

Education for Innovation Education of students who will promote innovation

## Development of Curriculum in the Integrated Science and Technology Course

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### Activities

#### Implementation of *Regional Revitalization System Theory*, and the examination of *Education for Innovation as a new curriculum*

In the Integrated Science and Technology Course, a new curriculum has been implemented and examined in accordance with the following specific contents.

##### **A course, *Introduction to Management of Technology*, is now being offered**

In FY 2005, the School of Materials Science strengthened its offerings in graduate school education, and prepared *Introduction to Management of Technology*, a course in the management of technology for engineers majoring in math and science.

##### **Shifting from the nurturing of independent researchers to the nurturing of leaders**

Previously, educational programs have been planned for the purpose of nurturing the independence of researchers, with a specific emphasis on the abilities of problem finding and problem solving.

For the future, educational programs based on previous achievements and focusing on the nurturing of leaders (e.g. an educational activity centering on group work) will be planned and implemented. New educational programs in both the School of Knowledge Science and School of Materials Science were proposed for the Support Program for Improving Graduate School Education.

##### **For regional revitalization**

A course in *Regional Revitalization System Theory* is now being offered in cooperation with the National Cabinet Office. In this course, research is approached from the aspects of both analysis and practice, and the structure and properties of knowledge required for regional revitalization are verified, leading to the establishment of new social systems.

##### **[List of the lectures in *Regional Revitalization System Theory*]**

###### General theory

Introduction to regional revitalization policy: From the establishment of a regional revitalization head office, to the creation of regional revitalization laws

Methodology of regional revitalization: A range of support for regional revitalization

Theory and implementation of new knowledge creation techniques for local organizations

###### Policy theory in specific areas

Welfare and regional revitalization: Focusing on regional revitalization through the promotion of regional welfare

Regional revitalization from the viewpoint of economic performance

Measures and policies for small and medium-sized businesses and regional revitalization – centering on the trends of new public policies, including *new collaborations* –

Tourism and regional development

Integrated strategy of biomass in Japan and regional biomass strategy

###### Theories focusing on actual concrete regional examples

Regional revitalization through industrial-academic-governmental collaboration – focusing on the example of Otaru City –

Theory of human resource development for regional innovation: An example of the implementation of revitalization in Nanao City

The intersection of intelligence and sense – Town development with a pleasant atmosphere –

##### **Creating an educational curriculum for the COE Innovation research project**

In the Integrated Science and Technology Course, we are considering the creation of a curriculum for education for innovation that includes the content of the four interdisciplinary projects for COE innovation research, *Innovation in fully developed industries*, *Knowledge creation activities supported by research philosophy*, *Knowledge representation theory for coordination*, and *Knowledge management in laboratories*.

### Members

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