

# Educational Program for Doctoral Students

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## Course of Bioscience and Biotechnology

Research subject : Research on the production of useful materials from the functions of microorganisms

Possibilities : Advanced technical specialists for research on the functions of microorganisms and their effective use; development of functional foods and beverages in food production and brewing industries; comprehensive application of agriculture and engineering

## Graduate Admission

General admission

Special admission for career professionals

Special admission for international students

## Requirements for Completing the Doctoral Program

Essential subject group (3 credits), Research fundamental subject group (4 credits or more), Advanced research (5 credits). Students are required to obtain 12 credits or more and to pass the final examination.

## Requirements for Acquiring the Doctoral Degree

The main part of a doctoral dissertation is required to be published in at least two papers of an academic journal with critical review, and a dissertation is required to pass evaluation by the Doctoral Dissertation Committee.

| Subject      | Essential subject group<br>(Core requirements: 3 credits)  | Research fundamental subject group<br>(Elective requirements: 4 credits or more)                  | Advanced research<br>(Core requirements: 5 credits)  |
|--------------|--|---|--|
|              |  | Common course of graduate school and course of bioscience and biotechnology                       | Acquire fundamental knowledge of the functions of microorganisms   |
| First grade  | <ul style="list-style-type: none"> <li>●Research ethics (1 credit)</li> <li>●Bioscience and Biotechnology (2 credits)</li> </ul> | <ul style="list-style-type: none"> <li>●Applied and Molecular Microbiology (2 credits)</li> </ul> | <ul style="list-style-type: none"> <li>●Research and investigation                             <ul style="list-style-type: none"> <li>①Research and investigation of functional materials produced by microorganisms</li> <li>②Research and investigation of material production for environmental preservation</li> </ul> </li> <li>●Research work</li> </ul> |
| Second grade |  | <ul style="list-style-type: none"> <li>●Microprocess Engineering (2 credits)</li> </ul>           | <ul style="list-style-type: none"> <li>●Presentation of the research at a major-classified seminar</li> <li>●Presentation of the research at academic congress</li> <li>●Contribution to an academic journal</li> </ul>  |
| Third grade  |  |   | <ul style="list-style-type: none"> <li>●Presentation of the research at a major-classified seminar</li> <li>●Application for the doctoral thesis</li> </ul>  |

Degree: Doctor of Engineering