Curriculum Policy of the Faculty of Science

The curriculum of the Faculty of Science is structured as follows, based on the Kobe University Curriculum Policy.

1. In order to imbue undergraduate students with a sense of humanity, creativity and international awareness, the university has established common courses to be taken by all undergraduate students that are mandatory for completion. These include basic, integrated and advanced liberal arts courses, foreign language courses, first-year seminars, career courses, information science courses, and health and physical education courses.
2. In order to foster deeper academic knowledge and cultivate undergraduates' expertise, the specialized subjects below have been established (including common specialized foundation courses and advanced liberal arts courses established by the Faculty).

・**Department of Mathematics**

・Common specialized foundation courses enabling students to gain a general overview of science.

・Mathematics basic courses enabling students to understand and apply the fundamentals of mathematics.

・Mathematics foundation courses enabling students to understand and apply core mathematics.

・Advanced mathematics courses enabling students to understand modern mathematics.

・Special research courses enabling students to properly formulate and creatively solve issues by themselves.

Furthermore, these courses are often combined where appropriate, with active learning and experience-based learning in the form of lectures, practical learning, experiments, and other classroom formats.

Learning outcomes are evaluated via multiple comprehensive methods in accordance with the learning objectives.

Curriculum Map (Department of Mathematics)

・**Department of Physics**

・Common specialized foundation courses enabling students to gain a general overview of science.

・Physics foundation courses enabling students to understand and apply the fundamentals of

physics.

- Specialized physics courses enabling students to understand the structure and functions of materials.
- Advanced specialized physics courses enabling students to understand modern physics.
- Experimental physics courses enabling students to apply experimental methods in physics.
- Special research courses enabling students to properly formulate and creatively solve issues by themselves.

Furthermore, these courses are often combined where appropriate, with active learning and experience-based learning in the form of lectures, practical learning, experiments, and other classroom formats.

Learning outcomes are evaluated via multiple comprehensive methods in accordance with the learning objectives.

Curriculum Map (Department of Physics)

- **Department of Chemistry**
  - Common specialized foundation courses enabling students to gain a general overview of science.
  - Chemistry foundation courses enabling students to understand and apply the fundamentals of chemistry.
  - Specialized chemistry courses enabling students to understand the structure and functions of materials.
  - Advanced specialized chemistry courses enabling students to understand modern chemistry.
  - Experimental chemistry courses enabling students to apply experimental methods in chemistry.
  - Special research courses enabling students to properly formulate and creatively solve issues by themselves.

Furthermore, these courses are often combined where appropriate, with active learning and experience-based learning in the form of lectures, practical learning, experiments, and other classroom formats.

Learning outcomes are evaluated via multiple comprehensive methods in accordance with the learning objectives.

Curriculum Map (Department of Chemistry)

・**Department of Biology**

・Common specialized foundation courses enabling students to gain a general overview of science.

・Biology foundation courses enabling students to understand and apply the fundamentals of biology.

・Specialized biology courses enabling students to understand the common mechanisms of life shared by all organisms and the origins of biodiversity.

・Advanced specialized biology courses enabling students to understand modern biology.

・Experimental biology courses enabling students to apply experimental methods in biology.

・Special research courses enabling students to properly formulate and creatively solve issues by themselves.

Furthermore, these courses are often combined where appropriate, with active learning and experience-based learning in the form of lectures, practical learning, experiments, and other classroom formats.

Learning outcomes are evaluated via multiple comprehensive methods in accordance with the learning objectives.

Curriculum Map (Department of Biology)

・**Department of Planetology**

・Common specialized foundation courses enabling students to gain a general overview of science.

・Planetology foundation courses enabling students to understand and apply the fundamentals of planetology.

・Specialized planetology courses enabling students to understand various processes that occur in relation to the Earth, the solar system and space.

・Advanced specialized planetology courses enabling students to understand planetology that encompasses the Earth, the solar system and space.

・Experimental and practical planetology courses enabling students to apply experimental methods in planetology.

・Special research courses enabling students to properly formulate and creatively solve issues by themselves.

Furthermore, these courses are often combined where appropriate, with active learning and

experience-based learning in the form of lectures, practical learning, experiments, and other classroom formats.

Learning outcomes are evaluated via multiple comprehensive methods in accordance with the learning objectives.

Curriculum Map (Department of Planetology)