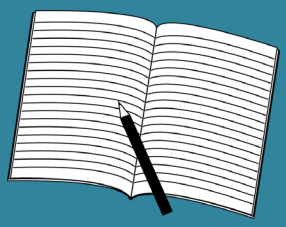
Handbook for Graduate Students



Division of Pharmaceutical Sciences (Master's Level Section of Integrated Course)

2023

金沢大学
KANAZAWA UNIVERSITY

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Graduate School of Medical Sciences
Division of Pharmaceutical Sciences, Master's Level Section of Integrated Course
Number of students: 38

● Admission Policy (AP)

The objective of this course is to produce scientists having a broad knowledge and research capabilities ranging from basic to applied drug discovery science with an international perspective. Through education/basic research focusing on the chemical, physical, and biological aspects of various physiologically active substances including pharmaceutical products, outstanding scientists who can contribute to the life sciences in general, including drug discovery, will be trained. Specifically, we will produce personnel who will play an active role as company researchers, academic researchers, and medical representatives (MRs) in pharmaceutical, chemical, and food-related industries; researchers in public institutions; and government officials in the fields of medical care, health and welfare, pharmaceutical affairs, and environmental sciences. Those who have the motivation and qualification to work in these fields in the future, regardless of the department from which they have graduated, will be accepted.

The basic policy for selecting students for admission will be to focus on those with a certain level of academic proficiency (academic major and English skills) and have a strong intention to work actively in the aforementioned fields in the future. In the selection process, basic academic and English proficiency, logical thinking ability, and the ability to express themselves will be comprehensively assessed through examinations and interviews.

● Curriculum Policy (CP)

[Basic policy on the curriculum]

In this course, a curriculum structure with a hierarchical and multi-track structure is adopted in order to cultivate a wide range of knowledge and research capabilities from basic to applied research in academic fields with pharmaceutical sciences at the core.

[Basic policy on the educational content and educational methods (curriculum implementation)]

1. Educational content

(1) Acquire an ethical approach, knowledge to a wide range of basic to applied fields, and cutting-edge specialized knowledge and skills in specific fields required for carrying out research projects.
(2) Acquire English proficiency to be able to play an active role in the international community and cultivate reading comprehension, and skills in explanation, information collection, discussion and communication.
(3) Through cutting-edge knowledge and research activities, students will acquire the ability to carry out studies from the formulation of a problem setting to its solution.

2. Teaching method

(1) In order to acquire a wide range of knowledge in the early stages of the course, and to gradually acquire cutting-edge knowledge in specific fields, the lectures are arranged in a hierarchical manner, starting with Essential GS Courses, consisting of "Introduction," "Advanced Courses," "Experimental Techniques," and "Advanced Seminars." In addition, a group of courses spanning the three fields of "Pharmachemistry," "Biopharmaceutical Science," and "Precision Medicine" is provided after "Introduction."
(2) In order to cultivate a wide range of knowledge, an international perspective, proficiency in English, information collection skills, and communication ability that can be used in the international community, we will offer specialized English courses, classes held in English, and "Free study framework."
(3) "Exercises" and "Practical Training" courses are arranged in order to develop the ability to solve new problems through exercises and research activities in specialized fields.

[Evaluation of learning outcomes]

(1) Standards and methods for evaluating learning outcomes are indicated in the syllabus for each course.
(2) The three qualities and abilities listed in the Diploma Policy will be evaluated through examinations and reports in lectures, exercises, practical training, and free study framework courses.

(3) Comprehensive evaluation of academic achievements will be conducted by Qualifying Examination (QE), master's thesis, or the outcomes of research concerning a specific subject, as well as oral presentations and discussion.

- **Diploma Policy (DP)**

[Basic policy on certification of completion and conferment of degrees]

The objective of this course is to nurture students who will have acquired research capabilities in an academic field of pharmaceutical sciences.

Students are required to receive the necessary research guidance, complete lectures, earn at least the prescribed number of credits, and meet the prescribed standards for the English proficiency test. A master's degree (Pharmaceutical Sciences) is awarded to students who have passed the QE (Qualifying Examination), the master's thesis, or the outcomes of research concerning a specific subject, as well as oral presentations and discussion.

[Qualities and abilities that students must acquire]

(1) Acquire an ethical approach, knowledge to a wide range of basic and applied fields and the high research ability required to be a drug discovery researcher.

(2) Acquire an international perspective and English proficiency to be able to play an active role in the international community.

(3) Have a desire and an attitude for self-improvement and to be able to carry out drug discovery research from the formulation of a research problem to its solution using a wide range of knowledge and high research ability.

List of Course Lectures

Division of Pharmaceutical Sciences, Master's Level Section of Integrated Course, Graduate School of Medical Sciences

Course category			Name of the course lecture	Faculty in charge	Timetable no	Number of credits			Timing of the lectures	Remarks
						Compulsory	Compulsory elective	Elective		
Lectures	GS Basic Courses for Postgraduates		Laboratory Rotation Ⅰ	Faculty in Division of Pharmaceutical Sciences, Graduate School of Medical Sciences	★	0.5			Q1～Q2	
			Laboratory Rotation Ⅱ	Faculty in Division of Pharmaceutical Sciences, Graduate School of Medical Sciences	★	0.5			Q1～Q2	
			Research Ethics	Educational Affairs Committee, and Institute of Liberal Arts and Sciences	02901	1			Q1	
			Data Science in Society 5.0	Yamane, Hayashi	※		1		Q3 or Q4	≥1 credit
			Advanced Science and Technology in the Next Generation	Yoneda	02908		1		Q2	
			Smart Science and Technology for Innovation	Nishiyama and others	※		1		Q3 or Q4	
			Innovation Methodology	Faculty in Graduate School of Natural Sciences & Technology	※		1		Q1 or Q2	
			Mathematical,Date Science and AI Basic	Faculty in Division of Pharmaceutical Sciences, Graduate School of Medical Sciences	※		1		Q2 or Q4	
			Human and social challenges	Faculty in Graduate School of Human and Socio-Environmental Studies	※		1		Q2 or Q4	≥1 credit
			Management of Technology	Graduate School of Natural Sciences & Technology	※		1		Q1 or Q2	
			Innovation in Healthcare	Faculty in Graduate School of Medical Sciences	02913		1		Q3	
			MOT as for Disruptive Innovation	Matsushima	02914		1		Q3	
	Scientific English		English Lessons for Pharmaceutical Sciences I	Ross	02101	1			Q1	
			English Lessons for Pharmaceutical Sciences II	Ross	02102	1			Q2	
	By field	Introduction	Introduction to Pharmachemistry	Yoshimura, Mishiro, Fuchigami, Fukuyoshi, Matsuo, Ogawa, Hirano, Goto,	02038		1		Q1	≥1 credit
			Introduction to Biopharmaceutical Sciences	Yoshida,Sasaki, Suzuki, Matsunaga, Kuraishi	02040		1		Q1	
			Introduction to Precision Medicine	Nakajima,Tamai, Kaneda, Shirasaka, Arakawa	02041		1		Q1	
		Advanced courses	Advanced Course of Pharmachemistry	Yoshimura, Mishiro, Fuchigami, Fukuyoshi, Matsuo, Ogawa, Hirano, Goto,	02042		1		Q4	≥1 credit
			Advanced Course of Biopharmaceutical Sciences	Sasaki, Kuraishi, Yoshida, Suzuki, Matsunaga	02061		1		Q2	
			Advanced Course of Precision Medicine	Shirasaka, Tamai, Kaneda, Kato, Masuo, Arakawa	02062		1		Q3	
		Experimental techniques	Experimental Techniques in Pharmachemistry	Uchiyama, Tang	02048		1		Q1	≥1 credit
			Experimental Techniques in Biopharmaceutical Sciences	Furukawa, Wakasugi, Sasaki	02049		1		Q2	
			Experimental Techniques in Precision Medicine Research	Masuo, Fukami, Shirasaka, Deyama,	02050		1		Q2	
		Advanced seminars	Advanced Seminar on Pharmachemistry	All faculty in the field of pharmacochemistry	02051.1		1		Year 1/2	1 credit
			Advanced Seminar on Biopharmaceutical Sciences	All faculty in the field of biopharmaceutical science	02052.1		1		Year 1/2	
			Advanced Seminar on Precision Medicine	Kato, Tamai, Kaneda, Nakajima	02053.1		1		Year 1/2	
Exercises	Basic exercises		Learning Recent Advancement in Pharmaceutical Sciences	Primary supervisor	-	6			Year 1/2	
	Practical exercises		Pharmaceutical Sciences Practice I	Faculty members in charge of the subject	-	1			Year 1	
			Pharmaceutical Sciences Practice Ⅱ	Faculty members in charge of the subject	-	1			Year 2	
	Special exercises		Pharmaceutical Research Practice I	Primary supervisor	-	1			Year 1	
			Pharmaceutical Research Practice IIA	Primary supervisor	-		1		Year 2	1 credit
			Pharmaceutical Research Practice IIB	Primary supervisor	-		1		Year 2	
Practical training	Project research		Research Training in Pharmaceutical Sciences	Primary supervisor	-	8			Year 1/2	
Free study frame work	Overseas research		Pharmaceutical Sciences Overseas Study Program I	Primary supervisor	-			1	Year 1/2	
			Pharmaceutical Sciences Overseas Study Program II	Primary supervisor	-			1	Year 1/2	
	Combination of multiple disciplines		Interdisciplinary seminars	Primary supervisor	-			1	Year 1/2	

*Please note the timetable numbers of the subjects ★ are defferent depending on the laboratories.

*The timetable numbers for exercises, practice sessions, and free study courses are different depend on the laborratories. Please register the number in your laboratory.

Concerning "Advanced Seminar", please refer to page 10

The timetable numbers will be advised separately.

※**Please refer to the attached sheet.**

Completion of the course through Qualifying Examination(QE)
Enrollment in April

The following is the standard schedule for completing the course in two years. Since only the main requirements are listed, please check other requirements and specific schedules through notices as needed.

Academic year	Month	Items
1	4	・Laboratory assignment ※Assigned to the laboratory of the primary supervisor ・Determination of supervisors and consulting teachers ・Submit a research plan (Form 1) to the primary supervisor ・Determination of research guidance plan ・Submit course registration and research plan (Form 2) to the primary supervisor ・Course registration (Register necessary courses within the course registration period)
	6	・Course registration (Register necessary courses within the course registration period)
	10	・Course registration (Register necessary courses within the course registration period)
	12	・Course registration (Register necessary courses within the course registration period)
2	4	・Submit course registration and research plan (Form 2) to the primary supervisor ・Course registration (Register necessary courses within the course registration period)
	6	・Course registration (Register necessary courses within the course registration period)
	7	・Apply for the Qualifying Examination(QE) ・Apply for the entrance examination for the Graduate School of Pharmaceutical Sciences (Doctoral Level Section of Integrated Course)
	8	・Qualifying Examination(QE) ① Written test ② Oral examination by the examination committee
	9	・Pass/fail judgment related to the Qualifying Examination(QE) ※Unsuccessful applicants can change to submit a master's thesis
	10	・Course registration (Register necessary courses within the course registration period)
	12	・Course registration (Register necessary courses within the course registration period)
	2	・Research results presentation
	3	・Degree conferment

Completion of the course through Qualifying Examination(QE)
Enrollment in October

The following is the standard schedule for completing the course in two years. Since only the main requirements are listed, please check other requirements and specific schedules through notices as needed.

Academic year	Month	Items
1	10	・Laboratory assignment ※Assigned to the laboratory of the primary supervisor ・Determination of supervisors and consulting teachers ・Submit a research plan (Form 1) to the primary supervisor ・Determination of research guidance plan ・Submit course registration and research plan (Form 2) to the primary supervisor ・Course registration (Register necessary courses within the course registration period)
	12	・Course registration (Register necessary courses within the course registration period)
2	4	・Submit course registration and research plan (Form 2) to the primary supervisor ・Course registration (Register necessary courses within the course registration period)
	6	・Course registration (Register necessary courses within the course registration period)
	10	・Course registration (Register necessary courses within the course registration period)
	12	・Course registration (Register necessary courses within the course registration period) ・Apply for the Qualifying Examination(QE)
	1	・Qualifying Examination(QE) ① Written test ② Oral examination by the examination committee
	2	・Pass/fail judgment related to the Qualifying Examination(QE) ※Unsuccessful applicants can change to submit a master's thesis
	4	・Submit course registration and research plan (Form 2) to the primary supervisor ・Course registration (Register necessary courses within the course registration period)
	6	・Course registration (Register necessary courses within the course registration period)
	7	・Apply for the entrance examination for the Division of Pharmaceutical Sciences (Doctoral Level Section of Integrated Course)
	8	・The entrance examination for the Division of Pharmaceutical Sciences (Doctoral Level Section of Integrated Course) ・Research results presentation
	9	・Degree conferment

Completion of the course based on a master's thesis or outcomes of research concerning a specific subject, and the final examination
Enrollment in April
The following is the standard schedule for completing the course in two years. Since only the main requirements are listed, please check other requirements and specific schedules through notices as needed.

Academic year	Month	Items
1	4	・Laboratory assignment ※Assigned to the laboratory of the primary supervisor ・Determination of supervisors and consulting teachers ・Submit a research plan (Form 1) to the primary supervisor ・Determination of research guidance plan ・Submit course registration and research plan (Form 2) to the primary supervisor ・Course registration (Register necessary courses within the course registration period)
	6	・Course registration (Register necessary courses within the course registration period)
	10	・Course registration (Register necessary courses within the course registration period)
	12	・Course registration (Register necessary courses within the course registration period)
2	4	・Submit course registration and research plan (Form 2) to the primary supervisor ・Course registration (Register necessary courses within the course registration period)
	6	・Course registration (Register necessary courses within the course registration period)
	10	・Course registration (Register necessary courses within the course registration period)
	12	・Course registration (Register necessary courses within the course registration period)
	1	・Submission of an application for degree and, a master's thesis or outcomes of research concerning a specific subject
	2	・Presentation of the results of research on a master's thesis or a specific subject
	3	・Assessment of a master's thesis or outcomes of research concerning a specific subject ・Degree conferment

Completion of the course based on a master's thesis or outcomes of research concerning a specific subject, and the final examination
Enrollment in October

The following is the standard schedule for completing the course in two years. Since only the main requirements are listed, please check other requirements and specific schedules through notices as needed.

Academic year	Month	Items
1	10	・Laboratory assignment ※Assigned to the laboratory of the primary supervisor ・Determination of supervisors and consulting teachers ・Submit a research plan (Form 1) to the primary supervisor ・Determination of research guidance plan ・Submit course registration and research plan (Form 2) to the primary supervisor ・Course registration (Register necessary courses within the course registration period)
	12	・Course registration (Register necessary courses within the course registration period)
2	4	・Submit course registration and research plan (Form 2) to the primary supervisor ・Course registration (Register necessary courses within the course registration period)
	6	・Course registration (Register necessary courses within the course registration period)
	10	・Course registration (Register necessary courses within the course registration period)
	12	・Course registration (Register necessary courses within the course registration period)
	4	・Submit course registration and research plan (Form 2) to the primary supervisor ・Course registration (Register necessary courses within the course registration period)
	6	・Course registration (Register necessary courses within the course registration period)
	7	・Apply for the entrance examination for the Division of Pharmaceutical Sciences (Doctoral Level Section of Integrated Course) ・Submission of an application for degree and, a master's thesis or outcomes of research concerning a specific subject
	8	・The entrance examination for the Divison of Pharmaceutical Sciences (Doctoral Level Section of Integrated Course) ・Presentation of the results of research on a master's thesis or a specific subject
	9	・Assessment of a master's thesis or outcomes of research concerning a specific subject ・Degree conferment

Requirements for Completion

Completion requirements

Completion requires that all of the following requirements are met.

(1) Students must be enrolled for at least 2 years. For those with outstanding research accomplishments, a period of enrollment of at least one year may be sufficient.
(2) Students must acquire at least 31 credits.
(3) After receiving the necessary research guidance, students must pass the separately arranged Qualifying Examination (QE) for the doctorate dissertation, an assessment of a master's thesis and an oral presentation of the master's thesis (final examination) or outcomes of research concerning a specific subject and an oral presentation of it (final examination).
(4) As part of the university's push to develop English language skills, all students who are enrolled in the Master's Level Section of Integrated Course in the Division of Pharmaceutical Sciences will, in principle, take an external certification test in English; meet the criteria of having a score of ≥550 points in the Test of English for International Communication (TOEIC), ≥57 points in the Internet-based Test of English as a Foreign Language (TOEFL-iBT), ≥487 points in the Paper-based Test of English as a Foreign Language (TOEFL-PBT), or ≥4.5 points in the International English Language Testing System (IELTS); and report this at least 6 months prior to completion.

Master's course students may only receive financial support for part of the examination fee once while enrolled (approximately 3,000 yen, or 5,000 yen if the cost per examination exceeds 10,000 yen). This support may change depending on the fiscal year; thus, there is a need to check the notifications in the Acanthus portal, etc.

Timing of examination	While enrolled in the master's course
Reporting methods	Students must submit the original and a copy of the examination scores to the Pharmacy Student Affairs Section at least 6 months prior to completion of the course. (Submission is required even if the score does not meet the requirements for completion.)
Applicable examinations	Test of English for International Communication Institutional Program (TOEIC IP), TOEFL-iBT, TOEFL-PBT, IELTS
Criteria for exemption from examination	1. Those with a TOEIC score of 760 points, TOEFL-iBT score of 80 points, TOEFL-ITP score of 550 points, or IELTS score of 6.0 points or higher (however, this is limited to tests taken after entering the university) 2. Employed workers (those who are employed and working in the month of entering the university, regardless of whether or not they apply for exceptional provisions in Criteria 14) 3. Native English speakers Those who were born and raised in a country where English is generally the official language and who have acquired English as their first language. List of countries where English is the official language (below) Ireland, the United States of America, Antigua and Barbuda, United Kingdom, Israel, India, Uganda, Eritrea, Australia, Guyana, Ghana, Canada, Cameroon, Gambia, Kiribati, Cook Islands, Grenada, Kenya, Samoa, Zambia, Sierra Leone, Jamaica, Singapore, Zimbabwe, Sudan, Swaziland, Seychelle, Saint Christopher and Nevis, St. Vincent-Grenadine and St. Lucia, Somaliland, Solomon Islands, Tanzania, Tuvalu, Dominican Republic, Trinidad and Tobago, Tonga, Nigeria, Nauru, Namibia, Niue, New Zealand, Pakistan, Vanuatu, Bahamas, Papua New Guinea, Palau, Barbados, Fiji, Philippines, Belize, Botswana, Marshall Islands, Malawi, Malta, Micronesia, Republic of South Africa, South Sudan, Mauritius, Liberia, Rwanda, Lesotho

Registration methods

[1] Compulsory courses	GS Basic Courses for Postgraduates: Research Ethics (1 credit) Laboratory Rotation I (0.5 credit) Laboratory Rotation II (0.5 credit) Scientific English: English Lessons for Pharmaceutical Sciences I (1 credit) English Lessons for Pharmaceutical Sciences II (1 credit) Basic exercises: Learning Recent Advancement in Pharmaceutical Sciences (6 credits) Practical exercises: Pharmaceutical Sciences Practice I (1 credit) Pharmaceutical Sciences Practice II (1 credit) Special exercises: Pharmaceutical Research Practice I (1 credit) Project research: Research Training in Pharmaceutical Sciences (8 credits)	21 credits
[2] Compulsory elective courses	GS Basic Courses for Postgraduates: ≥2 credits Introduction by field: ≥1 credit Advanced courses by field: ≥1 credit Experimental techniques by field: ≥1 credit Advanced seminars by field: 1 credit Special exercises: 1 credit Pharmaceutical Research Practice IIA or Pharmaceutical Research Practice IIB	≥10 credits
[3] Elective courses	Overseas research, Combination of multiple disciplines	
Total		≥31 credits

List of recommended compulsory elective courses per field

Field	Laboratory	Recommended courses (credit)
Pharmachemistry	Clinical and Analytical Sciences, Synthetic Organic Chemistry, Synthetic and Medicinal Element Chemistry, Natural Products and Medicinal Chemistry, Bioorganic Chemistry, Uchiyama Research Group, Collaborative Research Group with the Institute of Nature and Environmental Technology	Introduction to Pharmachemistry (1) Advanced Course of Pharmachemistry (1) Experimental Techniques in Pharmachemistry (1) Advanced Seminar on Pharmachemistry (1)
Biopharmaceutical Sciences	Host Defense and Responses, Human Molecular Genetics, Vaccinology and Applied Immunology, Hygienic Chemistry, Pharmacognosy	Introduction to Biopharmaceutical Sciences (1) Advanced Course of Biopharmaceutical Sciences (1) Experimental Techniques in Biopharmaceutical Sciences (1) Advanced Seminar on Biopharmaceutical Sciences (1)
Precision Medicine	Membrane Transport and Pharmacokinetics, Molecular Pharmacotherapeutics, Drug Metabolism and Toxicology, Molecular Pharmacology, Clinical Pharmacy and Healthcare Sciences, Physical Chemistry	Introduction to Precision Medicine (1) Advanced Course of Precision Medicine (1) Experimental Techniques in Precision Medicine Research (1) Advanced Seminar on Precision Medicine (1)

Research Guidance

1. Research guidance system

A guidance system consisting of multiple teaching faculty members has been adopted to improve the quality of research guidance.

1) Research guidance group

(1) For each student, a research guidance group consisting of a primary supervisor and a supervisor will be formed.

(2) The formation of the research guidance group will be decided at committee meetings for the relevant major/specialization.

(3) Primary supervisors will be responsible for providing guidance on the preparation of course plans, development of research plans, conduct of research, preparation of interim research reports, preparation of academic theses and publications, applications for degrees, and providing other instructions.

(4) Supervisors will assist the primary supervisor.

2. Research guidance and degree application procedure

The schedule for research guidance and the degree application procedure to allow students to meet the requirements within a specified course term is as follows.

(1) After receiving advice from the research guidance group immediately after entering the university, students will prepare “[Form 1] Research Plan” and “[Form 2] Course Registration and Research Plan” and submit these to the primary supervisor.
[Form 1] describes the entire contents of the research plan during enrollment in the program, and [Form 2] describes the course registration and research plan for each academic year.
These forms can be obtained from the following Division of Pharmaceutical Sciences website.
(https://www.p.kanazawa-u.ac.jp/user/masters_students.html#gsc.tab=0)

(2) In accordance with [Form 2], students must complete registrations for the academic year via the Acanthus portal by the designated due date. The due date for course registration will be announced via the Acanthus Portal at the beginning of each academic term.

(3) Students will conduct research according to the research plan. If there are any significant changes in the research plan, these will be reported to the research guidance group and [Form 1] and [Form 2] modified accordingly after consulting with the group.

(4) Students will summarize the research results with the advice of the research guidance group.

(5) The procedures for applying for a degree will be performed in accordance with the review requirements for the degree.

(6) Students must undergo a Qualifying Examination (QE) for the doctoral thesis, a review of the master’s thesis and give an oral presentation or outcomes of research concerning a specific subject and give an oral presentation.

(7) The final judgment will be made at committee meetings for the respective majors/specializations based on the status of acquisition of credits and the results of various reviews. If judged to have passed, students will be deemed to have completed the pre-doctoral program and receive a master’s degree (in Pharmaceutical Sciences).

Guidelines for Research Guidance

January 4, 2012
Approved by the Establishment Preparation Committee of Doctoral Level Section of an Integrated Course, Division of Pharmaceutical Sciences and Division of Pharmacy for the Doctoral Course

Approved by the Faculty Committee of the Pharmacy Field on July 4, 2012
To be effective as of April 1, 2012

The guidelines for guidance on the preparation, etc. of master's theses in the major/specialization (hereinafter, "research guidance") will be as follows.

1. The primary supervisor will determine the plans for research guidance until the final academic year of the student through discussion with the student based on the research plan (Form 1) provided by the student and show this to the student promptly after entering the university.

2. The primary supervisor will receive reports on the progress of the research from the students as appropriate and, upon discussion with the students, review and revise the research guidance plan prepared in 1. as necessary.

3. At the beginning of each academic year, students will prepare an academic curriculum and research plan (Form 2) in accordance with the research plan (Form 1) and submit these to the primary supervisor.

4. The primary supervisor will retain research plans for students (Forms 1 and 2) for five (5) years after the aforementioned students complete the curriculum.

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Attendance in Each Course Lecture

GS Basic Courses for Postgraduates

Research Ethics (compulsory)

- Attend lectures (4 times) led by the Institute of Liberal Arts and Science faculty (including first lecture introductions from the Pharmaceutical Sciences faculty)
- Attend career path lectures (2 times) led by the Pharmaceutical Sciences faculty
- Refer to the timetable for lecture dates
- Take the following e-learning modules in APRIN (3 modules taken once for a total of 2 times)
- Report to the primary supervisor as soon as all the designated training modules are completed
- Individual APRIN usernames and passwords will be provided separately

APRIN “designated credited modules”

Responsible conduct of research (RCR): Basic edition (RCR Life Sciences)	- Research Misconduct - Data Handling - Authorship - What is plagiarism?
Human subject research (HSR): basic edition	- This History and Principles of Bioethics, and the Development of Its Rules - Handling Personal Information in Research

APRIN e-learning program

https://edu.aprin.or.jp/

[1] Enter your username and password to login

[2] Take the designated credited modules

[3] Report completion of all training modules to the primary supervisor

(Compulsory)
Laboratory Rotation I・II

- During Q1 and Q2, students conduct research for a certain period of time in a laboratory that conducts research that differs from their own research field (laboratory rotation), with the aim of broadening their perspectives and acquiring new ideas and research methods.
- Students rotate between two laboratories in Q1 and Q2 (standard duration is 23 hours in each laboratory).
- For Laboratory Rotation I, students select a faculty member from a laboratory within other division that conducts research different from their own field of specialization.
- For Laboratory Rotation II, students select a faculty member from a different laboratory within the department to which they belong.
- Details concerning the course registration period and lottery method will be notified separately.

(Compulsory electives)
Data Science in Society 5.0
Advanced Science and Technology in the Next Generation
Smart Science and Technology for Innovation
Innovation Methodology
Mathematical, Date Science and AI Basic

- Acquire at least 1 credit from the aforementioned 5 courses

(Compulsory electives)
Human and social challenges
Management of Technology
Innovation in Healthcare
MOT as for Disruptive Innovation

- Acquire at least 1 credit from the aforementioned 4 courses

Scientific English

English Lessons for Pharmaceutical Sciences I (compulsory)

- Participants will be divided into two groups. Information on groups will be provided separately
- In addition, follow the instructions of the faculty in charge.

English Lessons for Pharmaceutical Sciences II (compulsory)

- Participants will be divided into two groups. Information on groups will be provided separately
- In addition, follow the instructions of the faculty in charge.

By field

Acquire at least 1 credit of a course in the field of the laboratory to which you are affiliated

Introduction (Compulsory electives)

- Acquire at least 1 credit from 3 courses

Advanced courses (Compulsory electives)

- Acquire at least 1 credit from 3 courses

Experimental techniques (Compulsory electives)

- Acquire at least 1 credit from 3 courses

Advanced seminars (Compulsory electives)

- Courses offered the full year for those in their first and second years. Take 1 credit
- Attend a seminar specified in advance, in the field of specialization to which you are affiliated, and include a summary, etc. of the contents of this in a report [Form 3] (Page 16), and submit this to the primary supervisor or designated instructor together with the notice/invitation, etc. for the seminar
- For each seminar, record the lecture time + 30 minutes as attendance time and add up the total to obtain credit certification for at least 720 minutes.

[Note] Seminars overlapping with multidisciplinary seminars are not allowed.

Basic exercises

Learning Recent Advancement in Pharmaceutical Sciences (1st/2nd year) (compulsory)

- Seminars, etc. at each laboratory

Practical exercises

Pharmaceutical Sciences Practice Ⅰ (1st year), Pharmaceutical Sciences Practice Ⅱ (2nd year) (compulsory)

Perform the following assistant tasks for student training and prepare and submit reports.

- Planning and preparation
- Operations
- Review and evaluation

A separate notice will be given to each trainee.

Special exercises

Pharmaceutical Research Practice I (1st year) (compulsory)

Perform the following tasks.

1) Interim presentation of master's thesis research

2) Attend a master's thesis conference, a research result conference, or a doctoral dissertation conference and prepare and submit a report

- Attendance at the master's thesis conference, research results conference, or doctoral thesis conference requires 4 classes (6 hours).
- For details, check with the primary supervisor

Pharmaceutical Research Practice IIA or Pharmaceutical Research Practice IIB (2nd year) (compulsory electives)

- As the method for compiling the research, any one of the following: "Qualifying Examination (QE)," "Master's thesis," or "Outcomes of research concerning a specific subject " may be selected

In principle, students studying under the Division of Pharmaceutical Sciences (Doctoral level Section of Integrated Course) in the university complete the program through the "Qualifying Examination (QE)"

- In the 2nd year of the Master's course program, take either Pharmaceutical Research Practice IIA or Pharmaceutical Research Practice IIB. Check with the primary supervisor on which course to take.

Students wishing to earn a master's degree by outcomes of research concerning a specific subject must consult with the primary supervisor.

- **Common items under Pharmaceutical Research Practice IIA or Pharmaceutical Research Practice IIB**
  - Preparation of summaries
  - Preparation of abstracts (English: 500 words)
    (However, a waiver will be granted if the research results summary, master's thesis, or the publication of the research results is prepared in English.)
  - Preparation of oral presentation materials
  - Oral presentation

Pharmaceutical Research Practice IIA (2nd year)

- For those who can proceed under the Division of Pharmaceutical Sciences (Doctoral level Section of Integrated Course), completion of the pre-doctoral program through the Qualifying Examination (QE) in lieu of a Master's thesis will be allowed
- **Those who have passed the Qualifying Examination (QE)**will prepare an outline of the research results and give an oral presentation at the research results presentation conference
- **Those who do not select or do not pass the Qualifying Examination (QE)** will prepare a master's thesis and give an oral presentation at the master's thesis presentation conference
- Those who will not proceed under the Division of Pharmaceutical Sciences (Doctoral level Section of Integrated Course) will prepare a master's thesis and give an oral presentation at the master's thesis presentation conference
- The author of the master's thesis will undergo a consultation with a sub-reviewer on the content of the thesis,

summarize this in a report of the consultation with the sub-reviewer [Form 4] , and confirm this with the sub-reviewer, after which a seal is obtained and submitted to the primary supervisor.

Pharmaceutical Research Practice IIB (2nd year)

- For those who can proceed under the Division of Pharmaceutical Sciences (Doctoral level Section of Integrated Course), prepare for the Qualifying Examination (QE), prepare a publication of the research results, and give an oral presentation at a research results presentation conference
- **Those who do not select or do not pass the Qualifying Examination (QE)** will prepare a master's thesis and give an oral presentation at the master's thesis presentation conference
- Those who will not proceed under the Division of Pharmaceutical Sciences (Doctoral level Section of Integrated Course) will prepare a master's thesis and give an oral presentation at the master's thesis presentation conference
- The author of the master's thesis will undergo a consultation with a sub-reviewer on the content of the thesis, summarize this in a report of the consultation with the sub-reviewer [Form 4] , and confirm this with the sub-reviewer, after which a seal is obtained and submitted to the primary supervisor.

Project research

Research Training in Pharmaceutical Sciences (1st/2nd year) (compulsory)

- Research activities, etc. at each laboratory

Free study framework: overseas research

Pharmaceutical Sciences Overseas Study Program I, Pharmaceutical Sciences Overseas Study Program II (1st/2nd year) (electives)

Credit certification will be given for training in pharmaceutical sciences at overseas educational/research institutions, companies, etc.

- The period of stay at the location of the training must be at least 3 days and must be approved by the primary supervisor and accepted by the trainer at the overseas institution
- Submit the training objectives, etc. before the training (free format)
- After returning to Japan, submit a training report (Report: Form 5) with a certificate of acceptance (free format) attached
- The approval or rejection of the training will be judged by the graduate school education committee, and the primary supervisor will certify the credits

Free study framework: combination of multiple disciplines

Interdisciplinary seminars (1st/2nd year) (electives)

Credit certification is based on the following 1 or 2. Credit certification based on the sum of 1 and 2 is not permitted.

1. Attend seminars, etc. other than field-specific advanced seminars, report these in a report, and obtain approval from the primary supervisor

- Check with the primary supervisor on allowed lectures and seminars
- Prepare a summary, etc. of the contents of the seminars in a report [Form 6] and submit this to the primary supervisor together with the notice/invitation, etc. for the seminar
- For each seminar, record the lecture time + 30 minutes as attendance time and add up the total to obtain credit certification for at least 720 minutes.

[Note] Seminars overlapping with advanced seminars by field are not allowed.

2. In principle, only internship practical training for 5 days or more will be given credit

- The primary supervisor must approve the practical training at a pharmaceutical company in Japan, etc. for which the student applies voluntarily or that is recommended by the supervisor
- To participate in the internship, submit a curriculum vitae [Form 7-1] , internship notification and pledge [Form 7-2] and insurance certificate (copy) to Pharmacy Student Affairs Section
- Prior to the practical training, prepare a pre-training report (optional format) and, after the practical training, prepare an internship report [Form 7-3] and submit it to the primary supervisor

[Form 1]

Academic Year 20

Research Plan

Integrated Course of Master Level

Graduate School of Medical Sciences, Division of _____	Student Number	

Name	_____ Signature	Name of Primary Supervisor	_____ Signature

Research Theme	

Purpose	
Description	
Research Plan	1st year 2nd year 3rd year 4th year Date: / /

[Form 2]

Year 20__ Course Registration and Research Plan

Integrated Course of Master Level

Graduate School of Medical Sciences, Division of _____	Student Number	

Name	_____ Signature	Name of Primary Supervisor	_____ Signature

Research Theme	

Description	

Courses	Name of the course lecture	Credit	Faculty in charge	Name of the course lecture	Credit	Faculty in charge

Notes

1. Course registration must be completed on the Acanthus Portal.
2. After completing course registration, be sure to check the list of course registration authorizations on the Acanthus Portal.

Date: / /

【Form3】

No.

Advanced Seminar

Date: / /

Name			
Student Number		Grade	
Laboratory			

Title of Seminar	
Title of Lecture	
Lecturer	
Date	/ / ( ) : ～ : (min.)

Summary

※Submit this report with a copy of seminar's announcement/flyer.

Primary supervisor

Signature

[Form 4]

Report on Consultation with Sub-reviewer
Common for Pharmaceutical Research Practice IIA or
Pharmaceutical Research Practice IIB

Student identification no. Affiliated laboratory

Name

Sub-reviewer Affiliation Name Seal

Consultation Location Date: / / / : ～ :

Details of consultation

Report on the Content of Pharmaceutical Sciences Overseas Study Program

1. Affiliation, name, etc.

Name			
Student identification no.		Academic year	
Laboratory name			

2. Supervisor

Primary supervisor	Seal
Comments	

3. Training organization

Country	
Training organization and department	
Supervisor at the host organization	
Training period	/ , ～ / ,

4. Content of the training (specify the time (hours) and description of each activity per day)

(Note) If there is not enough space in the box, continue entries on the back of the page.

5. Attach the acceptance certificate/attached documents (free format)

[Form 6]

No.

Interdisciplinary Seminar

Date of submission: / ,

Name			
Student identification no.		Academic year	
Laboratory name			

Title of the seminar	
Title of the lecture	
Lecturer	
Date and time of the lecture	/ , ( ) : to : (minutes)

Summary report, such as the content

* Submit together with the notice/invitation, etc. for the seminar

Section for confirmation by the primary supervisor

Japanese Only

【様式７－１】

金 沢 大 学

履　歴　書

ﾌﾘｶﾞﾅ

氏　　名：　　印

生年月日：　　年　　月　　日

写真糊付
縦4cm×横3cm

所　　属：　金沢大学大学院医薬保健学総合研究科（博士前期課程）

専攻・学年：　　創薬科学専攻　　年

大学での連絡先：〒

TEL　　携帯TEL

E-mail

現　住　所：〒

TEL

帰　省　先：〒

TEL

略　歴：　　年　月　　立　　高等学校　　科卒業

年　月

年　月

年　月

年　月

年　月

研究テーマ：

概　　要：

備　　考：

【様式７－２】

Japanese Only

インターンシップ届出書兼誓約書

年　　月　　日

学生部長　殿

学域・研究科		学類・専攻	
学年		学籍番号	
氏名（**※署名**）	㊞	携帯電話番号	

このたび、私は、下記のとおりインターンシップに参加しますので、届け出ます。また、インターンシップに参加するにあたり、下記事項を遵守することを誓います。

種　別	１．「正課中」　科目名（　　） ２．「学校行事」 **※単位認定希望の場合は、１に〇を付けて科目名を記載してください。** **単位認定を希望しない場合は、２に〇を付けてください。**
実施期間	年　月　日　～　年　月　日（実働　日）
受入機関	企業等名： 部署名： 住所：〒 連絡先：
加入保険 **※加入している保険の番号に〇を付けてください。**	１．学生教育研究災害傷害保険　２．学研災付帯賠償責任保険 ３．[大学生協]生命共済　４．[大学生協]学生賠償責任保険 ５．その他（　　） **※インターンシップに参加する学生は、必ず「傷害保険」（１・３の保険等）及び「損害賠償責任保険」（２・４の保険等）の両方に加入する必要があります。** **※１・２の保険の加入状況は、保健管理センターまたは就職支援室で確認できます。** **※１～２の保険に加入した場合は、「払込票兼受領証」の写しを添付してください。** **（ただし、就職支援室で加入が確認できた場合は、添付不要です。）** **※３～５の保険に加入している場合は、加入を証明する書類（加入証等）の写しを添付してください。** **※５の保険に加入している場合は、必ずインターンシップが補償の対象となっていることを確認してください。**
事前研修	□就職支援室主催（DVD 含む）　□学類主催　□その他（　　） **※未参加の場合は、就職支援室で DVD を借り、必ず受講してください。**
申込方法	□直接企業等へ　□就職ナビサイト（リクナビ・マイナビ等）から □大学経由　□その他（　　）

本書類を学生部長へ提出し受理された場合、そのインターンシップは学生教育研究災害傷害保険及び学研災付帯賠償責任保険の対象として承認されたものとします。

≪遵守事項≫

１．実習期間中は、受入機関の就業規則およびこれに基づく諸規則の定めに従います。
２．受入機関の諸規則、規範を守り、実習期間中は管理・監督責任者の指示に従います。
３．実習に際しては、次の事項を遵守します。
　（１）受入機関の名誉を毀損するような行動はいたしません。
　（２）受入機関の営業を妨害するような行動はいたしません。
　（３）実習中に知り得た機密事項については、SNS や掲示板等への書き込み等も含め、一切外部に漏洩しません。
４．故意または過失により受入機関に損害を与えた場合は、直ちに弁償します。
５．実習中に自己の不注意により万一災害を受けた場合は、受入機関に迷惑をかけることなく、自己の責任において処理します。

以上、誓約いたします。

【様式７－３】

Japanese Only

提出日：　　年　　月　　日

インターンシップ報告書

金沢大学大学院　医薬保健学総合研究科

所属・学年	学籍番号	学生氏名
専攻・　年		

派遣先企業名	
派遣期間	年　　月　　日～　　年　　月　　日（実働　　日間）
派遣先所在地	

実習内容

インターンシップ派遣の感想

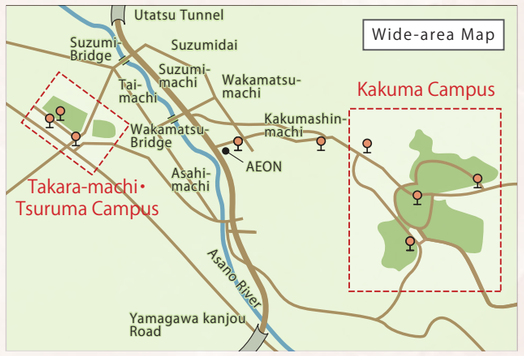
下級生に伝えたいこと

※氏名の欄を隠し，薬学学務係窓口で閲覧できるようにしますので，ご了承ください。

Kanazawa University

Kakuma Campus Map

KANAZAWA UNIVERSITY



To Nanto (Toyama Pref.)
D Parking Area
Kanazawa University Bus Stop
C Parking Area
Bicycle-Parking
P Parking Area
North Area
Central Area
South Area
Japanese Archery Range
Rifle Range
Riding Field
Football Field (Kanazawa University SOLTILO FIELD B, C-Pitch)
Stables
Botanical Garden
Farm
To Tawara-machi and Mt. Iozen
Kakuma-Tawara Line (Municipal Road)
Southern Tennis Court
Athletic Field (Kanazawa University SOLTILO FIELD A-Pitch)
East Clubhouse
Bicycle-Parking
E Parking Area
Acanthus Interface (Connecting Bridge)
Kanazawa University Central Bus Stop
"Kanazawa University" Inscription Stone
G Parking Area
Kakuma River
South Acanthus Interface (Connecting Bridge)
Kanazawa University Shizenken-mae Bus Stop
H Parking Area
Parking Area
Multipurpose Field
Kakuma-Tagami Line (Municipal Road)
To Yamagawa kanjou
North Tennis Court
Multipurpose Court
A Parking Area
B Parking Area
Softball Field
Rugby Field
North Bicycle-Parking
K Parking Area
L Parking Area
South Bicycle-Parking
Medicine Storage
Medicinal Plant Garden
M Parking Area
Kakumamachi Line (Municipal Road)
Kanazawa-Inami Line (Prefectural Road)
Kakuma-no-sato House
Kakuma Bridge
Kanazawa University Kakuma-guchi Bus Stop
Convenience Store
To Central Kanazawa

North Area

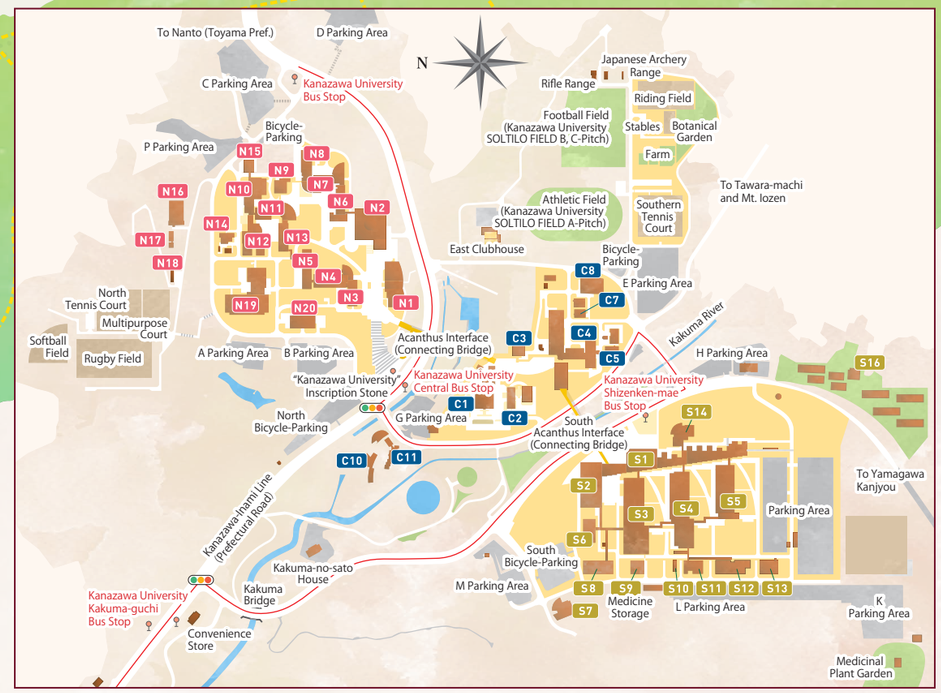
- N1 University Hall
- N2 Central Library, University Museum
- N3 General Education Hall 1
- N4 General Education Lecture Hall
- N5 General Education Hall 2
- N6 Human and Social Science Hall 1
- N7 Human and Social Science Lecture Hall 1
- N8 Human and Social Science Hall 2
- N9 North Campus Store and Restaurant
- N10 Human and Social Science Hall 3
- N11 Human and Social Science Lecture Hall 2
- N12 Human and Social Science Hall 4
- N13 Human and Social Science Hall 5
- N14 Machine Laboratory and Wood Workshop
- N15 Center for Educational Practice and Support
- N16 Swimming Pool
- N17 Center for Archaeological Research
- N18 North Clubhouse
- N19 Gymnasium
- N20 Energy Station

Central Area

- C1 Administration Office, Health Service Center, Frontier Science and Social Co-creation Initiative
- C2 Emerging Media Initiative
- C3 Central Campus Store and Restaurant
- C4 Natural Science and Technology Hall 5
- C5 Incubation Laboratories
- C7 Low Temperature Laboratory
- C8 Research Center for Experimental Modeling of Human Disease,Radioisotope Laboratory for Natural Science and Technology
- C10 Guest House
- C11 International House

South Area

- S1 Natural Science and Technology Main Hall
- S2 Natural Science and Technology Library, South Campus Store and Restaurant
- S3 Natural Science and Technology Hall 1, Nanomaterials Research Institute
- S4 Natural Science and Technology Hall 2
- S5 Natural Science and Technology Hall 3
- S6 Cancer Research Institute
- S7 Environment Preservation Center
- S8 Nano Life Science Institute
- S9 Venture Business Laboratory, Hard Ware Laboratory 1
- S10 Hard Ware Laboratory 2
- S11 Institute of Natural and Environmental Technology, Hard Ware Laboratory 3
- S12 Advanced Manufacturing Technology Institute, Hard Ware Laboratory 4
- S13 Technical Support Center
- S14 Natural Science Lecture Hall
- S16 Student Dormitory " SAKIGAKE","HOKUMEI"



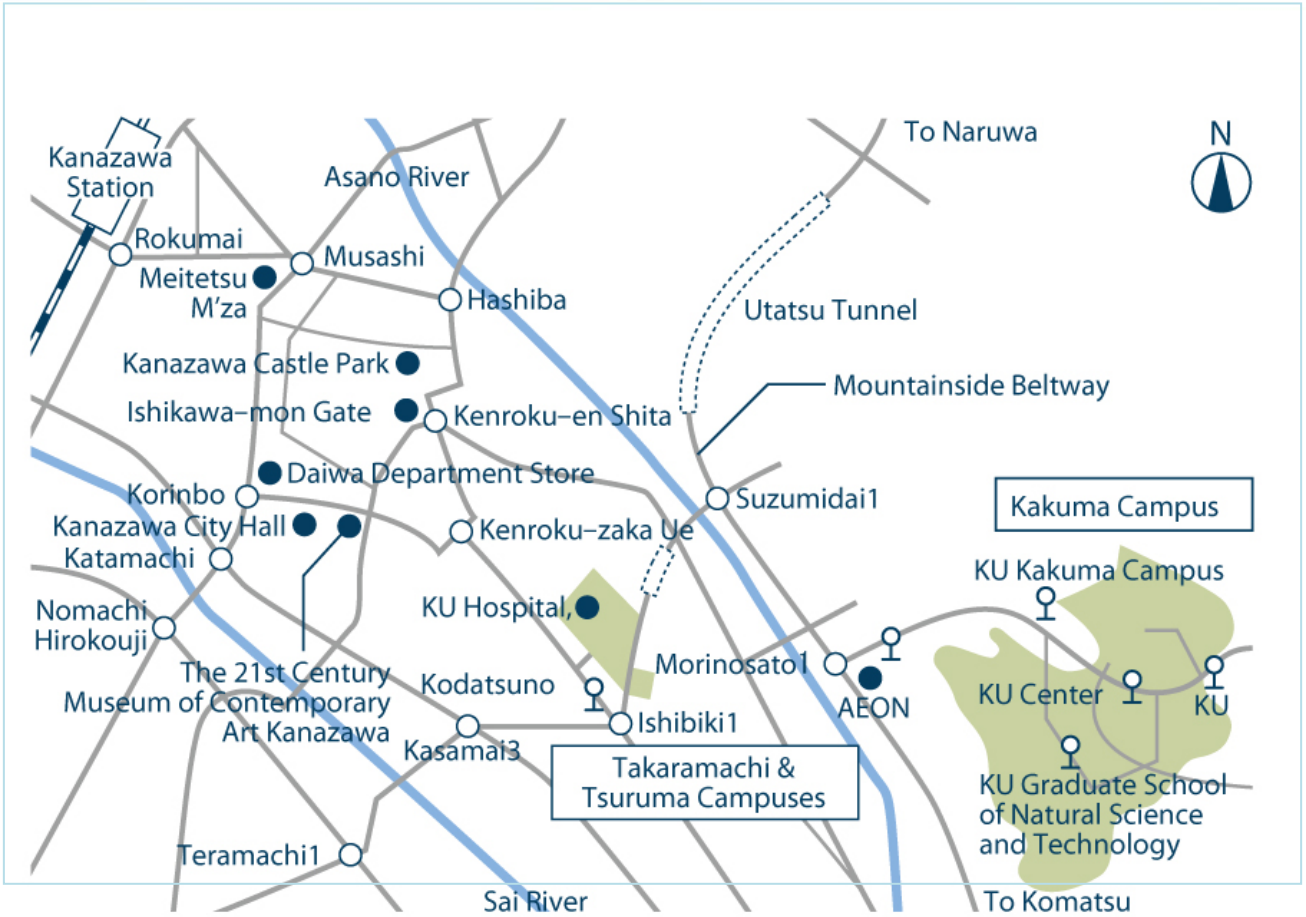
Location of Ishikawa Pref. and Kanazawa

Location of Ishikawa Pref. and Kanazawa

KANAZAWA UNIVERSITY

Campus Locations

Location of Ishikawa Pref. and Kanazawa



By Airplane:
Approx. one hour from Haneda (Tokyo) to Komatsu Airport

JR Train:
Approx. 2 hours & 30 minutes from Tokyo Station to Kanazawa Station (via Hokuriku-shinkansen)
Approx. 2 hours & 30 minutes from Osaka Station to Kanazawa Station
Approx. 3 hours from Nagoya Station to Kanazawa Station

From Kanazawa Station to Campuses (by Hokuriku Railroad Bus（北陸鉄道バス）)

>Kakuma Campus
To "Kanazawa Daigaku Shizenken Mae (in front of Natural Science& Technology Hall, 金沢大学自然研前)," "Kanazawa Daigaku Chuo (Kanazawa University Central,金沢大学中央)" or "Kanazawa Daigaku(Kakuma) (Kanazawa University(Kakuma), 金沢大学（角間）)" bus stops (Approx. 34-37min)
Catch a bus #91, 93, 94,or 97(Route name is Kanazawa Daigaku(Kakuma) （金沢大学（角間）) from Bus Terminal#6, Kanazawa Station Kenrokuen Gate (East Gate).

>Takaramachi -Tsuruma Campus
To Kodatsuno（小立野） bus stop (Approx. 20 min) Catch a bus from
Kanazawa Station Kenrokuen Gate (East Gate)
・Bus Terminal #7・ex.)Bus#11 (Route name is Tobu Shako/Kanazawa Gakuin Daigaku/Kanazawa University Hospital（東部車庫・金沢学院大学・金沢大学附属病院）), Bus#12 (Route name is Hokuriku Daigaku/Yuwaku Onsen（北陸大学・湯涌温泉）)
・Bus Terminal #6・ex.)Bus#13 (Route name is Yuyagahara/Iozen（湯谷原・医王山）), Bus#14 (Route name is Tagami Jutaku by way of Kinsyo Koukou（田上住宅（金商高校経由））)
Kanazawa Station Kanazawa Port Gate (West Gate)
・Bus Terminal #5・ex.)Bus#10 (Route name is Tobu Shako/Kanazawa Gakuin Daigaku（東部車庫・金沢学院大学）)

April 2023

Pharmacy Student Affairs Section,
Kanazawa University

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