

<<Last Updated:2022/02/28>>

Course Schedule Information

Course Code	88A063
Semester	Fall and Winter Term
Day and Period	Other
Course Name (Japanese)	国際交流特別講義 3（産業科学特論）
Room	
Course Name	International Exchange Special Lecture 3(Advanced Lectures from Science to Industry)
Capacity	0
Course Numbering Code	88INES9U105
Required/Optional	
Credits	2.0
Student Year	1,2,3,4,5,6
Field	
Instructor	Nogi Masaya,Hosokai Tomonao
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 Name	Advanced Lectures from Science to Industry
Language of the Course	English
Type of Class	Lecture Subject
Course Objective	SANKEN at Osaka University has been conducting top-level research works in the wide range of information, quantum, advanced materials, beam, biological, molecular, nanotechnology, and AI science. In this lecture, we will not only introduce the latest research results in these fields, but also explain the future trends in research and development. Moreover, from our lecture, you will be received the proposals how to connect the research knowledge to industrial technology.
Learning Goals	Students who take the course will achieve the following three goals. 1. Gain knowledge about the advanced research in SANKEN 2. Understand the procedure on how to implement the results of basic research in society 3. Acquire a thinking skill of connecting the dots to form a line
Requirement / Prerequisite	for undergraduate students online lecture
Class Plan	Oct 6 (Thr) 5th period Opening remarks by SANKEN director "Advanced Nanostructured Materials for Future Society" by Prof. Sekino "Laser-driven accelerator ; Particle acceleration by plasma and extremely intense light." by Prof. Hosokai & Prof. Jin Oct 6 (Thr) 6th period "New Materials for Next Generation Batteries" by Prof. Yamada Oct 7 (Fri) 5th period "Real-time Forecasting of Big Time-series Data: Foundations and Challenges" by Prof. Sakurai & Prof. Matsubara "Lithography" by Prof. Kozawa

	<p>Oct 7 (Fri) 6th period "Paper is white, or not?" by Prof. Nogi</p> <p>Oct 13 (thr) 5th period "Artificial intelligence that talks by listening to human speech" by prof. Komatani "Emotion-driven Evolutionary Music Composition based on Physiological Sensors" by Prof. Numao</p> <p>Oct 13 (Thr) 6th period "Advanced Sensing Technologies using Artificial Intelligence" by Prof. Washio "What is Gait Recognition?" by Prof. Yagi</p> <p>Oct 14 (Fri) 5th period "Spintronics for mechanical sensing" by Prof. Chiba "Flexible and stretchable electronics" by Prof. Sekitani</p> <p>Oct 14 (Fri) 6th period "Quantum technologies using semiconductor quantum dots" by Prof. Oiwa</p> <p>Oct 20 (thr) 5th period "Tackling Threats of Multidrug-Resistant Bacteria" by Prof. Nishino "Biosensors using biomolecular interactions" by Prof. Kuroda</p> <p>Oct 20 (Thr) 6th period "Innovation by genetically-encoded luminescent proteins" by Prof. Nagai</p> <p>Oct 21 (Fri) 5th period "Photochemistry for materials and biology" by Prof. Fujitsuka & Prof. Kawai "Sustainable approaches to fine chemical synthesis" by Prof. Takizawa</p> <p>Oct 21 (Fri) 6th period "Chemical Control of Epigenetics" by Prof. Suzuki "Impact of DNA and RNA binding small molecule on Chemical Biology" by Prof. Nakatani</p> <p>Oct 27 (thr) 5th period "Nanoscience and Nanotechnology" by Prof. Ie & Prof. Taniguchi</p> <p>Oct 27 (thr) 6th period "Nanoscience and Nanotechnology" by Prof. Ie & Prof. Taniguchi</p> <p>Oct 28 (Fri) 5th period "Nanoscience and Nanotechnology" by Prof. Ie & Prof. Taniguchi</p> <p>Oct 28 (Fri) 6th period "Nanoscience and Nanotechnology" by Prof. Ie & Prof. Taniguchi</p>
Independent Study Outside of Class	Preparing reports for homework
Textbooks	Supporting materials will be distributed during the classes
Reference	It will be shown during the classes if needed
Grading Policy	Participation 50 % and reports 50 %
Other Remarks	
Special Note	<ul style="list-style-type: none"> Any student with a disability who needs special accommodations, please inform the office in your department well in advance of the term start and get in contact with the instructor as early in the term as possible, so that we can discuss your specific needs.
Office Hour	
Keywords	
Messages to Prospective Students	

Instructor(s)

Instructor Name	Name (hiragana)	Affiliation, Title, Course	Office	Extension	Fax	E-mail

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Cautions for Students