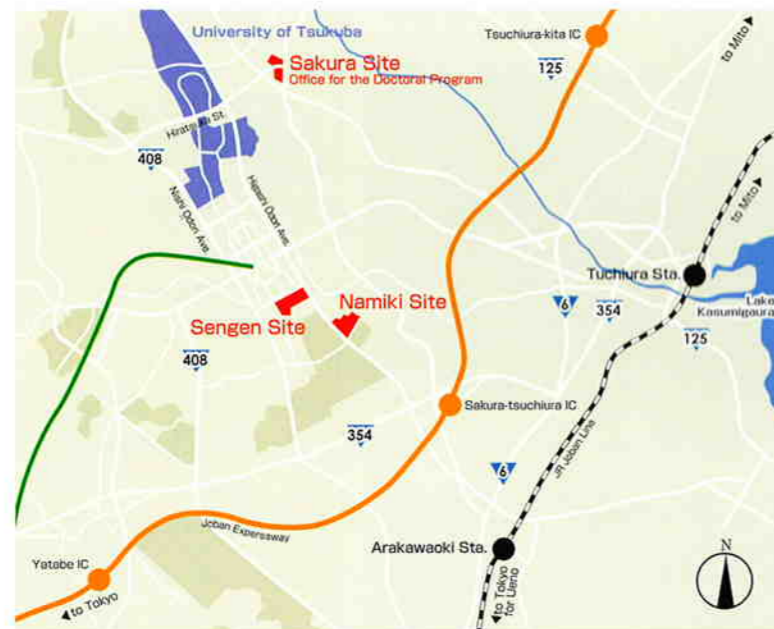




# Doctoral Program in Materials Science and Engineering

Graduate School of Pure and Applied Sciences  
University of Tsukuba



**Doctoral Program in Materials Science and Engineering,  
Graduate School of Pure and Applied Sciences  
University of Tsukuba**

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## Greetings



**Satoru INOUE**  
Professor, Chairman

The Doctoral Program in Materials Science and Engineering is operated jointly by the Graduate School of Pure and Applied Sciences at the University of Tsukuba and the National Institute for Materials Science (NIMS). Selected scientists from NIMS have joined the graduate school faculty and supervise the student's thesis research for a Ph.D. degree.

Materials Science and Engineering is a discipline that helps to develop and use materials for various engineering applications and is a key engineering field to support the infrastructures of the modern society, such as information, communication, construction, transportation, energy, environment, medicine and welfare. This program is comprised of three fields: Advanced Metallic Materials, Advanced Inorganic Materials, and Advanced Nano-Biomaterials and aims at educating students to become highly professional engineers or scientists in Materials Science and Engineering through hands-on research experience using the advanced experimental facilities and by participating in major research projects.

The faculty members of this program are involved in the education of the first two-year master course of Materials Science and Engineering in cooperation with the Frontier Science, Applied Physics, and Materials Science Programs of the Graduate School.

We would like to invite young graduate students to join the frontier research at NIMS.

### Development of Doctoral Program in Materials Science and Engineering

1992~

Collaboration between the University of Tsukuba and NIRM/NIRIM (Former institutes of NIMS) as Cooperative Graduate Program

2004~

Started the Doctoral Program in Materials Science and Engineering as Joint Graduate Program (18 Professors, 6 Students)

2005

Opened the special lecture "Nano Materials and Engineering".

2007

9 new professors joined (total 27 professors)

2008

The special lecture in English started in the Master Course of Materials Science and Engineering

## Training/Research

### State-of-the-art training

In our doctoral program, selected researchers in NIMS supervise students as faculty members. The students belong to NIMS (Sengen, Namiki or Sakura site, Tsukuba City, Japan) and can study by using the advanced experimental facilities and by participating in major research projects.

#### [Latest facilities]



EC-3DAP with delay line detector



Atom-discriminating electron microscope

### Seminar by Students



Our doctoral program adds a students' seminar to the curriculum. The seminar is conducted in English.

This seminar aims to confirm the student's progress in the doctoral thesis apart from improving presentation skill in the English language.

### International programs

Our doctoral program admits students from all over the world. In fact, half of students in our program are from abroad. (as of March 2006)

Most of official events (ex. orientation for enrollments and students' seminar) in our program are basically conducted in English. Moreover, the students are able to participate in some international exchange programs held by NIMS.



At Cambridge University

#### [Nano-tech summer school]

NIMS holds "Nano-tech summer school", by cooperation with Cambridge University, every year. Students from NIMS and Cambridge University join it and report and discuss their latest research progress.

This summer school aims at educating international young researchers who can play an important role in future materials science field.

Many students in our program take part in it.

## Framework of The Doctoral Program

