

Geographical Information Analysis

Advanced Course

Special Subjects
Elective 2 credit

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1. Course Description

Nowadays, it is getting more important to discover and analyze regional issues through GIS technology. In this lecture, you will learn about the value of GIS to deeply understand about the region. I'd like to show you some helpful cases and specific technical information used in various fields such as administration, disaster prevention, and environment.

2. Course Objectives

The objective of this lecture is to understand basic of Geographical Information System such as information gathering, data processing and, spatial analyzing. At the end of this lecture, you can get knowledge and skills of regional analysis.

3. Grading Policy

Grading policy is based on the result of reports(100%).
Results will be given through LMS.

4. Textbook and Reference

Textbook

No fixed textbook. Prints are distributed as the teaching materials.

5. Requirements(Assignments)

"Preparation"

You don't need to prepare. You DO review the class, and its preparation.

"Review"

Students will be required to review the lectures(approximately 3 hours per week).
I recommend to review with new data found by yourself.

6. Note

In addition, students must be interested in Information Technology.

7. Schedule

- [1] Introduction: Impact of GIS to regional development
- [2] An outline and basic theory of GIS
- [3] Purposes of thematic map and creation method
- [4] Various forms of GIS
- [5] Case of GIS: Administrative sector
- [6] Case of GIS: Welfare sector
- [7] Case of GIS: Disaster prevention sector
- [8] Data processing: Access to statistics
- [9] Data processing: Statistical data arrangement
- [10] Data processing: Data with location information
- [11] Spatial Analysis: Spatial calculating by buffering
- [12] Spatial Analysis: Spatial analysis according to distance
- [13] Spatial Analysis: Network analysis
- [14] Spatial Analysis: Regional analysis
- [15] Summary