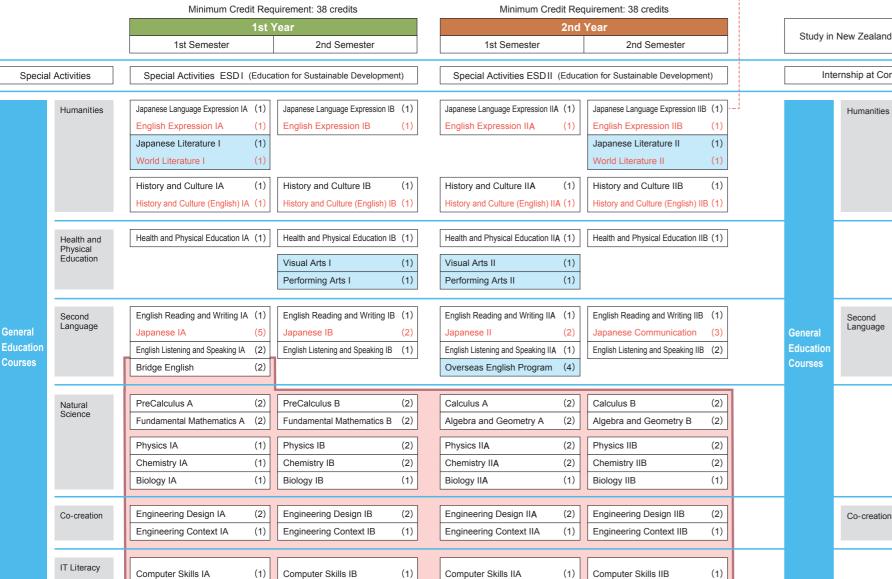
The courses in red are for international students and Japanese returnees whose English is stronger than their Japanese. For such students, language arts and humanities course are offered in English, and Japanese as a foreign language is offered in place of English language courses.



English STEM Education Courses

[English STEM Education Courses]

STEM stands for science, technology, engineering, and mathematics. It is a new curriculum based on the idea of interdisciplinary education in science and technology to teach students scientific thinking. The STEM education at International College of Technology is conducted in English. Students use English engineering terms and study science, math, physics, and chemistry in English. They accumulate knowledge from natural science courses and utilize it in co-creation courses, such as Engineering Design to realize their ideas and create new value.

[Engineering Design I, II]

Based on design thinking, we form teams and take on project-based activities aiming to create new value for a sustainable society. Teams examine the task, listen to feedback, and implement their ideas.

[Engineering Context I, II]

In this course, students learn principles of creating things and experiences, the ability to fully utilize IT and big data, and ethical issues concerning technology in society and environment.

(Visual Arts I, II)

Students become insightful members of global society by studying art and culture to gain a wide perspective, sensitivity, rich creativity, and the ability to express themselves. By interacting with people of various cultural backgrounds and technological fields, students will expand their skills in communication and cooperation.

[Performing Arts I, II]

Students develop good expression skills through practicing pronunciation, breathing techniques, speaking techniques, making speeches, acting, dancing, and becoming familiar with the world of music, drama, and dance. We also cover art, craft, and design. to increase students' sensitivity, deepen their knowledge in art, and cultivate their inspiration and expression.



Electrical Power Engineering (4) Mathematical Engineering (4) Sequence Control Engineering (4) Introduction to Networks (4) **Engineering Mechanics** (4) Mechanical Design Heat Transfer Engineering (4) Fluid Engineering (4) (4) Materials Science Basic Electrical Engineering (4) Basic Programming (4) (4) Programming Web Design (4) (4) **Business Computing** (4) Basic System Analysis Basic Marketing (4) (4) Management

Minimum Credit Requirement: 32 credits 3rd Year Course Name

Intensive course before studying abroad

(2)

(3)

(3)

(4)

Global Studies

Functional English

Technical English

| Engineering Design III

Electric Circuits I

Electronic Engineering

Sustainable Business Practices (4)

Basic Computer Engineering (4)

Basic Engineering Skills

Internship at Company / Project with Company

Humanities

Second Language

Co-creation

Specialized



Otago Polytechnic



[Global Studies]

In order for students to fully benefit from their academic year in New Zealand, we provide preparatory training in advance. This includes gaining a sufficient level of English for a smooth homestay experience and learning to respect and be compassionate to others. Students individually study the local geography, culture, and activities of their future campus area. This information is valuable for living a comfortable life there. They also prepare for the courses they will take.

(Functional English)

Students will learn the necessary skills to live a smooth life in New Zealand. They will learn the characteristics of English speakers and how to effectively communicate in their everyday life. The ability to adapt to a foreign environment and communicate their thoughts and feelings in familiar/unfamiliar circumstances will improve their skills in teamwork, communication, negotiation, cognitive thinking, and cooperating in a multi-cultural team project.

(Engineering Design III)

Students will gain an integrated knowledge of technology and engineering. Through repeated discussions with instructors and team members they choose and define a project area and prepare a design. This is followed by the production process and system creation. Students prepare reports on the purpose and manufacturing process of the project, while building actual prototypes, computer models, and/or computer systems. The outcomes of these projects are presented to other students, teachers, and corporations in various formats using English.

(Training in Basic Engineering)

Students learn to apply their knowledge in mathematics and physics through practice with CAD and 3D modeling.

(Specialized Field)

Students choose three courses which match the goals they set.

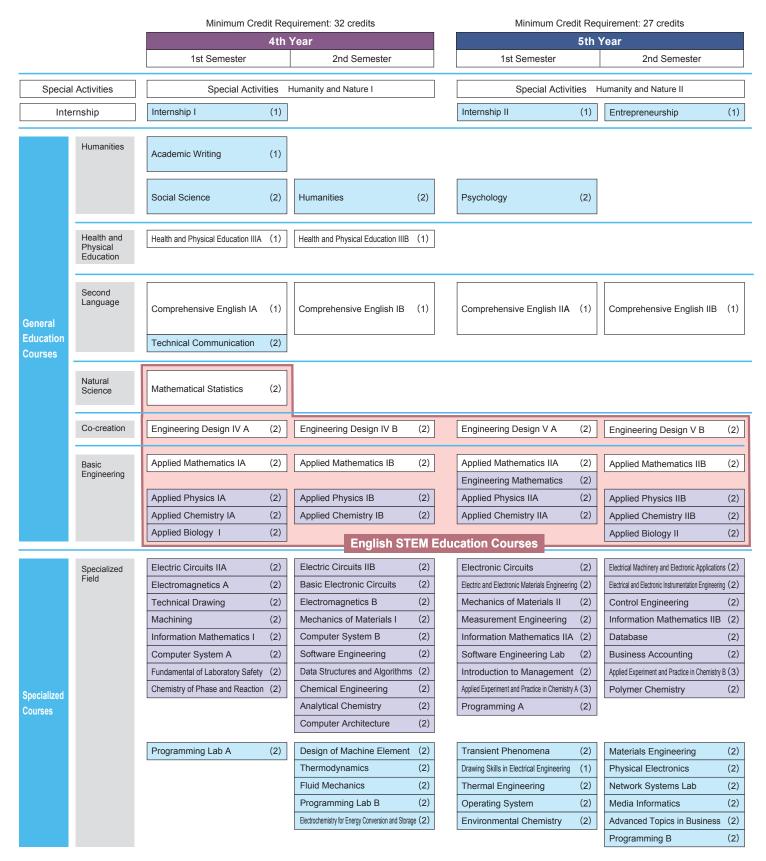
Required Courses (credit) Elective Courses (credit)

English STEM Education Courses

Otago Polytechnic Courses (credit)

12 13

Department of Science and Technology Curriculum 4th and 5th Years



[Engineering Design IV]

Students deepen their understanding of the local society and economy while cooperating with other engineers from other fields and utilizing their basic technological experience and skill to develop a proposed solution for a societal need on a broader scale. This activity teaches the ability to understand the true nature of a problem, analyze how to solve the problem, creatively plan, and communicate efficiently.

[Engineering Design V]

Students independently find real-life problems in society and learn the problem-solving process firsthand by taking on the mission of planning, researching, analyzing, experimenting, evaluating, and presenting. The results are introduced in the form of a product and a written report. Students have the opportunity to display their knowledge and/or skill in this activity and learn to challenge themselves as global innovators to realize the value they conceived.

Required Courses (credit)

Elective Courses (credit)

English STEM Education Courses

Compulsory Elective Courses (credit)