

Faculty of Science and Technology, Department of Materials Science and Engineering	
<b>Diploma Policy</b>	<p>The Department of Materials Science and Engineering confers a bachelor's degree (in engineering) to a student who has acquired the qualities and abilities listed below in accordance with our founding spirit.</p> <p>(1) A broad educational background, strong language skills, a broad perspective, and international mindset, the ability to make decisions from a strong ethical foundation, and the ability to identify ways to help develop society and demonstrate a willingness to cooperate with others.</p> <p>(2) A mastery of the basic components of science, engineering, and technology vital to material development and the ability to use that knowledge to solve various social problems.</p> <p>(3) The ability to learn actively, research independently throughout life, use the fruits of that ongoing learning process to benefit society, and work with others to help sustain and develop society.</p>
<b>Curriculum Policy</b>	<p>The Department of Materials Science and Engineering designs and implements the following curriculum to nurture students with the qualities and abilities stated in the diploma policy.</p> <p>(1) Liberal Arts Education comprises a liberal arts subject group that includes humanities, social science, language, and physical education, etc. By giving students opportunities to take classes in a variety of formats, including lectures, seminars, practice labs, and practica, the curriculum introduces students to a broad array of value systems, cultivates an international mindset, and helps students develop the qualities and abilities to see things from a multifaceted perspective. The curriculum also enables students to direct their activities toward social contribution on an ongoing, collaborative basis.</p> <p>(2) Specialized Education is divided into several stages. First, students focus on a group of basic science and technology subjects such as mathematics, physics, chemistry, information technology, and ethics for engineers, etc. Next, students begin studying a group of introductory subjects such as applied mathematics, electromagnetics, and mechanics of materials, etc. Finally, students learn to apply their knowledge in a group of specialized subjects rooted in the other subject groups. That multi-stage arrangement enables students to learn in the optimal class formats, including lectures, seminars, lab experiments, and practice labs. The curriculum also constitutes a matrix-like, systematic network of organically interconnected subjects that enables smooth, chronological progress. Through this process, students can refine the qualities and abilities stipulated in the diploma policy (requirement 2).</p> <p>(3) By giving students opportunities to learn actively in a variety of class formats, such as lectures, seminars, lab experiments, and practice labs in the subject groups set forth in requirements (1) and (2) of the educational curriculum under this policy, the curriculum enables students to understand our founding spirit, learn actively throughout life, and develop an openness to the diverse mix of views in society. In more specific terms, the curriculum allows students to collaborate with an understanding of others' perspectives in tackling problems and, even after graduating, continue to nurture a far-reaching perspective independently, cultivate an international mindset, make flexible, subtle adaptations to volatile conditions, and make proper contributions to society.</p> <p>(4) The Department of Materials Science and Engineering enforces strict credit and grading policies in accordance with learning outcomes and provides students with ongoing, detailed guidance based on learning behavior surveys, GPA, and earned credits, etc., in order to help students study according to their future goals.</p>
<b>Admission Policy</b>	<p>The Department of Materials Science and Engineering admits applicants who understand the diploma policy and have acquired the following qualities and abilities through prior education such as high school education.</p> <p>(1) Students seeking admission via the general admission entrance examination: Basic command of mathematics, science, and English, gained through studies in high school. 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.</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 identify problems independently, explore possible solutions to the issues, and produce corresponding results.</p> <p>(3) An interest in the materials-related science and technology central to the Department and an ambition to collaborate actively with a variety of partners to contribute to society.</p>