Because of our outstanding Chemistry and Materials Science research programs!

We are doing cutting edge research in Chemistry and Materials Science. In the Quacquarelli Symonds (QS) World University Rankings, which are an internationally recognized set of science rankings, for 2016, Tohoku University Chemistry and Materials Science were ranked near the top 30.

**Examples of Scientific Contributions of our Faculty Members**

Charge transfer to ground state ions produces free electrons
*Nat. Commun.*, 8, 14277 (2017)

In situ reversible ionic control for nonvolatile magnetic phases in a donor/acceptor metal-organic framework

Redox-assisted regulation of Ca²⁺ homeostasis in the endoplasmic reticulum by Erdj

Real-time intravital imaging of pH variation associated with osteoclast activity

Crosslinking reactions of 4-amino-6-oxo-2-vinylpyrimidine with guanine derivatives and structural analysis of the adducts

Visualizing optoelectronic processes at the nanoscale
Advanced Molecular Chemistry course offers a high quality chemical education and research environment

Outline of the Advanced Molecular Chemistry (AMC) Course

The AMC course is a fundamental chemistry curriculum with an emphasis on materials science. Students will be educated and do research in organic, inorganic, physical, polymeric, materials chemistry and biochemistry. The AMC course is designed to train future leaders in the field of materials science, which is playing an increasing role in the development of new technologies.

In particular, the AMC course is designed to help students develop the skills needed for identifying and solving research problems within science and technology. Lectures and laboratory classes are taught by faculty members in the Department of Chemistry and affiliated materials research institutes (IMR and IMRAM). The international character of the AMC course and its comprehensive curriculum will prepare students for global leadership roles in both academia and industry.

Curriculum

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1st year | 2nd year | 3rd year | 4th year

Admission

The admission process is divided into two stages. In the first stage, applicants are evaluated on the following bases: results of Secondary Education examinations or the Examination for Japanese Universities (EJU-test), an official high school transcript, and results from an English proficiency exam, such as TOEFL and IELTS, in the case of non-native English speakers. Applicants successful in the first stage will undergo an oral exam in chemistry, physics, and mathematics at the high school level and an interview. For more details on admission, application and scholarships, please refer to the FGL Program website.

Sendai City

Sendai is located about 300 km north of Tokyo on the Pacific coast of Honshu Island with a population of over one million people. In Sendai, students can experience the beauty of the four seasons as well as visit nearby beaches, ski resorts, and rivers (hot springs). Sendai has mild winters with little snow and warm summers. Throughout the year, in the Sendai area, there are a wide variety of cultural and sports events, which provide opportunities to experience various aspects of Japanese culture.

Scholarships

International students of outstanding academic ability may be eligible for the "President Fellowship for Undergraduates." The scholarship covers the entrance and tuition fees for four years. In addition, students will be allowed to live in Student House Sanjo for their first two years. Furthermore, students of sufficient academic ability may be eligible for a living expenses stipend for one year.

Support Offered by Tohoku University

- Financial Support
- Japanese Language Support
- Housing Support
- Tutor Support
- Career Support
- Counseling

Eligibility

- 18 years of age by September 30 of the year of entry
- 12 years of school education completed
- English proficiency: TOEFL, IELTS, etc.

Your generation needs leaders with the chemical know-how to maintain and advance their lives.