

Faculty of Science and Technology, Department of Mathematics	
Diploma Policy	<p>The Department of Mathematics confers a bachelor's degree (in science) to a student who has satisfied the following requirements ((1), (2), and (3)) and earned the prescribed credits in accordance with our founding spirit and the Faculty's objective in developing human resources.</p> <p>(1) A broad educational background, a deep capacity for thinking, and the ability to contribute to the development of industry, education, and society from a broad perspective and strong ethical foundation.</p> <p>(2) A strong knowledge of mathematics, which represents the foundation of science and technology, and the ability to use that knowledge to solve a wide variety of problems.</p> <p>(3) The ability to explore social issues actively and work with others on solutions.</p>
Curriculum Policy	<p>The Department of Mathematics designs and implements its curriculum, comprising Liberal Arts Education and Specialized Education, to convey the essence and wonder of mathematics in a clear, ground-up fashion, accomplish its departmental educational goals, and nurture students with the abilities stated in the diploma policy.</p> <p>(1) Liberal Arts Education comprises Basic Interdisciplinary Subjects in Science and Technology and Basic Science and Technology Subjects. By giving students opportunities to study a wide variety of subjects, the curriculum nurtures a broad, interdisciplinary perspective and a strong sense of ethics. In addition, the curriculum enables students to acquire basic skills, including fundamental mathematical skills, logical thinking skills, communication skills, and information-utilization skills, and helps students develop the knowledge in mathematics and other fields that they will need to succeed in Specialized Education.</p> <p>(2) Specialized Education comprises a systematic educational curriculum, beginning with Basic Science and Technology Subjects and moving on from basics to application, that helps students deepen their specialized knowledge of mathematics. The Specialized Education curriculum operates on five core pillars—algebra, analysis, geometry, mathematical analysis of information, and computer science—to create an organic, integrated framework of lecture courses and related seminars and practice labs. Instead of focusing exclusively on computational skills, the curriculum fosters a far-reaching base of knowledge, an ability to think mathematically, and an ability to express things in mathematical terms, thereby nurturing a capacity for problem solving from a mathematical foundation.</p> <p>(3) In year 1, students take part in interrelated seminars and practice labs across multiple specialized subjects to engage in active learning. In Graduation Research, which students conduct in year 4, students develop the abilities to study actively and cooperatively through independent learning and presentations. This component serves to nurture a comprehensive, multifaceted perspective and capacities for creative thinking and expressing oneself mathematically, which represent lifelong assets.</p> <p>(4) The Department of Mathematics enforces strict credit and grading policies in accordance with the quantitative indices for each course. The Department also lists grades on individual student grade reports and uses the grades for the purposes of academic guidance and tracking. The Department has a system for providing students with individual guidance, taking GPA, learning behavior surveys, and grades, etc., into consideration, in order to help students study according to individual progress and future goals.</p>
Admission Policy	<p>The Department of Mathematics admits applicants who understand the Department's educational goals, grasp the diploma policy, and have acquired the following abilities and ambitions through prior education such as high school education.</p> <p>(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. Students seeking admission via the Comprehensive Mathematics Program: Strong basic academic abilities in mathematics, science, and/or English.</p> <p>(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 examine problems independently, tackle solutions voluntarily, and use those efforts to produce results.</p> <p>(3) A deep interest in mathematics and the ambition to contribute to society by working actively with a variety of partners and applying one's mathematical thinking skills.</p>