| | Faculty of Science and Technology, Department of Mechatronics Engineering |
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| Diploma Policy | The Department of Mechatronics Engineering confers a bachelor's degree (in engineering) to a student who has acquired the four abilities below, taking into account the abilities, qualities, and attitudes that students need in order to embody the Department's objective in developing human resources.<br><br>(1) An independent sense of ethics as an engineer, social adaptability, and the ability to see things objectively<br><br>(2) The ability to understand mechatronics systems with mechanical/electrical hardware and the corresponding component devices<br><br>(3) The ability to understand and apply the basic elements of electrical engineering, electronic engineering, and mechanical engineering<br><br>(4) The basic ability to understand product technologies in the fields of mechatronics or mechatronics systems engineering |
| Curriculum Policy | The Department of Mechatronics Engineering designs its curriculum on the bases of Department of Mechatronics Engineering core subjects (basic education and Department of Mechatronics Engineering course subjects), operating on a foundation of functional modeling, and a selection of specialized subjects (basic skill-development subjects: joint course subjects with related departments), which help students develop the basic academic ability for functional modeling, in order to achieve its educational and research-related goals and fulfill its objective in developing human resources. The curriculum policy is as follows.<br><br>(1) Liberal Arts Education, serving to bolster students' academic abilities through a systematic educational approach, comprises Foreign Language, Science of Physical Education, Humanities, Social Science, and other liberal arts subjects and also includes Basic Science and Technology Subjects such as Mathematics, Physics, Chemistry, and Ethics for Engineers. By giving students opportunities to study these subjects, the curriculum allows students to develop a broad perspective and sense of ethics that transcend their areas of specialty and gain the knowledge vital to pursuing their studies in specialized education.<br><br>(2) Specialized Education comprises a systematic, integrated framework of subjects that help students progress sequentially from basic knowledge to applied studies, deepening their specialized knowledge of engineering in order to enhance their design capabilities through real-world-oriented learning. By offering an organic, integrated fusion of lectures and related seminars, lab experiments, and practice labs, the curriculum enables students to obtain a broad range of specialized knowledge that goes beyond mere book learning and develop the adaptive ability to solve problems in response to social changes.<br><br>(3) Introductory education uses PBL to develop students' abilities to approach system architecture from an academic perspective. The Specialized Education curriculum also focuses on fostering students' individual motivations and, by offering related seminars, lab experiments, and practice labs on the themes of multiple subjects, allows students to pursue their interests through active learning. The curriculum also includes education through resources from related departments (inter-departmental education) and education designed to deepen students' levels of understanding in advanced study programs via IPBL. Graduation Research, which students conduct in their final academic year (year 4), allows students to foster their independence, cultivate collaborative relationships, and develop the lifelong assets of interdisciplinary learning and creative thinking skills.<br><br>(4) The Department of Mechatronics Engineering enforces strict grading policies and approves credits in accordance with syllabus content. The Department also lists said information on individual student grade reports and uses it, along with GPA, for the purposes of academic guidance and tracking. The Department also has a system for providing individual guidance from a comprehensive standpoint, taking student grades and attitudes into consideration, which allows students to study according to individual progress and future goals. |
| Admission Policy | The Department of Mechatronics Engineering aims to cultivate mechatronics engineers by implementing education and research in accordance with its objective in developing human resources, the diploma policy, and the curriculum policy. Enrollees must have a thorough understanding of the Department's objective in developing human resources, etc., and engage in their studies and research with sincerity and determination. The Department thus selects enrollees in accordance with the admission policy below, choosing students who demonstrate the following qualities and abilities.<br><br>(1) Students seeking admission via the general entrance examination: Strong basic academic abilities in mathematics, science, and English. Students seeking admission via an examination by commendation/special examination: Basic academic abilities in mathematics, science, and English, gained through steady, consistent studies in high school.<br><br>(2) The capacities for thinking, reasoning, and self-expression that form the foundation for using one's basic academic abilities in mathematics, science, and English to identify problems independently, explore possible solutions to the issues, and produce corresponding results.<br><br>(3) Students who have aspirations to thrive as technologists, the ability to strive actively in pursuit of those dreams, and an ambition to collaborate with a variety of partners in using engineering-oriented science and technology to contribute to society. |