

290735 国際ナノ理工学特論 A 2025 (1 単位)
 290735 International Exchange Lecture
 on Nanoscience and Nanoengineering A (1 credit)

Lectures on nanoscience and nanoengineering are given from University of Osaka and University of Groningen in Nederland.

- 講義場所: 豊中キャンパス 豊中共創棟 A、3 階 304 号室(およびライブ web 生中継)。
- 受講対象者: 留学生を含む大学院生。ナノ高度学際教育研究訓練プログラム高度副プログラム、副専攻プログラム(ナノプログラム)とカデットプログラム、卓越大学院、理工情報系オーナー大学院プログラムの大学院学生。また学部生、研究生、教職員の聴講も歓迎します。
- 単位認定: 5日間の講義に対して3日以上のお出席(毎回の短いレポート提出を含む)。9テーマの講義の中で、2つのレポート提出。
- 申し込み方法: 各自 KOAN で登録するとともに 10 月 7 日(火曜)までに、
nano-program_2@office.osaka-u.ac.jp 宛に下記の項目を明記して申し込んで下さい。受講生には講義資料、講義へのアクセス方法をお知らせします。メールのタイトルは、「国際ナノ理工学特論 A 受講申し込み」として下さい。(講義のため講義室にいられた場合には、現地で直接登録も可能です。)
必要項目: 氏名、学籍コード、所属(研究科・学部、専攻・分野・学科、D/M/B、学年、所属研究室)、メールアドレス、現在ナノプログラム(修士・博士を含む)受講の有無、カデット・卓越大学院・理工情報系オーナー大学院プログラム受講の有無。

- **Lecture Room:** (Toyonaka Campus) R.N. 304, 3rd floor of Toyonaka Co-Creation Building A and on-time Web.
- **Applicants:** Domestic and foreign graduate students. Graduate-school students who take “Graduate Program for Advanced Interdisciplinary Studies for Education, Research and Training on Nanoscience and Nanotechnology”, “Interactive Material Science Cadet Program”, “Multidisciplinary PhD Program for Quantum Beam”, and “Honors Program in Science, Engineering and Informatics”. Undergraduate students, other students, and staff members are also welcome.
- **Grading Policy:** Attendance more than 60% among the five days and submission of short report every time, and a report on the summary of two topics out of the nine lectures.
- **Deadline and method of application:** Send the following information either in Japanese or in English to the INSD staff who is in charge. E-mail address: **nano-program_2@office.osaka-u.ac.jp** with the mail title, “Registration of International Exchange Lecture A”.
Information needed: Full name, student registration code, affiliation (graduate school/school, department, D/M/B, school year, affiliated research laboratory), E-mail address.
 (You can directly registrate at the lecture room in the lecture time)

Schedule

	Date	time	Lecturers	Topics
0	10/10 (Friday)	16:00-18:15	Tadashi Itoh	Introduction, photophysics of quantum dots, Video address and lecture by Prof. Ben Feringa
1	10/17 (Friday)	16:00-18:00	Antonia Gubisic-Cabo Yoshitada Morikawa	Kinetic In situ Single-layer Synthesis (KISS) technique for large-area 2D materials exfoliation Computational materials design for surfaces
2	10/24 (Friday)	16:00-18:00	Erika Covi Satoshi Hamaguchi	Memristive and CMOS technologies Fundamentals of Atomic Layer Processes for Semiconductor Manufacturing
3	11/7 (Friday)	17:00-19:00	Jagoda Sławińska Hidekazu Tanaka	Spin-orbit-related phenomena for energy-efficient electronic devices Electronic phase change oxide
4	11/14 (Friday)	17:00-19:00	Jan Anton Koster Yasuhiro Nakazawa	Perovskite solar cells: numerical modelling Molecular superconductors and their thermodynamics

(Lecturers in Groningen University are tentative.)