLIGENT SYSTEMS, INFORMATION SCIENCE AND INTELLIGENT SYSTEMS, SYSTEMS INNOVATION ENGINEERING

Hiroyuki Mitsuhashi · ASSOCIATE PROFESSOR / INTELLIGENT SYSTEMS, INFORMATION SCIENCE AND INTELLIGENT SYSTEMS, SYSTEMS INNOVATION ENGINEERING

Kazuhide Kanenishi · PROFESSOR / APPLIED INFORMATION MEDIA ENGINEERING, INFORMATION SCIENCE AND INTELLIGENT SYSTEMS, SYSTEMS INNOVATION ENGINEERING

Kenji Matsuura · ASSOCIATE PROFESSOR / APPLIED INFORMATION MEDIA ENGINEERING, INFORMATION SCIENCE AND INTELLIGENT SYSTEMS, SYSTEMS INNOVATION ENGINEERING

Teruaki Ito · ASSOCIATE PROFESSOR / MECHANICAL SCIENCE, MECHANICAL ENGINEERING, INTELLIGENT STRUCTURES AND MECHANICS SYSTEMS ENGINEERING

**Target**) This course aims to instruct the design methods for intelligent systems from the point of view of new Ergonomics and knowledge engineering.

**Outline**) Computers are being used in Education. In this course, we will instruct about intelligent CAI (Computer Assisted Instruction). Especially, we will talk about the difference between traditional CAI and intelligent one and the applications of ICAI, and user interfaces and teaching strategies based on theories and practices.

**Style**) Lecture

**Keyword**) *educational technology, learning science*

**Fundamental Lecture**) “Web Programming”(1.0), “Information and Communication Network”(1.0), “Autonomous Intelligent Systems”(1.0)

**Relational Lecture**) “Venture Business (D)”(0.5), “Natural Language Understanding”(0.5), “Presentation Method (D)”(0.5)

**Goal**) You will acquire how to design and implement the system of Intelligent CAI.

**Schedule**)

1. Overview of Intelligent CAI, History and theories of CAI
2. Intelligent CAI
3. ITS
4. Learner model, Tutoring model, Theories of CAI
5. Web Based Learning Environment
6. Adaptive Hypermedia, Personalization
7. Game-based Learning
8. CSCL(Theories)
9. CSCL(Systems)
10. Knowledge Management, SNS and Education Support System
11. Mobile Learning Environment(Theories)
12. Mobile Learning Environment(Systems)

13. Ubiquitous Learning Environment(Theories)

14. Ubiquitous Learning Environment(Systems)

15. Summery of Educational Technologies

16. examination

**Evaluation Criteria**) We will grade based on reports (30 points) and examinations (70 points). But this is subject to change.

**Contents**) <http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216757>

**Contact**)

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**Note**)

- 授業を受ける際には、2時間の授業時間毎に2時間の予習と2時間の復習をしたうえで授業を受けることが、授業の理解と単位取得のために必要である。
- 授業計画1～15は、各講義のレポートおよび最終試験により達成度評価を行なう。