

山形大学大学院基盤教育

Institute for the Promotion of General Graduate Education (IPGE)

## 2024 Basic Graduate Education

- Elective compulsory courses aiming to acquire "compound eye" across graduate schools
- It consists of two courses: a university-wide course that is the basis of knowledge regardless of the literacy (field) and a course offered by each graduate school in order to open each specialty to other graduate schools.

## **Courses offered University-wide courses** by each graduate school Social and Introduction to **Fundamental** Career **Global Materials** Skills for Management of Cultural System Innovation Management Technology Researchers Innovation I (1 credit) (1 credit) (1 credit) (1 credit) (1 credit) [First semester] Artificial intelligence design practice (1 credit) The Special Intellectual Academic Data Overview: the Lecture of the Property and Up-dated Science Skills future of food Research Ethics Medical Science (1 credit) (1 credit) (1 credit) (1 credit) (1 credit) [Second semester] Interdisciplinary Communications and Collaboration (1 credit) [Year-round] Practice for Interdisciplinary [Others] Research (1 credit)

Lectures using ZOOM streaming (Participation is also possible in each campus lecture room)





KJ: Kojirakawa, TO: Tsuruoka, YZ: Yonezawa

Course	Person in charge	Brief overview	Date	Lecture room	E N
Career Management	Prof. SHIMODAIRA	Learn about the career path after graduate school, which is necessary for working independently as a researcher / highly professional worker.	Wed 7-8 periods	Zoom	$\circ$
Fundamental Skills for Researchers	Prof. TOMIMATSU	Deepen understanding of these basic skills through lectures on various presentations and research management skills in various fields.  Think about efforts to discover and solve problems to improve your skills.	Fri 9-10 periods	Zoom	
Global Materials System Innovation	Prof. HIGASHIHARA	Acquire knowledge from the basics of materials to their applications.  Acquire the abilities, knowledge, technical skills, and specialized skills required of global human resources.	Thu 9-10 periods	KJ: Zoom YZ: 中示範A TO: Zoom	0
Social and Cultural Innovation I	Prof. WATANABE, Prof. NAKAMURA, Prof. UTSU, Prof. KOBAYASHI, et al.	Learn a bird's-eye view of "culture" in relation to "society" and acquire analytical skills for the issues facing modern society.  Acquire the ability to respond to social changes by accurately understanding the causes of problems.	Wed 1-2 periods	Zoom	
Introduction to Management of Technology	Prof. ONO, Prof. NODA, Prof. TAKASAWA	Overview of technology management as a whole and deepen understanding of basic knowledge that is the basis of specialized subjects in the management field.	Intensive	*Details will be announced on the WebClass	
Artificial Intelligence Design Practice	Prof. TAKAHASHI	To acquire basic knowledge of machine learning, which is a fundamental technology for AI (Artificial Intelligence). Through programming exercises, acquire the basic skills to implement a series of machine learning processes.	Fri 3-4 periods	Zoom	$\triangle$

EN: O= Subtitling and English-language materials,

[Second semester (October-March)] $\triangle$ = English-language materials.						
Course	Person in charge	Brief overview	Date	Lecture room	E N	
Data Science	Prof. YASUDA. Faculty in charge of each campus, et al.	Understand the latest situation of data science and the technologies that compose it, and learn the basic methods of data analysis.  Acquire knowledge and basic skills to solve problems by applying data science in research and work.	Thu 7-8 periods	Zoom	$\circ$	
Academic Skills	Prof. OCHIAI, Prof. Karolin JIPTNER	Group (1): Classes will be taught in lecture style with some practical/group activities. The class will be held mostly in English and partly in Japanese. The class is scheduled to take place every two weeks. Group (2): Classes will be held in Japanese. The content is the same as Group (1).	Wed 1-2 periods	Zoom		
Interdisciplinary Communications and Collaboration	Prof. FURUSAWA	Introducing cutting-edge content related to interdisciplinary collaboration and interdisciplinary fusion in science, technology, and society. Understand the elements necessary for understanding, collaborating, and creating mechanisms that transcend the boundaries of fields.	Wed 7-8 periods	Zoom	$\circ$	
The Special Lecture of the Up-dated Medical Science		Understand the actual and future prospects surrounding 21st century medical care, and deepen the understanding of medical ethics and their problems.		e-learning		
Overview: the future of food	Prof. FUJISHINA	Think about the future of food from upstream to downstream such as production, processing, brewing, distribution, and safety, and acquire basic knowledge about "food" regardless of the frame of specialization.	Tue 7-8 periods	Zoom		
Intellectual Property and Research Ethics	Prof. OGURA	Acquire basic knowledge and ideas about intellectual property and ethics, which are indispensable for advancing research activities.	Intensive	*Details will be announced on the WebClass		

[Others]

EN:  $\bigcirc$  = Group(1) is mostly in English.

Course	Person in charge	Brief overview	Date	Lecture room	E N
Practice for Interdisciplinary Research (Year-round)	Prof. FURUSAWA	Experience the practice of cross-disciplinary collaboration through practical training in different field laboratories, in different fields of industry, in research facilities in different fields.	As needed	*Details will be announced on the WebClass	0