

**Graduate School of Medicine and
Pharmaceutical Sciences**

**Master's Program in the Department of Pharmaceutical
Basic Sciences**

**Admission Guidelines
(Second Recruitment)**

For Admission in April 2021

General Admission

Special Admission for Working Students

Special Admission for International Students

November 2020

University of Toyama

Due to the spread of the novel coronavirus infection, the contents of these guidelines for recruitment of students may be changed.

Please be sure to obtain the latest information from the following website.

<https://www.u-toyama.ac.jp/>

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Admission Policy

This program, based on its aim of nurturing human resources as is shown in the policy of certifying completion of the program and granting degrees (diploma policy), accepts such applicants who seek to be creative researchers and technicians with comprehensive judgment, and willingness to learn the basics of research on the science of developing new drugs and life science.

General Admission

1. Capacity

Department	Research field	Laboratory	Number of Students Accepted
Pharmaceutical Basic Sciences	Drug Design and Medicinal Chemistry	Chemical Biology, Synthetic and Medicinal Chemistry, Synthetic and Biomolecular Organic Chemistry, Biointerface Chemistry, Structural Biology, Natural Products & Drug Discovery	A few
	Pharmacology and Biopharmaceutics	Biopharmaceutics, Applied Pharmacology, Pharmaceutical Physiology, Neuromedical Science, Pharmaceutical Technology, Complex Biosystem Research	
	Biochemistry and Molecular Biology	Biorecognition Chemistry, Cancer Cell Biology, Molecular Neurobiology, Gene Regulation, Molecular Cell Biology, Host Defences, Molecular Genetics	
	Natural Medicine	Medicinal Bioresources, Pharmacognosy, Kampo Diagnostics	
	Clinical Medicine	Clinical Pharmacology, Clinical Pharmacokinetics, Pharmaceutical Therapy and Neuropharmacology, Medical Pharmacy, Clinical Pharmaceutics	

Note: 1 Applicants should consult with the professor (associate professor) of the laboratory for their desired area of study prior to submitting their application.

2. Eligibility and Application Requirements

Persons who correspond to any of the following (1)~(11) and (12) are eligible to apply:

- (1) Persons who have graduated from a university or students scheduled to graduate in March 2021
- (2) Persons with a bachelor by the National Institution for Academic Degrees and Quality Enhancement of Higher Education under Article 104, Paragraph 7 of School Education Act, or who are scheduled to fulfill said requirement by March 2021
- (3) Persons who have completed 16 years of formal education abroad, or who are scheduled to fulfill said requirement by March 2021
- (4) Persons who have completed 16 years of formal education provided by an educational institution in a foreign country, including periods of correspondence or distance study while residing in Japan, or persons scheduled to fulfill said requirement by March 2021
- (5) Persons who have completed the course of an educational institution located in Japan that offers courses for a foreign university as part of the school education system of that country (limited to those who have completed a 16-year course of school education in that

- country), and designated as such by the Minister of Education, Culture, Sports, Science and Technology of Japan, or persons scheduled to fulfill said requirement by March 2021
- (6) Persons who have completed an educational program of three years or more at a university or an educational institution in a foreign country (which has been evaluated for its educational and research activities by an institute certified by the government or its related organization, or an equivalent thereof designated by the Minister of Education, Culture, Sports, Science and Technology, Japan) (including individuals who have completed a correspondence course offered by the foreign educational institution while residing in Japan, and individuals who have completed an educational program at an educational institution authorized by the School Education System and designated as such by the Minister of Education, Culture, Sports, Science and Technology, Japan), and have been conferred a degree that is equivalent to a Bachelor's degree, or will be conferred said degree by March 2021
 - (7) Persons who have completed a professional course (with a term of four years or longer and which fulfills the requirements of the Minister of Education, Culture, Sports, Science and Technology of Japan) designated as such by the Minister after the day it was so designated, or persons scheduled to fulfill said requirement by March 2021
 - (8) Persons designated by the Minister of Education, Culture, Sports, Science and Technology of Japan. (1953 Ministry of Education Notification No.5)
 - (9) Persons who have been enrolled in another graduate school in accordance with the provisions of School Education Law Article 102, Paragraph 2 and have been deemed by the Graduate School to have the academic ability required to study at the Graduate School
 - (10) Persons who are 22 years of age or older at the time of entrance, and after having undergone the preliminary qualification screening and have been determined to have a level of academic ability equal to or higher than that of a graduate of a college by the Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama
 - (11) Persons who have been enrolled in a college for three years or longer and regarded as having acquired the necessary credits with outstanding results during the period of enrollment by the Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama
 - (12) Persons who can submit the original TOEFL/TOEIC (TOEFL-iBT, TOEFL-ITP, TOEIC L&R or TOEIC L&R-IP) score sheet (issued on or after September 1, 2018) by February 5, 2021

Note: Applicants who fall into categories (8)~(11) are required to contact the Educational Affairs Division of Medicine and Pharmaceutical Sciences Majors (in charge of admission), Student Academic Affairs Division, University of Toyama for details by December 4 (Friday), 2020.

3. Selection Method

Applicants are selected on the basis of the results of a written examination, an oral examination and an external English examination (refer to "6 Use of scores on external English examination" on page 11), as well as an evaluation of academic transcripts.

(1) Written Examination

- Basic pharmacy subjects: Applicants select four questions out of 13 questions regarding six subjects (two from Pharmacology, three from Organic Chemistry, three from Biochemistry, three from Physical Chemistry, one from Pharmaceutics and one from Pharmacognosy).

(2) Oral Examination

(3) Examination Schedule and Venue

Date	Time	Subject	Venue
Feb. 5 (Friday), 2021	9:30 ~ 12:00	Basic pharmacy subjects	University of Toyama Sugitani Campus (Medicine and Pharmaceutical Sciences), 2630 Sugitani, Toyama City, Toyama
	15:00 ~ (planned)	Oral examination	

Note: The starting time for the oral examination is subject to change, depending on the number of applicants. Should the starting time change, applicants will be notified when examination admission cards are sent.

Special Admission for Working Students

1. Capacity

Department	Research field	Laboratory	Number of Students Accepted
Pharmaceutical Basic Sciences	Drug Design and Medicinal Chemistry	Chemical Biology, Synthetic and Medicinal Chemistry, Synthetic and Biomolecular Organic Chemistry, Biointerface Chemistry, Structural Biology, Natural Products & Drug Discovery	A few
	Pharmacology and Biopharmaceutics	Biopharmaceutics, Applied Pharmacology, Pharmaceutical Physiology, Neuromedical Science, Pharmaceutical Technology, Complex Biosystem Research	
	Biochemistry and Molecular Biology	Biorecognition Chemistry, Cancer Cell Biology, Molecular Neurobiology, Gene Regulation, Molecular Cell Biology, Host Defences, Molecular Genetics	
	Natural Medicine	Medicinal Bioresources, Pharmacognosy, Kampo Diagnostics	
	Clinical Medicine	Clinical Pharmacology, Clinical Pharmacokinetics, Pharmaceutical Therapy and Neuropharmacology, Medical Pharmacy, Clinical Pharmaceutics	

Note:1 Applicants should consult with the professor (associate professor) of the laboratory for their desired area of study prior to submitting their application.

2. Eligibility

Persons who meet any of the following criteria and have a minimum of three years work experience are eligible to apply:

- (1) Persons who have graduated from a university
- (2) Persons with a bachelor by the National Institution for Academic Degrees and Quality Enhancement of Higher Education under Article 104, Paragraph 7 of School Education Act
- (3) Persons who have completed 16 years of formal education abroad
- (4) Persons who have completed 16 years of formal education provided by an educational institution in a foreign country, including periods of correspondence or distance study while residing in Japan
- (5) Persons who have completed the course of an educational institution located in Japan that offers courses for a foreign university as part of the school education system of that country (limited to those who have completed a 16-year course of school education in that country)
- (6) Persons who have completed an educational program of three years or more at a university or an educational institution in a foreign country (which has been evaluated for its educational and research activities by an institute certified by the government or its related organization, or an equivalent thereof designated by the Minister of Education, Culture, Sports, Science and Technology, Japan) (including individuals who have completed a correspondence course offered by the foreign educational institution while residing in Japan, and individuals who have completed an educational program at an educational institution authorized by the School Education System and designated as such by the Minister of Education, Culture, Sports, Science and Technology, Japan), and have been conferred a degree that is equivalent to a Bachelor's degree.

- (7) Persons designated by the Minister of Education, Culture, Sports, Science and Technology of Japan. (1953 Ministry of Education Notification No.5)
- (8) Persons who have been enrolled in another graduate school in accordance with the provisions of School Education Law Article 102, Paragraph 2 and have been deemed by the Graduate School to have the academic ability required to study at the Graduate School

Note: Applicants who fall into categories (7)or(8) are required to contact the Educational Affairs Division of Medicine and Pharmaceutical Sciences Majors (in charge of admission), Student Academic Affairs Division, University of Toyama for details by December 4 (Friday), 2020

3. Selection Method

Applicants are selected on the basis of the results of a written examination and an oral examination, as well as an evaluation of academic transcripts.

- (1) Written Examination
 - Short thesis
- (2) Oral Examination
- (3) Examination Schedule and Venue

Date	Time	Subject	Venue
Feb. 5 (Friday), 2021	13:00 ~ 14:00	Short thesis	University of Toyama Sugitani Campus (Medicine and Pharmaceutical Sciences), 2630 Sugitani, Toyama City, Toyama
	15:00 ~ (planned)	Oral examination	

Note: The starting time for the oral examination is subject to change, depending on the number of applicants. Should the starting time change, applicants will be notified when examination admission cards are sent.

Special Admission for International Students

1. Capacity

Department	Research field	Laboratory	Number of Students Accepted
Pharmaceutical Basic Sciences	Drug Design and Medicinal Chemistry	Chemical Biology, Synthetic and Medicinal Chemistry, Synthetic and Biomolecular Organic Chemistry, Biointerface Chemistry, Structural Biology, Natural Products & Drug Discovery	A few
	Pharmacology and Biopharmaceutics	Biopharmaceutics, Applied Pharmacology, Pharmaceutical Physiology, Neuromedical Science, Pharmaceutical Technology, Complex Biosystem Research	
	Biochemistry and Molecular Biology	Biorecognition Chemistry, Cancer Cell Biology, Molecular Neurobiology, Gene Regulation, Molecular Cell Biology, Host Defences, Molecular Genetics	
	Natural Medicine	Medicinal Bioresources, Pharmacognosy, Kampo Diagnostics	
	Clinical Medicine	Clinical Pharmacology, Clinical Pharmacokinetics, Pharmaceutical Therapy and Neuropharmacology, Medical Pharmacy, Clinical Pharmaceutics	

Note:1 Applicants should consult with the professor (associate professor) of the laboratory for their desired area of study prior to submitting their application.

2. Eligibility

Persons of foreign nationality to whom any of the following items applies are eligible to apply for admission.

- (1) Persons who have completed 16 years of formal education abroad, or who are scheduled to fulfill said requirement by March 2021.
- (2) Persons who have completed an educational program of three years or more at a university or an educational institution in a foreign country (which has been evaluated for its educational and research activities by an institute certified by the government or its related organization, or an equivalent thereof designated by the Minister of Education, Culture, Sports, Science and Technology, Japan) (including individuals who have completed a correspondence course offered by the foreign educational institution while residing in Japan, and individuals who have completed an educational program at an educational institution authorized by the School Education System and designated as such by the Minister of Education, Culture, Sports, Science and Technology, Japan), and have been conferred a degree that is equivalent to a Bachelor's degree, or will be conferred said degree by March 2021.
- (3) Persons who are 22 years of age or older at the time of entrance, and after having undergone the preliminary qualification screening and have been determined to have a level of academic ability equal to or higher than that of a graduate of a college by the University of Toyama Graduate School of Medicine and Pharmaceutical Sciences.
- (4) Persons who have been enrolled in another graduate school in accordance with the provisions of School Education Law Article 102, Paragraph 2 and have been deemed by the Graduate School to have the academic ability required to study at the Graduate School

Note: Applicants who fall into categories (3) or (4) are required to contact the Educational Affairs Division of Medicine and Pharmaceutical Sciences Majors (in charge of

admission), Student Academic Affairs Division, University of Toyama for details by December 4 (Friday), 2020

3. Selection Method

Applicants are selected on the basis of the results of a written examination, an oral examination and an external English examination (only applicable persons, refer to “6 Use of scores on external English examination” on page 11), as well as an evaluation of academic transcripts.

(1) Written Examination

- Basic pharmacy subjects:
Applicants select one subject from among Pharmacology, Organic Chemistry, Biochemistry, Physical Chemistry, Pharmaceutics and Pharmacognosy.
- Foreign language: English (Specialized)
※ Applicants who submit a score sheet for an external English examination will be exempted from a written English examination.

(2) Oral Examination

(3) Examination Schedule and Venue

Date	Time	Subject	Venue
Feb. 5 (Friday), 2021	9:30 ~ 10:30	Basic pharmacy subjects	University of Toyama Sugitani Campus (Medicine and Pharmaceutical Sciences), 2630 Sugitani, Toyama City, Toyama
	13:00 ~ 14:00	Foreign language (English (Specialized))	
	15:00 ~ (planned)	Oral examination	

Note: The starting time for the oral examination is subject to change, depending on the number of applicants. Should the starting time change, applicants will be notified when examination admission cards are sent.

Information for All Applicants

1. Application Procedure

(1) Method of Application

After paying the examination fee, write the applicable item from 2) below on an envelope in red ink and post the application documents by registered express mail.

1) Application Period

From December 14 (Monday), 2020 to January 8 (Friday), 2021 (as indicated by postmark)

Mailing address: Educational Affairs Division of Medicine and Pharmaceutical Sciences Majors (in charge of admission), University of Toyama, 2630 Sugitani, Toyama 930-0194

Telephone: (076) 434-7658 From abroad: +81-76-434-7658

For information on the method of examination fee payment, refer to (3) Method of Examination Fee Payment.

2) Items to Be Written on the Envelope

- **General Admission**

Contains an application for the Graduate School of Medicine and Pharmaceutical Sciences (Master's Program General Admission)

- **Special Admission for Working Students**

Contains an application for the Graduate School of Medicine and Pharmaceutical Sciences (Master's Program Special Admission for Working Students)

- **Special Admission for International Students**

Contains an application for the Graduate School of Medicine and Pharmaceutical Sciences (Master's Program Special Admission for International Students)

(2) Application Documents

Documents		Applicable Documents
1)	Application for Admission	Prepared using the University's prescribed form
2)	Certificate of (Expected) Bachelor's Degree	The certificate must be signed by the president or dean of the issuing university. (Not required for graduates from the School of Pharmacy and Pharmaceutical Sciences of the University of Toyama)
3)	Academic transcript	Prepared and sealed by the president or dean of the issuing university If forge-proof/copy-prevention paper is used, wax-sealing of the envelope is not necessary.
4)	Examination Admission Card / Photo Identification Card	Prepared using the University's prescribed form. Attach a photograph (upper body photo of the applicant alone taken full face with no head covering within three months of the application (4 cm in length x 3 cm in width)).
5)	Certificate of payment (Examination Fee)	Download and print out the Certificate of Payment. Cut along the dotted lines to get your certificate of payment, then paste it on its designated location in the application form.
6)	Letter of Approval for Entrance Examination	Applicants who are enrolled in a graduate school elsewhere than at the University of Toyama or who are employed at a public office or private company are required to submit an approval for examination signed by the dean of their graduate school or their immediate supervisor at work. (No specific format required)

7)	Copy of the Certificate of Residence	Foreign nationals currently residing in Japan should attach a Copy of the Certificate of Residence issued by the city, town, village or special ward in which they reside.
8)	Stamped, self-addressed envelope	Used to post the Examination Admission Card. Please write your name, address, and postal code on a No. 3 long envelope (23.5 cm x 12 cm) and attach postage stamps to the amount of ¥374 (special delivery).
9)	Mailing label (used to post the notice of examination results)	Prepared using the University's prescribed form. Write your name, address, and postal code.
10)	TOEFL/TOEIC score sheet (original)	Please submit one of the following original score sheets. (Required of applicants in the category of general admission.) (We will return it in the reply envelope after photocopying it.) (1) TOEFL-iBT score report for the applicant (2) TOEFL-ITP score report (3) TOEIC L&R Official Score Certificate (4) TOEIC L&R-IP Score Report Only score sheets issued on or after September 1, 2018 are valid. General admissions applicants who cannot submit score sheet within the application period must submit a copy of the examination ticket instead, and submit the original score sheet by February 5, 2021.
11)	Pledge (For a foreigner)	Prepared using the University's prescribed form Please see "7 Security Export Control" on page 12.

※ Documents written in a foreign language other than English must be accompanied by documents translated into Japanese or English.

(3) Method of Examination Fee Payment

Please pay the examination fee of 30,000 yen according to "Payment Flow of Entrance Examination Fee" on page 13. The Entrance Examination Fee Payment Website
<https://e-applyjp/n/toyama-gs-payment/>

Cautions

- The applicant must pay the handling fee in addition to the examination fee.
- Please enter the same personal information as the application for admission on the payment form.
- The examination fee can be paid one week in advance to the application period.

Examination fees cannot be refunded for any reason except in the following cases:

- 1) The applicant does not apply to the University of Toyama after remitting the examination fee (The applicant does not submit the application documents, or the application documents are not received.)
- 2) Double payment
- 3) Payment exceeding the required amount

Note: When applying to the University of Toyama for an examination fee refund, affix the slip of the Certificate of Payment (Examination fee) to the designated Examination Fee Refund Request Form, and mail it to the University of Toyama.

Mailing address: Accounting Group, Financial Affairs Division, University of Toyama, 3190 Gofuku, Toyama 930-8555

Telephone: (076) 445-6053 From abroad: +81-76-445-6053

(4) Advance Consultation for Applicants with a Disability

Since applicants with a disability may require special consideration when taking the entrance examination or attending school, they are requested to consult with the Educational Affairs Division of Medicine and Pharmaceutical Sciences Majors (in charge of admission), University of Toyama in advance.

At the time of consultation, applicants may be requested to submit a document containing the following matters and a doctor's certificate.

- Type and degree of disability
- Matters requiring special consideration at the time of the entrance examination
- Matters requiring special consideration at the time of school attendance
- Circumstances of daily life and other matters for reference

1) Consultation deadline: December 4 (Friday), 2020.

2) Contact information: Educational Affairs Division of Medicine and Pharmaceutical Sciences Majors (in charge of admission), University of Toyama, 2630 Sugitani, Toyama 930-0194

Telephone: (076) 434-7658 From abroad: +81-76-434-7658

2. Notification of Acceptance

The examinee numbers of successful applicants will be posted at the front entrance of the University of Toyama Sugitani Campus School of Pharmacy and Pharmaceutical Sciences Bldg. at 3:00 pm on February 19 (Friday), 2021 and the successful applicants will be notified. Telephone and facsimile inquiries will not be accepted.

3. Admission Procedure

The enrollment procedure is as follows. Successful applicants will be given more details.

(1) Enrollment Date: March 19 (Friday), 2021 (planned)

(2) Place: University of Toyama Sugitani Campus

(3) Documents Required for Admission

Notice of Acceptance, color photograph (4 cm in length x 3 cm in width), written pledge of school enrollment (University of Toyama prescribed form)

(4) Expenses Required for Admission

a) Admission fee: ¥282,000 (provisional amount)

Notes: 1) The above admission fee is a provisional amount. Should the admission fee be revised, the new admission fee will become effective at the time of the revision.

2) Once paid, admission fees cannot be refunded for any reason.

b) Other matters

1) In cases where payment of the admission fee is judged to be difficult, after screening an exemption may be granted, or collection may be postponed.

2) Tuition is paid after admission. Information on the tuition amount and payment method is provided at the time of enrollment.

Reference information: Tuition for the 2020-2021 academic year: ¥535,800 per year

3) Scholarships are available through the Admission Office.

4) Students are required to pay the cost of Personal Accident Insurance for Students Pursuing Education and Research and other items separately.

(5) Cautionary Statement

Persons who fail to complete the admission procedure on the enrollment date will be considered to have declined admission.

4. Privacy Policy

Personal information held by the University is handled in accordance with the Act on the Protection of Personal Information Held by Administrative Organs and the University of Toyama Policies on Personal Information Protection

- (1) Names, addresses, and other personal information that the University of Toyama obtains from applicants will be used for 1) the selection of students (processing of applications and the selection process), 2) announcement of successful applicants, 3) enrollment procedures, 4) investigation and research for the selection process, and 5) other related activities.
- (2) Personal information obtained from persons who have completed the admission procedures will be used for preparatory education before admission and for 1) instruction and administration (the school register, student guidance, etc.), 2) student assistance (health management, application for tuition exemptions and scholarships, employment assistance, etc.), 3) the collection of tuition after admission and 4) statistical survey and data analysis.
- (3) Only the examinee numbers, names and addresses of successful applicants may be used to facilitate contact by organizations related to after-school activities, the alumni association, the support association, and the student cooperative association of the University of Toyama.

Note: Successful applicants who do not wish to be contacted by the abovementioned organizations should notify the Educational Affairs Division of Medicine and Pharmaceutical Sciences Majors (in charge of admission), University of Toyama to that effect.

- (4) The University of Toyama may partially outsource operations to commissioned companies (hereinafter referred to as “Contractors”). We may provide said Contractors with all or part of the personal information obtained through the application process as required for the execution of contracted business. We supervise the use of information to ensure compliance with confidentiality.

5. Cautions

- (1) If there is any defect in the application documents, the application may not be accepted.
- (2) If there is a shortage in the examination fee payment, the application shall not be accepted.
- (3) Once accepted, the application documents and related materials shall not be returned for any reason.
- (4) If any of the information provided in the submitted documents is found to be false even after acceptance for admission, the admission of a successful applicant may be cancelled.
- (5) Please forward any inquiry about application or other matters to the following address:
Educational Affairs Division of Medicine and Pharmaceutical Sciences Majors (in charge of admission), University of Toyama, 2630 Sugitani, Toyama 930-0194
Telephone: (076) 434-7658 From abroad: +81-76-434-7658

6. Use of scores on external English examination

For general admission, a written English examination is not conducted. Applicants will be evaluated based on the score calculated from their official scores on the TOEFL-iBT, TOEFL-ITP, TOEIC L&R, or TOEIC L&R-IP. The score conversion formulae are shown below.

As for special admission for international students, applicants who have submitted their official scores on the TOEFL-iBT, TOEFL-ITP, TOEIC L&R, or TOEIC L&R-IP are not requested to take a written English examination; the score submitted by the student will be used for evaluation. Only applicants who cannot submit their official scores on the

TOEFL-iBT, TOEFL-ITP, TOEIC L&R, or TOEIC L&R-IP are requested to take a written English examination.

Scores on the TOEFL-iBT, TOEFL-ITP, TOEIC L&R, or TOEIC L&R-IP are converted into points out of 100, and used for the evaluation.

If an applicant has taken two or more examinations, the highest score will be used for the evaluation.

Scores submitted must have been issued on or after September 1, 2018.

<Score conversion formulae>

1) TOEFL-iBT

70 or higher = 100 points

In the case of lower than 70 :

Converted score: $100 \times (\text{TOEFL-iBT score}) / 70$

2) TOEFL-ITP

525 or higher = 100 points

In the case of lower than 525 :

Converted score: $100 \times \{(\text{TOEFL-ITP score}) - 310\} / 215$

310 or lower = 0 point

3) TOEIC L&R and TOEIC L&R-IP

730 or higher = 100 points

In the case of lower than 730 :

Converted score: $100 \times (\text{TOEIC score}) / 730$

7. Security Export Control

The University of Toyama has established the "University of Toyama Security Export Control Regulations" based on the "Foreign Exchange and Foreign Trade Act", and strictly screening the International students in the perspective of providing technology and export of research equipment and materials. If International students who fall under any of the regulated items, you may not be able to get the permission to enrol, and receive the desired education at the university. There may be restrictions on your desired research activities.

International students should consult their academic advisor before applying and are required to sign a pledge to comply the "Foreign Exchange and Foreign Trade Act" at the time of application.

For more information, please visit the University website.

[Reference] "University of Toyama Security Export Control Regulations"

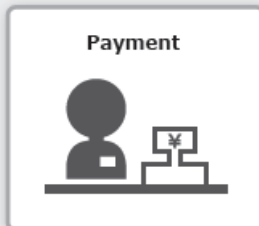
URL <http://www3.u-toyama.ac.jp/soumu/kisoku/pdf/0110401.pdf>

Payment Flow of Entrance Examination Fee

Prepare an Email address, a computer that is connected to the Internet, and printer.



Your application is NOT complete until you have registered your information in the entrance examination fee payment website. Send us the required documents and the examination fee payment certificate to University of Toyama.



STEP 1 Go to the Entrance Examination Fee Payment Website

The Entrance Examination Fee Payment Website

▶ <https://e-apply.jp/n/toyama-gs-payment/>
or

Official Website of University of Toyama

▶ <https://www.u-toyama.ac.jp/admission/graduate/index.html>

STEP 2 Register Personal Information

- 1) Make sure you follow the screen procedures and important notices.
- 2) Choose the payment method of entrance examination fee.
- 3) Enter the required information and record the payment processing number.

STEP 3 Pay Entrance Examination Fee

【Pay at the Convenience Store, Pay-easy ATM banks, Internet banking】

Make a payment at the convenience stores (Seven Eleven, Lawson, Ministop, Family Mart, Daily Yamazaki, and Seico Mart), Pay-easy ATMs of Post offices or Banks, and internet banking.

※ Payment can not be made at stores outside Japan.

【Pay with Credit Card】

Make sure the card number, expiration date, card holder name, and security code, to pay the fee.

(Accepted Credit Cards)

VISA, Master, JCB, AMERICAN EXPRESS, MUFG Card, DC Card, UFJ Card, NICOS Card

STEP 4 Print out the Certificate of Payment

The Entrance Examination Fee Payment Website

▶ <https://e-apply.jp/n/toyama-gs-payment/>

Click on "Review" button to download and print out the Certificate of Payment. Cut along the dotted lines to get your certificate of payment, then paste it on its designated location in the application form.

STEP 5 Send all application documents

Send the form with pasted certificate of payment and all other application documents, via registered express mail at the post office, within the application submission deadline.

※ See the details of each school/graduate school for application guide.



● Make sure the information you enter is correct, as you will not be able to revise/change any of this information after registration is complete. However you may re-register the correct information and "revise" the information this way, as long as it is before you have made the payment.

※ Take notice that if you chose to pay with your credit card, the payment will be made as soon as you register your personal information.

Overview of the Master's Program in the Department of Pharmaceutical Basic Sciences

1. Purpose

In accordance with the university's founding principle, the Master's Program in the Department of Pharmaceutical Basic Sciences, Graduate School of Medicine and Pharmaceutical Sciences involves collaboration between the fields of Medicine and Pharmacy, and offers unique instruction and research that integrate Eastern and Western medicine and science through natural medicine. It cultivates a high level of expertise based on wide-ranging knowledge and well-rounded creativity. Students develop an awareness of the importance of defending human dignity, and acquire the sense of judgment needed to actively contribute to the development of academic research and society as researchers.

2. List of Subjects and Credits

See Appendix I.

3. Outline of the Subjects

See Appendix II.

4. Requirements for completion of the program

The requirements for the master's program in Pharmaceutical Basic Sciences are enrollment for a period of two or more years, 30 or more credits in the designated subjects (including special research, etc.) and successful completion of a screening of a master's dissertation and final examination after having obtained the necessary research guidance.

5. Conferral of Degree

The degree offered is a Master of Philosophy in Pharmaceutical Sciences.

Appendix I

List of Subjects and Credits

Pharmaceutical Basic Sciences

Subject Name	Credits			Required/Elective	Remarks
	Lecture	Seminar	Experiment / Special research		
Molecular Chemistry	2			Elective	
Molecular Design	2			Elective	
Physical and Structural Biology	2			Elective	
Pharmacology	2			Elective	
Advanced Topics in Molecular Physiology	1			Elective	
Biopharmaceutics and Pharmacokinetics	2			Elective	
Special lecture course of gene regulation	1			Elective	
Genetic approach for analyzing the molecular mechanisms of life	1			Elective	
Molecular Regulation of Disorder	2			Elective	
Cell Signaling	1			Elective	
Advanced Bioanalytical Chemistry	1			Elective	
Advanced Chemistry of Natural Products	2			Elective	
Medical and Pharmaceutical Basis of Kampo Medicine (Traditional Japanese - Chinese Medicine)	2			Elective	
Advanced Pharmaceutics	1			Elective	
Introduction to Clinical Biostatistics	1			Elective	
Designing Clinical Research	1			Elective	
Special Lecture on Clinical Pharmacy at University of Southern California	2			Elective	
Pharmacy seminar		6		Required	
Pharmaceutical science special research			14	Required	
Japanese Language & Culture	2			Optional	for foreign student
Total	28	6	14		

Required number of credits:

Lecture (Elective)	10
Pharmacy seminar (Required subject)	6
Pharmaceutical science special research (Required subject)	14
Total	30

Required number of credits in the Master's program: 30 credits or more

Appendix II

Outline of the Subjects

Pharmaceutical Basic Sciences

Subject	Outline
Molecular Chemistry	<ol style="list-style-type: none">1. Synthetic method for nitrogen-containing drugs2. Development of versatile synthetic reactions3. Synthesis and functionalization of biologically active molecules4. Medicinal research based on molecular characteristics
Molecular Design	This class discusses the following subjects; 1. design of biomolecular and pharmacologically active compounds 2. strategy for the synthesis of target compounds.
Physical and Structural Biology	We review in this lecture the physical property of molecular assemblies in drug design. NMR spectroscopy and X-ray crystallography of proteins are also reviewed.
Pharmacology	We review experimental approaches to the study of following diseases and pharmacological agents: 1. painful diseases, 2. pruritic diseases, 3. digestive tract disorders, 4. diabetes mellitus, 5. neuropsychiatric disorders, 6. inverse agonists, and 7. psychotropic agents.
Advanced Topics in Molecular Physiology	Molecular mechanisms of ion transports by pumps and channels in gastrointestinal tracts. Molecular aspects for drug discovery focused on cancer, genetic disease, ulcer and diarrhea in gastrointestinal tracts.
Biopharmaceutics and Pharmacokinetics	Application of biopharmaceutical and pharmacokinetic theory to clinical problems involved in optimizing and monitoring drug use in patients.
Special lecture course of gene regulation	<ol style="list-style-type: none">1. Transcription regulation2. Chromatin regulation3. Epigenetics4. Posttranscriptional regulation of gene expression5. Non-coding RNAs6. Dysregulation of gene expression and diseases
Genetic approach for analyzing the molecular mechanisms of life	<ol style="list-style-type: none">1. Analyses for the development of animals.2. Regulation of gene expression responsible for the development of animals.3. Molecular mechanisms of synaptic plasticity.4. Molecular analyses of pathogenesis of neurological disorders.
Molecular Regulation of Disorder	Molecular mechanisms of immunity, inflammation, and cancer; Pathology of cell organelles.
Cell Signaling	We review the regulation of signal transduction molecules, including receptors and protein kinases, and their pathophysiological functions in human diseases.
Advanced Bioanalytical Chemistry	Analytical chemistry regarding biomolecules including protein and DNA for studies in the fields of life sciences and drug discovery
Advanced Chemistry of Natural Products	Recent developments and findings for bioactivities, biosyntheses, and metabolic engineering of natural products in plants and microorganisms.

Subject	Outline
Medical and Pharmaceutical Basis of Kampo Medicine (Traditional Japanese Medicine)	In this class, students will be lectured about experience-based and evidence-based clinical applications of Kampo medicine, fundamental factors involved in alteration of pharmacological activities and chemical constituents of Kampo medicines, etc, focusing particularly on recent advances in preclinical/clinical studies on Kampo medicines.
Advanced Pharmaceutics	Advanced pharmaceutical formulations and administration forms of the drugs for enhancing the effectiveness, safety and reliability of them are lectured. Importance and usefulness of drug delivery system (DDS) is also summarized.
Introduction to Clinical Biostatistics	Statistical thinking, research design and protocol development, basic statistics, multivariate analysis, exercises in statistical analysis, statistics in research papers.
Designing Clinical Research	Genetic statistics, genetic epidemiology, principal component analysis, cluster analysis, design and analysis of microarray experiments, multi-factor dimensionality reduction (MDR) method.
Special Lecture on Clinical Pharmacy at University of Southern California	Students should participate in the summer clinical education program (for 2 weeks) held at University of Southern California (USC) School of Pharmacy, which has concluded academic agreement with us. This will be a good opportunity for them to understand educational system of pharmacy in US and to acquire an international sense. They may also notice difference in clinical pharmacy between US and Japan.
Japanese Language & Culture (for foreign students)	This class aims to support adaptation of international students to living Japan, giving advices about Japanese language and culture. Students will acquire necessary linguistic skills to understand lectures, and they will gain sufficient knowledge of Japanese society and culture to have a sound life in Japan.

Appendix III

List of Academic Advisors and Their Research Themes

Major	Field	Laboratory	Academic Advisor	Research Theme
Pharmaceutical Basic Sciences	Drug Design and Medicinal Chemistry	Chemical Biology	Professor INOUE Masahiko Associate Professor CHIBA Junya	<ul style="list-style-type: none"> • Chemical biology based on synthetic chemistry, particularly three projects in artificial DNA, protein control, and saccharide recognition
		Synthetic and Medicinal Chemistry	Professor MATSUYA Yuji Associate Professor SUGIMOTO Kenji	<ul style="list-style-type: none"> • Development of new organic reactions for drug discovery • Search for novel seeds of new drugs and structure-activity relationship research • Synthesis and structural optimization of bioactive compounds
		Synthetic and Biomolecular Organic Chemistry	Professor YAKURA Takayuki Associate Professor NAMBU Hisanori	<ul style="list-style-type: none"> • Development of environmentally benign organic reactions • Synthesis of biologically active natural products • Pharmaceutical chemical research in bioactive substances
		Biointerface Chemistry	Professor NAKANO Minoru Associate Professor IKEDA Keisuke	<ul style="list-style-type: none"> • Study of membrane lipid dynamics and elucidation of lipid transfer machinery • Elucidation of lipid flip-flop mechanisms • Biophysical research for interaction of amyloid beta with membranes • Structural and functional investigation and pharmaceutical application of lipid nanoparticles
		Structural Biology	Professor MIZUGUCHI Mineyuki Associate Professor OBITA Takayuki	<ul style="list-style-type: none"> • Studies on the conformations of disease related proteins • Structural basis for intracellular membrane trafficking • Protein structure-based drug discovery

Pharmaceutical Basic Sciences	Drug Design and Medicinal Chemistry	Natural Products & Drug Discovery	Professor MORITA Hiroyuki Associate Professor Suresh Awale	<ul style="list-style-type: none"> • Studies on biosynthesis of naturally occurring bioactive compounds • Structural basis for secondary metabolite enzymes • Enzyme engineering for novel drug development • Isolation of bioactive compounds from plants, microorganisms, and marine organisms • Investigation of Asia's natural resources not fully utilized • Discovery of natural anticancer agents from medicinal plant resources by employing a novel antiausterity screening strategy • Chemical investigation of medicinal plants and search for novel bioactive secondary metabolites • Investigation of the structure-activity relationship of the active natural compounds and their mechanism of action against cancer cell survival pathways • Discovery of metabolomic biomarkers associated with cancer cells by utilizing FT-NMR and MS strategy
	Pharmacology and Biopharmaceutics	Biopharmaceutics	Professor HOSOYA Ken-ichi Associate Professor KUBO Yoshiyuki	<ul style="list-style-type: none"> • Blood-retinal barrier transport function analysis and drug delivery to the retina • Blood-retinal barrier cell reconstruction and analysis of interaction between cells • Elucidation of biological function and transport function in in vivo barrier tissue
		Applied Pharmacology	Professor KUME Toshiaki	<ul style="list-style-type: none"> • Elucidation of pathogenesis mechanisms of neurodegenerative diseases, pruritus, pain and dysesthesia and search and development of preventive and therapeutic drugs for these disorders • Establishment of novel animal models that exhibit the brain diseases and the sensory symptoms, such as itch, pain and dysesthesia • Search for cytoprotective substances derived from foods and plants
		Pharmaceutical Physiology	Professor SAKAI Hideki Associate Professor SHIMIZU Takahiro	Physiological, biochemical and pharmacological studies in normal and cancer cells to clarify <ol style="list-style-type: none"> 1) interactions between drugs and ion-transporting proteins 2) transportsome functions 3) functional relations among ion-transporting proteins

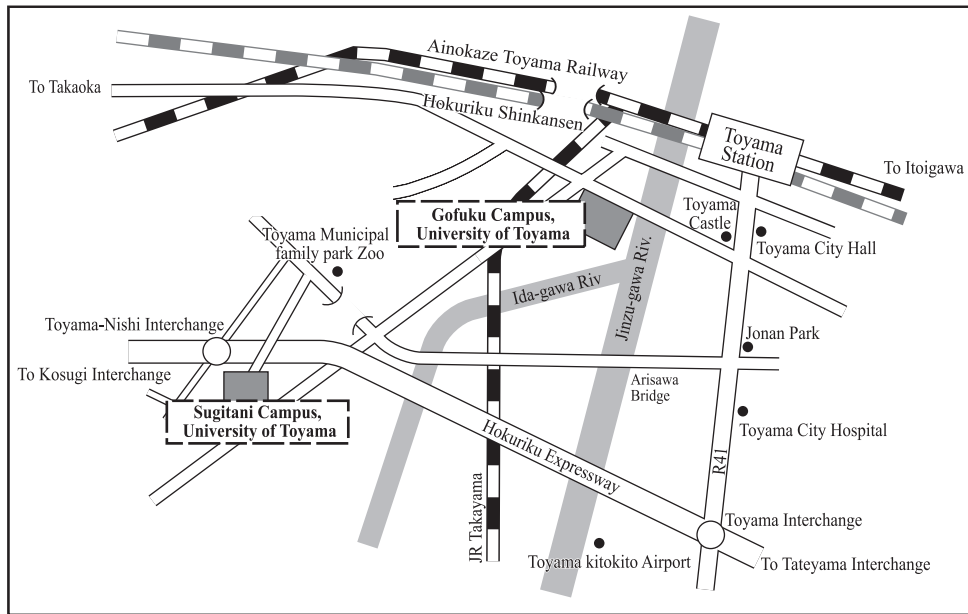
Pharmaceutical Basic Sciences	Pharmacology and Biopharmaceutics	Neuromedical Science	<p>Professor TOHDA Chihiro</p> <p>Associate Professor TOHDA Michihisa</p>	<ul style="list-style-type: none"> • Traditional medicine research for developing fundamental therapeutic drugs for Alzheimer's disease, spinal cord injury or depression • Nervous system-Peripheral organ interaction regulating neural network formation • Proof of concept in humans aiming to develop new botanical drugs and new Kampo formulas • Consilienceology for Wakan-yaku <ol style="list-style-type: none"> 1) Diagnosis for functional mental diseases based on the Wakan-yaku response, and clarification of molecular mechanisms for the diseases 2) Development of novel Wakan-yaku prescriptions to prevent lethal recurrence of heart failure
		Pharmaceutical Technology	<p>Professor ONUKI Yoshinori</p>	<ul style="list-style-type: none"> • Development of optimization techniques for designing pharmaceutical formulations and manufacturing processes • Studies on pharmaceutical characteristics using molecular imaging techniques
		Complex Biosystem Research	<p>Professor NAKAGAWA Yoshimi</p>	<ul style="list-style-type: none"> • Functional analysis of transcription factors that regulate glucose / lipid metabolism • Study for nutrient metabolism regulation by cell-cell and tissue-tissue interaction • Evaluation of treatment of lifestyle-related diseases by Wakan-yakue • Study for the mechanism of lifestyle-related diseases caused by sleep disorders • Establishment of information science analysis using integrated omics analysis
	Biochemistry and Molecular Biology	Biorecognition Chemistry	<p>Professor TOMOHIRO Takenori</p> <p>Associate Professor TANIMOTO Hiroki</p>	<ul style="list-style-type: none"> • Chemical biology for efficient drug discovery: target identification, visualization, utilization, and manipulation • Drug activity-based functional proteomics • Synthetic multicomponent integration strategy toward chemical biology and drug discovery
		Cancer Cell Biology	<p>Professor SAKURAI Hiroaki</p> <p>Associate Professor YOKOYAMA Satoru</p>	<ul style="list-style-type: none"> • Elucidation of the molecular mechanisms of tumor progression via inflammatory signaling pathways • Study on the activation mechanisms of molecular targets in cancer therapy • Study on the intracellular signals in malignant progression of melanoma

Pharmaceutical Basic Sciences	Biochemistry and Molecular Biology	Molecular Neurobiology	Associate Professor TABUCHI Akiko	<ul style="list-style-type: none"> • Elucidation of the molecular mechanisms underlying regulation of neuronal function and plasticity by gene expression and cellular communication between synapses and a nucleus • Studies on neurological disorders caused by dysfunction of transcription factors and synaptic molecules • Basic studies on transcription factors and synaptic molecules toward drug development targeted for neurological disorders
		Gene Regulation	Associate Professor HIROSE Yutaka	<ul style="list-style-type: none"> • Study on the molecular mechanism of transcription initiation by RNA polymerase II • Study on the role of mammalian Mediator complex in controlling gene expression • Study on the regulatory mechanism of pre-mRNA processing coordinated with transcription • Study on the pathogenic mechanisms of human diseases caused by misregulation of gene expression program
		Molecular Cell Biology	Professor SO Takanori Associate Professor MORITA Masashi	<ul style="list-style-type: none"> • Elucidation of novel pro-inflammatory cytokine signaling mechanisms regulated by TRAF family molecules • Elucidation of regulatory mechanisms of TNFR family molecules in CD4⁺ T cells • Elucidation of molecular pathology of X-linked adrenoleukodystrophy
		Host Defences	Professor HAYAKAWA Yoshihiro Associate Professor WATANABE Shiro Associate Professor KOIZUMI Keiichi	<ul style="list-style-type: none"> • Study of NK cell biology and its roles in immunity • Role of innate immune responses in cancer progression • Immunological study of inflammatory & allergic diseases • Modulation of immune responses and immunological diseases by Kampo medicines • Study to regulate cancer progression & metastasis • Elucidation of novel actions of kampo medicines and food factors on the basis of modulation of intraluminal bile acid metabolism in gastrointestinal tract • Research on mucosal immune activity and mucosal vaccine adjuvant effect
		Molecular Genetics	Professor TABUCHI Yoshiaki	<ul style="list-style-type: none"> • Mechanical control of cell differentiation • Elucidation of molecular mechanism of cellular stress response • Reconstruction of tissue functions by immortalized cells

Pharmaceutical Basic Sciences	Natural Medicine	Medicinal Bioresources	Associate Professor TAURA Futoshi	<ul style="list-style-type: none"> • Comprehensive elucidation of biosynthetic pathways producing secondary metabolites in medicinal plants • Relationship between structures and catalytic activities of biosynthetic enzymes of natural products • Application of biosynthetic genes for synthetic biology
		Pharmacognosy	Professor KOMATSU Katsuko (will be retired in March 2022) Associate Professor TOUME Kazufumi	<ul style="list-style-type: none"> • Pharmacognostical study on medicinal plants and herbal drugs by molecular systematic, chemical and pharmacological approaches • Study on quality standardization of herbal drugs as well as health supplements • Field investigation on herbal drug resources and traditional medicine around the world • Chemometric profiling of multiple components in crude drugs and Kampo formula • Discovery of bioactive natural compounds from traditional medicines
		Kampo Diagnostics	Professor SHIBAHARA Naotoshi	<ul style="list-style-type: none"> • Pharmacological effects of Kampo medicines and their herbal components, as well as their mechanisms of action • Search for indicators of clinical pathology of Kampo medicine and “sho”
	Clinical Medicine	Clinical Pharmacology	Professor SASAKA Toshiyasu Associate Professor TSUNEKI Hiroshi Lecturer WADA Tsutomu	<ul style="list-style-type: none"> • Development of new insulin sensitizers based on the mechanisms of type 2 diabetes and insulin resistance • Elucidation of central mechanisms regulating energy and glucose homeostasis via inter-organ metabolic pathway • Development of a novel treatment of diabetic complications based on the pathogenic mechanisms

Pharmaceutical Basic Sciences	Clinical Medicine	Clinical Pharmacokinetics	Professor HASHIMOTO Yukiya Associate Professor TAGUCHI Masato	<ul style="list-style-type: none"> • Basic and clinical research on pharmacokinetics and drug efficacy/toxicity: especially, analysis of effects of disease states, concurrently-administered drugs, and genetic polymorphisms on the function of the drug-metabolizing enzyme and transporter; furthermore, development of individualized dosage regimens based on the influencing factors identified
		Pharmaceutical Therapy and Neuropharmacology	Professor NITTA Atsumi	<ul style="list-style-type: none"> • Behavioral pharmacological, molecular biological and cell biological studies to clarify the function of the novel molecules for the psychiatric diseases • Study for the clarification of the mechanisms of establishment of addiction of nicotine, THC and methamphetamine • Pharmaceutical studies and pharmaceutical educational methods
		Medical Pharmaceutics	Professor TO Hideto	<ul style="list-style-type: none"> • Translational research for clinical application of chronotherapy • Development of new drugs targeting factors regulating the circadian rhythm of morbid states • Application of chronotherapy for individualized medicine
		Clinical Pharmaceutics	Professor KATO Atsushi	<ul style="list-style-type: none"> • Drug seed discovery research and evaluation of drugs targeting diabetes, allergic disorders, and other illnesses centered on glycomimetic alkaloids and herbal medicine-derived compounds • Biochemical research concerning glucolipid metabolic disorders focused on the properties of glycoproteins, glycohydrolases, and glycosyltransferases

University of Toyama Campus Locations



The site of examination Faculty of Medicine and Pharmaceutical Sciences, Sugitani Campus, University of Toyama

Transportation to the Faculty of Medicine and Pharmaceutical Sciences, Sugitani Campus, University of Toyama

◎By Bus

- About 30 -minute ride on Toyama Local Loop Bus “University Hospital of Toyama University” (bus stop No.3 departing in front of Toyama Station). Take off at “University Hospital of Toyama University”.

◎Others

- About 20 minutes by car from “Toyama kitokito Airport”
- About 5 minutes by car from “Toyama Nishi IC” on Hokuriku Expressway



Access to the Faculty of Medicine
and Pharmaceutical Science,
Sugitani Campus. University of Toyama

Inquiries about the Guidelines for Recruitment of Students, admission exam,
and preliminary consultation for applicants with physical disabilities

* The applicant should make inquiries on his or her own unless absolutely necessary.

The Examination Section of the Admissions Office for Educational Affairs Division(Sugitani Campus),
University of Toyama

Address: 2630 Sugitani, Toyama City, Japan 930-0194
TEL: 076-434-7658