

## Degree Programs in Pure and Applied Sciences

### Educational purpose

The Degree Programs in Pure and Applied Sciences offer advanced education and research supervision concerning the foundation of pure and applied sciences and its application to science and technology to cultivate researchers, university faculty members and highly specialized professionals who have a wide perspective covering from foundation to application and outstanding research ability that can appropriately deal with the rapid changes of the modern society. To realize this education, the following Master's and Doctoral Programs are organized.

|                  | Competences specified by the Degree Programs  | Evaluation perspectives   |
|------------------|---|---|
| Master's Program | 1. Research ability: Basic knowledge and ability to set research tasks and carry out a research plan in the areas of pure and applied sciences  | ① If significant research tasks and research goals in the area of expertise are set<br>② If a research plan for the realization of research goals and research tasks is designed<br>③ If information, technical and specialized knowledge necessary to carry out a research plan are obtained and these specialized knowledge are comprehensively used            |
|                  | 2. Specialized knowledge: Advanced specialized knowledge and command of the areas of pure and applied sciences  | ① If advanced specialized knowledge in the areas of pure and applied sciences is acquired<br>② If the ability to apply, put into practice, and use specialized knowledge in actual research is acquired   |
|                  | 3. Ethical view: Ethical view and ethical knowledge appropriate for persons with basic research ability or highly specialized professionals in the areas of pure and applied sciences is acquired                             | ① If ethical view necessary to carry out research is adopted in addition to general ethical view<br>② If matters with potential to develop ethical problems are understood and knowledge to address these is acquired   |
| Doctoral Program | 1. Research ability: Ability to set leading-edge research tasks based on up-to-date specialized knowledge and carry out a research plan independently in the areas of pure and applied sciences                               | ① If important and significant research tasks and research goals in the area of expertise are set<br>② If a research plan for the realization of research goals and research tasks is designed<br>③ If information, technical and specialized knowledge necessary to carry out a research plan are obtained and these advanced knowledge are comprehensively used |
|                  | 2. Specialized knowledge: Leading-edge and advanced specialized knowledge and command of the areas of pure and applied sciences   | ① If advanced and leading-edge specialized knowledge in the areas of pure and applied sciences is acquired<br>② If high ability to apply, put into practice, and use specialized knowledge in actual research is acquired   |
|                  | 3. Ethical view: Ethical view and ethical knowledge appropriate for researchers or highly specialized professionals in the areas of pure and applied sciences and deep ethical knowledge about the specific area of expertise | ① If high ethical view necessary to carry out research is adopted in addition to general ethical view<br>② If matters with potential to develop ethical problems are understood and advanced knowledge to address these is acquired   |