

<<Last Updated:2022/03/14>>

Course Schedule Information

Course Code	88A057
Semester	Fall Term
Day and Period	Thu1
Course Name (Japanese)	国際交流特別講義 2 (医薬合成化学特別講義)
Room	
Course Name	International Exchange Special Lecture 1(Special Lecture on Organic Chemistry for Drug Development)
Capacity	0
Course Numbering Code	88INES9U105
Required/Optional	
Credits	1.0
Student Year	1,2,3,4,5,6
Field	
Instructor	ARISAWA Mitsuhiro
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	International Exchange Special Lecture 1(Special Lecture on Organic Chemistry for Drug Development)						
Language of the Course	English						
Type of Class	Lecture Subject						
Course Objective	Low molecule organic compounds related to them are indispensable for the development of pharmaceutical field research such as development of medicines and elucidation of life phenomena, knowledge and technology are indispensable for freely synthesizing the compound. In this lecture, based on the knowledge gained in lectures of "Undergraduate Organic Chemistry", "Organic Pharmaceutical Chemistry" and "Special Lecture on Chemical Manufacturing Chemistry" at Graduate School, drugs and drug candidate compounds and biologically active natural organic compounds etc. Learn about advanced and latest "organic synthetic chemistry" which is necessary for synthesizing in a similar way. It consists of lectures and discussions focusing on various carbon-carbon bond forming reactions and synthesis of inter carbon compounds.						
Learning Goals	Attainment target 1. Explain the formation of a carbon-carbon single bond via an enolate anion. 2. Explain the carbon-carbon bond formation using organometallic reagents. 3. Explain the formation of a carbon-carbon π bond. 4. Explain the synthesis of carbocyclic compounds.						
Requirement / Prerequisite	Since we will advance lecture on the premise that there is basic knowledge of organic chemistry, we need knowledge of undergraduate "organic chemistry" · "organic medicinal chemistry" degree.						
Class Plan	Time	Course content	Type	Place	Professor name	Material	Time length (min)
	1	1)	Lecture	Lecture Room B	Arisawa/Fujioka	Textbook	90
	2	1)	Lecture	Lecture Room B	Arisawa/Fujioka	Textbook	90
	3	2)	Lecture	Lecture Room B	Arisawa/Fujioka	Textbook	90
	4	2)	Lecture	Lecture Room B	Arisawa/Fujioka	Textbook	90

	5	3)	Lecture	Lecture Room B Arisawa/Fujioka	Textbook	90
	6	3)	Lecture	Lecture Room B Arisawa/Fujioka	Textbook	90
	7	4)	Lecture	Lecture Room B Arisawa/Fujioka	Textbook	90
	8	4)	Lecture	Lecture Room B Arisawa/Fujioka	Textbook	90
	Detailed Course Content and Expected Achievement Attainment target 1. Explain the formation of a carbon-carbon single bond via an enolate anion. 2. Explain the carbon-carbon bond formation using organometallic reagents. 3. Explain the formation of a carbon-carbon π bond. 4. Explain the synthesis of carbocyclic compounds.					
Independent Study Outside of Class	To read the textbook in advance and to confirm the difficult part to understand.					
Textbooks	George S. Zweifel, Michael H. Nantz / Modern Organic Synthesis / W. H. Freeman; 1st edition (March 17, 2006) / ISBN-10: 0716772663 ISBN-13: 978-0716772668					
Reference	Warren Organic Chemistry (2nd edition) [I, II] Tokyo Kagaku Dojin Bruce Organic Chemistry (7th Edition) [I, II] Kagaku Doujin Bolhart Shoa modern organic chemistry (6th edition) [I, II] Kagaku Doujin Smith Basic Organic Chemistry (3rd edition) [I, II] Kagaku Doujin Transition metal catalyzed reaction for organic synthesis (by Jiro Tsuji) Tokyo Kagaku Dojin					
Grading Policy	[Overall evaluation] Evaluate with the small test (100%) for each lecture. 【Formative evaluation】 After grasping the degree of comprehension of the students through reflection of exercises and questions during the lesson, they are reflected in the lesson.					
Other Remarks	Since lectures are conducted in cooperation with "Special lecture on chemical manufacturing chemistry", it is desirable to take lectures in conjunction with this lecture.					
Special Note	It is an advanced subject of the model core curriculum.					
Office Hour	Mitsuhiro Arisawa (06-6879-8226, arisaw@phs.osaka-u.ac.jp, main building 5 floor 508) <Office Hour: Monday 1 pm - 2 pm>					
Keywords						
Messages to Prospective Students						

Instructor(s)

Instructor Name	Name (hiragana)	Affiliation, Title, Course	Office	Extension	Fax	E-mail
No data found						

Cautions for Students