

<<Last Updated:2023/02/21>>

## Course Schedule Information

Course Code	88A509
Semester	Spring Term
Day and Period	Other
Course Name (Japanese)	国際交流特別講義 2 (国際ナノ理工学特論 A)
Room	
Course Name	International Exchange Special Lecture 2 (International Exchange Lecture on Nanoscience and Nanoengineering A)
Capacity	0
Course Numbering Code	88INES9U105
Required/Optional	O U I C P /バーチャル留学プログラム科目 基_290735 (On-demand)
Credits	1.0
Student Year	1,2,3,4,5,6
Field	
Instructor	MIYASAKA Hiroshi, TAKEDA Seiji
Course of Media Class	Not Applicable

※About Course of Media Class

"Course of Media Class" are classes in which more than half of the classes are held in places other than classrooms by making advanced use of various media.

Undergraduate students can include up to 60 credits in media class course as requirements for graduation.

Even if this is not the case, we may hold classes using the media.

## Detailed Syllabus Information

Course Subtitle	International Exchange Lecture on Nanoscience and Nanoengineering A
Language of the Course	English
Type of Class	Lecture Subject
Course Objective	Students can attend the class taught in English by foreign and domestic lecturers and learn how to think various subjects on nanoscience and nanoengineering internationally together with the foreign students in Groningen through video live lecture system.
Learning Goals	Students not only attend the class taught in English but also learn the European style of lecturing and how to capture main objects for the lecture. Students are requested to ask various kinds of questions which they do not understand or want to study further. Through the mutual questions or comments among the international students, the students in Osaka can also know the interesting points and the way of thinking of the students in Groningen and Berlin.
Requirement / Prerequisite	Those who are registered for the Graduate Program for Advanced Interdisciplinary Studies or the Graduate Minor Program are allowed to take this subject with priority. Since extra seats are usually available, the lecture is also open to other students.
Class Plan	Open on five Fridays from 16:00 to 19:00 in October and November. The detailed information about the subjects and the lecturer schedule will be put on the following website: <a href="http://www.insd.osaka-u.ac.jp/nano/01_daigaku/index.html">http://www.insd.osaka-u.ac.jp/nano/01_daigaku/index.html</a>  Preliminary subjects are as follows: Molecular Devices and Machines, Quantum optical properties of nano-systems and devices, Optical manipulation of semiconductor nanomaterials, X-ray techniques for imaging at the nanoscale, Radiation pressure as a new tool to control the reactivity of local photopolymerization, From single-molecule photophysics to super-resolution and optical imaging of nano-structures, Development of new kind of red

	LED of semiconductor doped with rear-earth ions, Supramolecular organization in organic devices, etc.
<b>Independent Study Outside of Class</b>	Since the documents for lectures are delivered as electronic files in advance, it is advisable to utilize them for preparation and review the lectures. Those students who do not understand a part of the content should review the lecture by watching the video streaming of the recorded lecture through the internet.
<b>Textbooks</b>	The detailed document for each lecture is delivered on site or put on the following website a few days before each lecture: <a href="http://www.insd.osaka-u.ac.jp/nano/01_daigaku/index.html">http://www.insd.osaka-u.ac.jp/nano/01_daigaku/index.html</a>
<b>Reference</b>	
<b>Grading Policy</b>	Attendance attitude (50%, evaluate mini reports, question, and activeness) and final report (50%).
<b>Attendance and Student Conduct Policy*</b>	Please contact the Graduate Students Section or the professor/instructor in charge when you will not be able to attend lectures due to infectious disease originating at the university, fever or bereavement when losing a loved one.
<b>Other Remarks</b>	face-to-face class or online class The program will be shared by the students in Groningen through real-time TV lecture systems. These lectures are a part of the formal lectures of the International Top Master Nanoscience Course in the University of Groningen. Those students who feel strong interest in the Top Master Course, have a chance to apply for the formal entrance examination to the Top Master Course at the beginning of February next year. See the following: <a href="http://www.rug.nl/research/zernike/education/topmasternanoscience/">http://www.rug.nl/research/zernike/education/topmasternanoscience/</a>
<b>Special Note</b>	Series of omnibus exchange video live lectures of 10 subjects in 5 days were taught by 10 lecturers, among whom five belong to University of Groningen and the rest of five belongs to Osaka University. This course will be also shared by the universities in Vietnam, Malaysia and Thailand which collaborate with INSD on the nano-program. From the end of July to the beginning of August, the summer school under the collaboration with the University of Tsukuba is held for eight days: 4 lecturers, each with eight times. A part of the lectures are transmitted from Tsukuba as TV live lectures. The students who are interested in these lectures are welcome to take these lectures as International Exchange Lecture on Nanoscience and Nanoengineering B and C. Those students who want to take the third lecture in the summer school can get the credit as International Exchange Lecture on Nanoscience and Nanoengineering A.  When students with disabilities take this course and request reasonable accommodation, please contact the Graduate Students Section or the instructor in advance and discuss the concerns.
<b>Office Hour</b>	Those who have any question should send e-mail to the following address: <a href="mailto:nano-program@insd.osaka-u.ac.jp">nano-program@insd.osaka-u.ac.jp</a>
<b>Keywords</b>	
<b>Messages to Prospective Students</b>	When the details of the lectures are decided, the registration for taking the lectures will start. It is advisable to register in advance. Refer to the poster and home page of the INSD. E-mail: <a href="mailto:nano-program@insd.osaka-u.ac.jp">nano-program@insd.osaka-u.ac.jp</a> , Home page: <a href="http://www.insd.osaka-u.ac.jp/nano/">http://www.insd.osaka-u.ac.jp/nano/</a>
<b>Course conducted by instructors with practical experience</b>	

## Instructor(s)

Instructor Name	Name (hiragana)	Affiliation, Title, Course	Office	Extension	E-mail
Hiroshi Miyasaka	みやさか ひろし	R3 Institute for Newly-Emerging Science Design			<a href="mailto:miyasaka@chem.es.osaka-u.ac.jp">miyasaka@chem.es.osaka-u.ac.jp</a>
Seiji Takeda	たけだ せいじ	R3 Institute for Newly-Emerging Science Design			<a href="mailto:takeda@insd.osaka-u.ac.jp">takeda@insd.osaka-u.ac.jp</a>

## Cautions for Students

※出欠席及び受講に関するルール：令和5年度以降のシラバス項目 / \*Attendance and Student Conduct Policy: field available from FY2023