

# 創造理学コース

Creative  
Science  
Course



Check  
詳しくは  
コースHPへ!



基礎科学の学識と問題解決能力に加え、さらにイノベーションとグローバルの観点をあわせもつ人材を育成します。

全国の理学部のなかで、イノベーションとグローバルの観点から基礎科学の教育を行う本コースは、大変ユニークなものです。カリキュラムには、理学部各学科の専門の授業に加え、国際的視点と科学英語力を養成するための授業、企業や国内有数の研究所で活躍されている方々の講義、そして海外有力大学との交流などが組まれています。

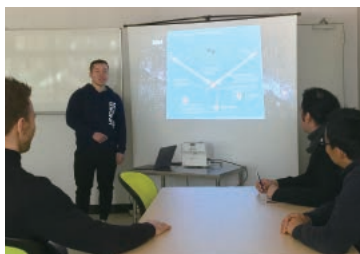
## PICK UP 特徴的な授業



### 科学英語表現Ⅱ (英語授業) Scientific English Communication II

論文の書き方とポスター発表の方法を学ぶ

Through this course, students acquire effective scientific communication skills; learn to select and organize the contents of an oral presentation, create compelling slides to support it, deliver the presentation effectively; learn how to create, promote and present scientific posters effectively.



### 先端科学Ⅰ (英語授業) Frontier of Science I

最先端の科学を英語でプレゼンテーションする

To keep update with recent discovery and important breakthroughs in the fields of science is the key objective of this course. In this course, students learn how to identify areas requiring further research and apply case-based reasoning.

## Student's Voice

### Exchange student in a Sister University



During the semesters of autumn 2018 and spring 2019 I went to Brno, Czech Republic as an exchange student at Masaryk University. Brno is the second largest city in Czech Republic and Masaryk university is one of the largest universities in Czech Republic. I applied to this university as a chemistry student, so I usually took chemistry classes. But international students could take any kind of class they want. I took a Czech language class and basketball class in the last semester. Teachers in Europe want students to have presentations and/or express their opinion. I did not have chance to do so in high school. But fortunately, I had a lot of opportunities to give presentations thanks to the Creative Science Course. These experiences were definitely a big advantage for me!!

創造理学コース4年(化学科) 鈴木 洋介さん

## カリキュラム

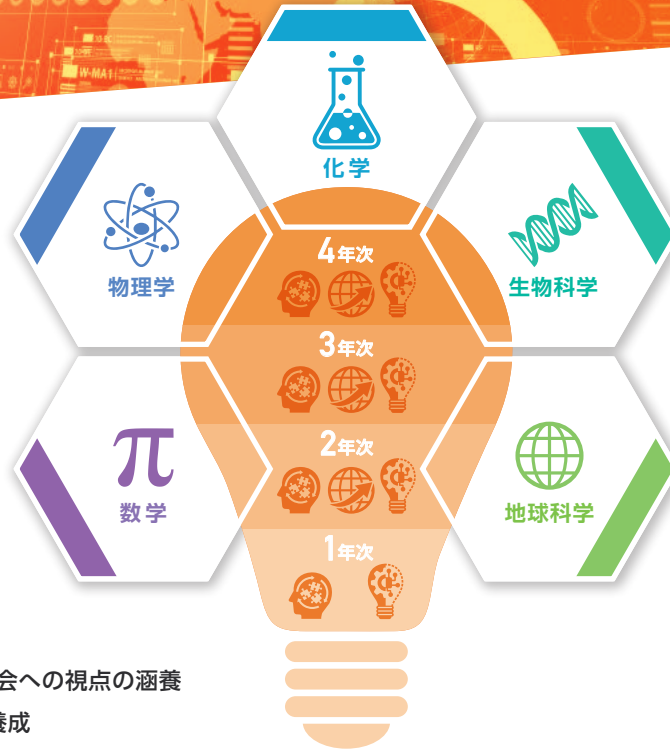
- 専門分野の知識と技術
- 基礎教養

各学科教養・専門科目



### 創造理学コース科目

- 自主的な研究者の育成
- 先端科学・イノベーション・社会への視点の涵養
- 国際的視点と科学英語力の養成



4年次

- 創造理学卒業研究I・II
- 先端科学III
- グローバルサイエンスイノベーション実習
- 公共理学実践演習I・II

3年次

- 創造理学実践演習III
- 先端科学II
- サイエンスイノベーション演習
- サイエンスイノベーション実習

2年次

- 創造理学実践演習II
- 科学英語表現I・II
- 短期グローバル研修
- 先端科学I
- サイエンスイノベーション入門

1年次

- 創造理学実践演習I
- 先端科学入門

## 創造理学コースにおける学習の紹介

複数の専門分野を学び、  
自分にあった学科を選択

1年生では学科には所属せず、複数の専門科目(数学、物理、化学、生物、地球科学)を履修する。2年進級時に自分が進みたい学科を選択する。

グローバルな視野を広げ、  
将来は国際的に活躍

香港科技大学に短期留学し、語学研修と研究施設見学、現地学生と英語での交流を行う。英語授業により英語コミュニケーション能力を磨く。

応用科学の視点を持ちつつ、  
基礎科学の知識と技術を習得

複数分野にまたがる基礎科学の知識と技術を機能的に融合させて、実社会に適用できる問題解決型のサイエンスを身につける。

## 研究室紹介

メヒア ディエゴ 准教授

数学

Mathematical Logic,  
Infinite Combinatorics, Forcing Theory

"Mathematics is the language of science". I am mainly motivated to research mathematics as a language itself, through the area of mathematical logic. I work in forcing theory, one of the most recent tools in this area, with applications in infinite combinatorics, in particular combinatorics of the real line.

日下部 誠 准教授

生物科学

Fish physiology, Adaptation,  
Temperature Tolerance, Osmoregulation

I am interested in adaptation strategies of fish that inhabit various environmental conditions such as salinity and temperature. In recent years, it has been reported that seawater temperature is rising due to the effects of global warming. How do fish deal with the rising seawater temperature? For cold-water fish such as salmon, an increase in water temperature is a critical issue for surviving. I am currently studying what physiological mechanisms control the survival in a high water temperature environment in fishes.

デュアガエル 准教授

地球科学

Aquatic plankton, Anthropogenic Perturbation,  
Individual-Based Modeling

Fascinated by the underwater world since my childhood, I study the response of planktonic organisms to anthropogenic perturbations. In particular, my research integrates data visualization and analysis and modeling to contribute to the understanding of how individual biology, physiology, behavior, as well as demographic and evolutionary processes influence the response of populations to different stresses.

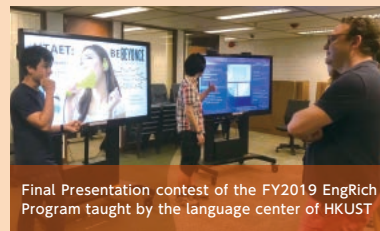
## OVERSEAS STUDIES

短期グローバル研修

One week at Hong Kong University of Science and  
Technology - English classes and Scientific activities



FY2017 group picture after the visit of the meteorological station of HKUST



Final Presentation contest of the FY2019 EngRich Program taught by the language center of HKUST

### STUDENT APPRECIATIONS

"This short-term study abroad gave me various experiences at the overseas university. It was a good opportunity to think what I should be doing now as a student."

[創造理学コース・生物科学] 石原 健さん

"In this study abroad I was able to improve my English!"

[創造理学コース・生物科学] 諏訪 敦也さん

"From the last presentation, I gain more confidence in talking in front of people!"

[創造理学コース・地球科学] 馬場 美邑さん

"I can speak English more fluently than before I came here!"

[創造理学コース・数学] 伊藤 武さん

### 取得できる資格

- 中学校教諭一種免許状(数学・理科)
- 高等学校教諭一種免許状(数学・理科)
- 放射線取扱主任者資格
- 甲種危険物取扱者資格
- 測量士補 ●学芸員資格

※取得できる資格は2年進級時の学科により異なるので、各学科のページでご確認ください。

### 学びの特色

I feel that the bond between the students and faculty staff is really close in the Creative Science Course, which will greatly help you to accomplish your aim in the Course. Thus, it is important to interact with the staff and students proactively. I hope that you will make the most of this opportunity to be active in various fields in the future.

[創造理学コース長] 土屋 麻人