

Remote sensing for environmental monitoring.

-Basic principles of active and passive remote sensing techniques and their applications.

6. (Week 10)

Examples of major environmental issues and their monitoring.

-Acid rain, threats to biodiversity, water and soil degradations, monitoring agencies and databases.

7. (Weeks 11-12)

Illustrations of the usefulness of environmental monitoring: the stratospheric ozone depletion and the understanding of the current climate change.

- Stratospheric ozone depletion: description of the environmental issue and the role of environmental monitoring in discovering and solving the problem.

-Climate change: the role of environmental monitoring in identifying anthropogenic causes.

9. (Weeks 13-14)

Practical analysis of some environmental monitoring data.

- Identification of environmental problems (e.g. rise in CO₂ concentration) from databases.

10. (Week 15)

Final examination.

11. (Week 16)

Feedback.

[履修要件]

This lecture only requires scientific backgrounds in natural sciences of high school levels.

[成績評価の方法・観点]

Evaluation will be:

Active participation in class: 20 pts

Assignments/projects at home: 40 pts

Final examination: 40 pts

[教科書]

Not used. Slide handouts will be distributed.

[参考書等]

(参考書)

J. Artiola, I. L. Pepper, M. L. Brusseau 『Environmental Monitoring and Characterization』 (Elsevier Science & Technology Books, March 2004,) ISBN:0120644770

[授業外学修 (予習・復習) 等]

Course materials are made available before class.

Students are encouraged to study materials before and after each session to assimilate technical or uncommon words.

Depending on the topic, the study of the materials and the preparation of the report for the evaluation may take a few hours a week.

【その他（オフィスアワー等）】

Materials (pdf files) are available on KULASIS website. Communication by emails are possible for questions outside of class hours.