

Application Guidebook
for Students Graduate School of Pharmaceutical Sciences
(Doctoral Program)
Cooperative Major in Nanopharmaceutical Sciences
Nagoya City University (NCU)
for Academic Year 2024

1. Prescribed enrollments

Cooperative Major in Nanopharmaceutical Sciences*... 4students※

※The total of general selection, special selection of working adults and October enrollment.

※The second will be held only if the admission capacity is not reached after the first exam.

*This course aims to cultivate researchers and engineers, at the graduate school jointly established by the Graduate School of Pharmaceutical Sciences of Nagoya City University (NCU) and Nagoya Institute of Technology (NIT), who are engaged in the development of new drug materials and drug delivery systems, and to nurture human resources with the ability to take up the drug development industry of Japan from a new perspective.

Students completing this course will be awarded with the academic degree of “Doctor of Philosophy (Nanopharmaceutical Sciences)” by both universities in their joint names.

2. Eligibility for applicants

- (1) A person who has Master’s degree or who is expected to graduate from Master’s course in university by March 2024.
- (2) A person who has or is expected to complete Master’s degree or the academic degree related to Master’s degree in foreign university by March 2024.
- (3) A person who has or is expected to complete Master’s degree or related degree in schooling program of the country outside Japan that is provided by correspondence education in Japan by March 2024.
- (4) A person who has completed a university educational program in the institution outside Japan (it is limited to a person who is recognized to complete a Master’s degree schooling outside Japan) and that program is approved by the Minister of Education, Culture, Sports, Science and Technology of Japan, or who is expected to complete such a program by March 2024.
- (5) A person who has or is expected to complete Master’s degree or the academic degree related to Master’s degree in United Nations University established based on United Nations General Assembly Resolution (December 11, 1972) defined by the Act on Special Measures Incidental to Enforcement of the "Agreement between the United Nations and Japan regarding the Headquarters of the United Nations University" (Act No. 72 of 1976) 1–1 by March 2024.
- (6) A person who has completed a university educational program in the institution outside Japan or United Nations University, and has passed the examination that is defined in the Standards for the Establishment of Graduate School of Universities (No. 28 of Ministry of Education Ordinance in 1979) No. 16–2, and is recognized that a person has academic ability equivalent to or higher than those who have Master’s degree by the Graduate School of Pharmaceutical Sciences of NCU.
- (7) A person approved by the Minister of Education, Culture, Sports, Science and Technology of Japan.
- (8) A person who has academic ability equivalent to or higher than those who have graduated from university by the individual achievement test conducted by the Graduate School of Pharmaceutical Sciences, NCU, and who will be 24-year-old or more at the end of March 2024.

Notice: Prior to submitting application materials to NCU, any applicants have to ask for a professor of the department about research plan after you will enroll in the graduate school.

Any applicants who fall under (6) ,(7)or (8) ,of “2. Eligibility of applicants” are preliminarily evaluated before the application. Under the consultation with the faculty member of the specialized department (major subject), send the preliminary examination-application documents by registered post express mail to the address shown below. Please mark “Application documents for preliminary examination to Ph.D.’s program of the Graduate School of Pharmaceutical Sciences,, NCU” in red in the lower left section of the front of the envelope. The mail must be arrived within the period below, **[must be received. Postmark date is not taken into account].**

[1st application] from June19 (Mon) to 21 (Wed), 2023

[2nd application] from Nov 29 (Wed) to Dec 1 (Fri), 2023

The mail sent from outside Japan will not be accepted. If applying from outside Japan, be sure to entrust your application procedure to a proxy residing in Japan. Notifications from NCU will be addressed to your proxy.

The preliminary examination-application documents: (Use the prescribed form of NCU)

- (1) Application for preliminary examination
- (2) Curriculum Vitae
- (3) Reasons for Application
- (4) Certificate of Research Experience
- (5) List of Research Achievements
- (6) Reply envelope (Clearly indicate your receiving address and put stamps for 344 yen to the envelope.)
- (7) ② and ③ described in the following 4. Application documents

3. Period of application

[1st application] July 13 (Thu) – July 19 (Wed), 2023 [must be received]

[2nd application] December 14 (Thu) – December 19 (Tue), 2023 [must be received]

Must be sent by post. Delivery in person is not accepted.

Fill in the required items on the cover of the envelope which is designated by the University, and paste the cover on the envelope (240mm×332mm) prepared by yourself. Enclose the application documents in the envelope above, and send them by registered express mail.

No Application forms are received in- person at the office or outside the designated period of application (**Postmark date is not taken into account**). When your application documents, etc. are accepted, you will receive your examination admission card and instructions for examination from us later.

If you do not receive them by within a week after application, please be sure to contact the Student Affairs Division, Administration Office of NCU

Application documents must be sent by post to

Nagoya City University
 Student Affairs Division, Administration Office of NCU
 1, Aza Kawasumi, Mizuho-cho, Mizuho-ku, Nagoya, Aichi 467-8601, Japan

Application by post from a foreign country will not be accepted. If applying from a foreign country, be sure to entrust your application procedure to a proxy residing in Japan. Notifications from NCU will be addressed to your proxy.

4. Application documents, etc. (Fill out in Japanese.)

Documents, etc.	Description
① Application for admission/ Photo Identification card/ Examination Admission card/ Curriculum Vitae (reverse side of application form)	<p>[Use the prescribed form of NCU]</p> <p>Affix your photograph to the application form. The photograph should be taken with you directly facing the camera. It should show your upper body and bare head, with no background. It should be in color, measuring 4 cm high x 3 cm wide, and taken within the last 3 months before the application.</p> <p>Enter the address at which you are (or a proxy is) certain to be contactable. In “Academic Background,” start from your initial admission to university. If you have work experience, provide the details in “Career.”</p> <p>If you have received school education in a foreign country, fill in your school education in full from elementary education (equivalent to elementary school) to higher education (equivalent to university education).</p>
② Transcript	<p>Transcript must be prepared by the president of the university that you are enrolled in or have graduated from.</p> <p>When it is difficult to obtain a reissued transcript, a photocopy can be received. Its authenticity will be verified during your entrance formalities. (If a photocopy is submitted, be sure to present the original when you take the admission procedure.)</p> <p>If your academic transcript is prepared in a foreign language, prepare a Japanese translation in any form, and attach it to the original transcript. Do not write the Japanese translation directly on the original transcript.</p>

③	Diploma (graduation letter), certificate of completion (expected completion) of Master's degree	<p>Your diploma should be prepared by the president of the university you are enrolled in or have graduated from.</p> <p>If you have completed (are expected to complete) the graduate school, submit its certificate of completion (expected completion), too, together with the university diploma, etc.</p> <p>If you submit an application under (2) or (5) of “2. Eligibility for applicants,” submit a document certifying your eligibility.</p> <p>If you submit an application under (7) of “2. Eligibility for applicants,” submit documents certifying your eligibility and offer certificate published by university or the institution outside Japan.</p> <p>Photocopies are not acceptable. If your certificate is unable to be reissued, submission of a photocopy is acceptable. If a photocopy is submitted, be sure to present the original when you take the admission procedure.</p> <p>Be sure to prepare a Japanese translation in any form, and attach it to the original certificate. Do not write the Japanese translation directly on the original certificate.</p>
④	Abstract of the Master's thesis or its alternative document	<p>Submit the abstract of Master's thesis. If the applicants do not have them, submit the alternative documents about research process. About 2 pages of A4 paper.</p>
⑤	Official score of TOEIC, etc. *Photocopy is not acceptable	<p>Submit the original (photocopy is not acceptable) of your official score of TOEIC (Listening & Reading TEST), TOEFL-iBT, or IELTS (academic module) (Official Score for TOEIC Listening & Reading TEST, Test Taker Score Report for TOEFL, Test Report Form for IELTS) that you took after April 1, two years prior to the examination date. (If the examination date is on August 2023, submit scores taken after April 1, 2021; if the examination date is on February 2024, submit scores taken after April 1, 2022.)</p> <p>*If you submit the score of TOEIC taken after April 2023, please contact the Admission Office, Student Affairs Division (e-mail: shingaku@sec.nagoya-cu.ac.jp) before sending your application documents.</p> <p>*Any score reports downloaded at the TOEIC website are not available.</p> <p>*Your official score will not be returned.</p> <p>*Your official score is converted by the math formula prescribed by the Graduate School of Pharmaceutical Sciences to determine your score of the foreign language (English) for use as reference information to determine your admission. If you submit more than one score, the score that is found to be higher after conversion will be adopted.</p> <p>Applicants are desired to have English ability equivalent to or higher than the scores shown below.</p> <p>Note, however, that these scores are not an application requirement. TOEIC: 600, TOEFL-iBT: 62, IELTS: 5.0</p>
⑥	Letter of Acceptance for Examination	<p>[Use the prescribed form of NCU]</p> <p>*Consult with the faculty member in charge of the field of your major beforehand about research planning, etc. before submitting your application.</p> <p>*Submit only your first choice of field.</p>
⑦	Examination fee (30,344 yen)	<p>When paying the examination fee, fill in the transfer request form (prescribed form of NCU) with the required information, and hold it out with 30,344 yen (Examination fee 30,000 yen + Express mail fee to send the admission card 344 yen) to a bank or other finance institution for transfer.</p> <p>Japan Post Bank or Yucho Bank does not accept this transfer. Do not use ATM, etc.; use only a teller for transfer.</p> <p>The bank transfer fee is payable by the applicant.</p> <p>Submit the “Examination Fee Payment Certificate (Slip B)” received from the bank, etc., together with the other application documents. (Do not submit the “Receipt of Transfer Amount (and Transfer Fee) (Slip A),” which should be retained by you.)</p> <p>* The examination fee is not refundable in principle. (Refer to (4) of “12. Cautions.</p>
⑧	Mailing label	<p>[Use the prescribed form of NCU]</p> <p>The mailing label will be used to notify you of the admission decision. Write the proper address and name.</p>

⑨	Residence certificate (only for applicants who have foreign nationality)	To be submitted if you are a foreign national and eligible for residence in Japan. Residence certificate that does not contain the Social Security and Tax Number. If your visa status is for short-term residence, submit a photocopy of the Japan entry visa stamped in your passport If you are residing in a foreign country, submit a photocopy of your passport.
⑩	Document for interview test	<ul style="list-style-type: none"> • Bring the document to the interview test after filling in the required items. • The number of copies necessary will be informed when sending the examination admission card. • Describe the outline of your research contents at the university, graduate school or office currently enrolled. Applicants who are employed or graduates can also describe them at the final academic background. • Describe the academic achievements such as academic conference presentation, academic paper, from the latest one. Applicants who are employed or graduates can also describe them at the final academic background. • You can download the from the website of the University < The University Website > https://www.nagoya-cu.ac.jp/admissions/graduate/phar/index.html
⑪	Envelope to submit the application documents	Fill in the required items on the cover which is designated by the University, and paste the cover on the envelope (240mm×332mm) prepared by yourself. You can download the cover from the website of the University. Enclose the application documents, envelope and send them by registered express mail < The University Website > https://www.nagoya-cu.ac.jp/admissions/graduate/phar/index.html

5. Prior consultation with the applicants with disability

A person with a disability and needs extra care on having an entrance examination and studying has to notify Student Affairs Division.

6. Notice of preliminary examination results

If you wish to submit an application under (6), (7) or (8) of “2. Eligibility for applicants,” you will receive a notice of the results of your preliminary examination of eligibility for applicants by 2 days before the deadline for applications. If you are permitted to take the examination, complete the procedure for application by the prescribed date. If you do not receive the notice by the time specified above, contact the person in charge of entrance examinations, Graduate School of Pharmaceutical Sciences.

7. Date and method of selection for admission

(1) Date, time, subject, etc.

Examination date	Examination time	Examination subject
1st application August 16 (Wed), 2023	10:00 –	Written or oral examination about the major subject, the summary of master’s dissertation or equivalent ※
2nd application January 30 (Tue), 2024	13:30 –	Interview

※We may conduct a test using the web service depending on the circumstances of Coronavirus Disease(COVID-19).

(2) Examination place and meeting place

Graduate School of Pharmaceutical Sciences, Nagoya City University (3-1, Tanabe-dori, Mizuho-ku, Nagoya)

You will receive instructions for the examination together with your examination admission card.

(3) Selection method

Selection is made by comprehensively judging the summary of the master’s dissertation or equivalent, the academic transcript, the official score of TOEIC, etc., and the results of the examination (major subject) and interview.

8. Announcement of application results

【1st application】 August 24 (Thu), 2023 at 10:00

【2nd application】 February 5 (Mon), 2024 at 15:00

The announcement is posted on the bulletin board at the entrance of Graduate School of Pharmaceutical Sciences, NCU, and also communicated to each applicant.

※ We will send important documents that date of procedure and necessary documents are described to the successful examinees, so make sure to check them.

※ If you do not receive them after 1 week from the announcement, please contact Student Affairs Division, Administration Office of NCU.

9. Admission procedure

(1) Date of procedure

【1st application】 Early-September, 2023

【2nd application】 Mid-February, 2024

You will be notified of the specific date together with the announcement of application results.

(2) Details of procedure

The details of the procedure will be notified to you together with the announcement of application results.

(3) Fees payable during the admission procedure

a. Admission fee	Nagoya City residents, etc.	232,000 yen
	Others	332,000 yen

*Students proceeding to the doctor's course after completing the master's course of this graduate school are exempted from paying the admission fee.

b. Disaster and accident insurance for student education and research	2,600 yen
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c. Liability Insurance coupled with "Gakkensai"	1,020 yen
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Note 1: The admission fee should be paid through a financial institution before commencing the admission procedure. **The paid admission fee is not refundable.**

Note 2: "Nagoya City residents, etc." means ① enrolled students or ② their spouse or first-degree family member who can certify by referring to their resident card that they have continuously had an address within Nagoya City at least one year from the date before the date of admission.

Note 3: Amount of the above fee is example of year 2023. Any revisions to the fees upon admission shall become effective immediately

10. Tuition

Annual amount 535,800 yen (1st semester and 2nd semester: 267,900 yen each)

Note 1: After admission, tuition is to be paid twice a year (for the 1st semester and the 2nd semester) (automatic withdrawal from your account).

Note 2: Amount of the Tuition fee above is example of year 2023. If the tuition is revised during your enrollment, the revised tuition will apply.

Note 3: Graduate School of Pharmaceutical Sciences may charge additional cost without any advance notification.

11. Scholarship system

The scholarship loan plan of the Japan Student Services Organization (JASSO) is available to graduate students. Students wishing to use the plan will be referred following a review of academic achievement, research ability, etc., to determine eligibility.

12. Cautions

(1) Applications lacking necessary documents will not be accepted.

(2) Applicants found to have made false statements in their applications may have their admission revoked even after enrollment.

(3) Application documents, etc. will not be returned.

(4) The examination fee (excluding bank transfer fee) is not refundable in principle. However, in any of the following cases, the paid examination fee is refunded. Confirm this on the NCU website.

① The examination fee was transferred twice.

② The application documents were not submitted after the examination fee was transferred (or the

- application was not accepted).
- (5) If your return address changes, please notify the Office of new address immediately.
 - (6) As a rule, double enrollment is prohibited

13. Treatment of your personal information

NCU treats your personal information in accordance with the Act on the Protection of Personal Information of Nagoya City.

- (1) Use of your personal information
 - a. Your name, address and other personal information given in application documents, etc. are used for our operations of selection for admission (e.g., application registration, selection, application result announcement, admission procedure).
 - b. Your personal information used for selection for admission (e.g., academic transcript) may be used as reference material for investigative research and academic research to improve future selection for admission and graduate education. (Investigative research results are announced in such a way that individuals cannot be identified.)
 - c. After you are admitted, your personal information is used for operations related to educational affairs (e.g., enrollment management, schooling guidance), student support (e.g., health control, tuition waiver, application for scholarship, job placement support), and tuition collection.
- (2) Entrustment of operations to external business operators
The operations of (1) above may be entrusted to some external business operators under an agreement with them for proper treatment of personal information.

14. Admission policy

Admission policy of Graduate School of Nagoya City University

Nagoya City University (NCU) aims to be a university in which all citizens feel pride and affinity. In graduate education, based on our recognition that research guidance for graduate students is a challenge in offering research activities. We aim to cultivate researchers and professionals who can gain advanced expertise and an interdisciplinary thinking.

With this philosophy and aim, the graduate school is widely looking for individuals who possess advanced expertise and an eagerness and aptitude for activity both within Japan and abroad, in addition to diverse skills and work experience.

Admission policy of Graduate School of Pharmaceutical Sciences

(1) «Philosophy, Purpose, Educational Goals»

Cooperative Major in Nanopharmaceutical Sciences aims to foster researchers and technical experts who have creative and outstanding ability to execute innovative research in pharmaceutical life sciences, drug discovery science, etc., have a broad knowledge and deep expertise about pharmaceutical sciences and engineering. In addition, we also aim to develop human resources with prominent ability to play an active part in education, public administration, etc. with wide view and high ethics. In order to cultivate these diverse and highly specialized human resources, we welcome following students.

(2) «Profile of students sought»

- Students who are willing to perform cutting-edge research outcomes, to transmit them to the world, and contribute to society.
- Students who are motivated to acquire problem-finding and -solving abilities through the process of publishing research results
- From the point of view of developing diverse human resources, students who have different academic backgrounds and are willing to perform researches in the fusional fields of pharmaceutical sciences and engineering.
- Students who have a strong interest in nanomaterials and nanodevices, and aim to become researchers familiar with both pharmaceutical sciences and engineering.
- From the point of view of developing international human resources, students from overseas who want to perform researches in the fusional fields of pharmaceutical sciences and engineering.

(3) «Contents and level of required knowledge, abilities and skills»

- In addition to the basic ability of the material science and life sciences, advanced knowledge and basic experimental techniques in related fields.
 - In addition to the basic language ability, language skill necessary for preparing research manuscripts, presentations, and discussions at international meetings.
- Content and level of knowledge that should have been acquired

(4) «Selection method»

Students with basic academic skills in materials and life sciences, knowledge and skills in related fields, and necessary language skills will be selected by the following method.

[General selection]

Selection of applicants is based on comprehensive review of the master's thesis abstract, transcripts, examinations (major subjects), foreign language (English) and interviews.

Language skills necessary for research will be evaluated by official scores of foreign language examinations such as TOEIC. In addition to the basic academic skills in materials science and life science required to carry out research, advanced knowledge and skills in related fields will be evaluated by examining the major subjects and a summary of the master's thesis.

In addition, an interview will be conducted to assess whether the applicant meets the requirements of the student profile, including basic academic skills and knowledge, motivation and will for research, as well as a desire to conduct research that integrates pharmaceutical sciences and engineering, a strong interest in nanomaterials and nanodevices, and a desire to become a researcher with expertise in both pharmaceutical sciences and engineering. The selection process is based on a combination of these results and the evaluation of transcripts.

[Special selection for working people]

The selection process is the same as that for the general selection, but in the interview and other tests, we evaluate whether the applicant is a person who, based on his or her work experience at a company or other organization, aspires to conduct fusion research in the doctoral course, wants to return the results of his or her research to society, and aims to acquire advanced academic knowledge and experimental skills as a professional.

Joint graduate school

1. What is a graduate school whose curricula are jointly formulated (joint graduate school)?
It is a graduate school that utilizes a system that enables more than one university to jointly implement curricula and award a degree in their joint names in order to maximize the utilization of educational research resources and promote high-quality educational research that allows for contribution to the vitalization of regions and the initiation of interdisciplinary and advanced fields.
2. Main features of this joint graduate school
 - (1) A degree is awarded in the joint names of NCU and NIT.
 - (2) The student will be enrolled in both NCU and NIT, but mainly in the university at which the full-time faculty member supervising the research (main preceptor) is based, and will be able to receive the same services as other students of the university. The student is also permitted to receive certain services, such as library use, at the other university at which the student is not based. Note, however, due to circumstances at each university, there may be some facilities not accessible to the student.
 - (3) The student is permitted to receive research guidance from a faculty member of the other university at which the student is not based (assistant preceptor).
 - (4) The student attends lectures of the joint graduate school held in NCU and NIT.

Important information

1. About the application-submitted university, the examination-holding university, and the domicile-registered university
If you wish to have as your main preceptor a full-time faculty member based at NCU, submit an application to NCU and take the selective examination at NCU. After enrollment, the university at which you will be based will be NCU, and you will be treated as a student of NCU as to admission procedure, payment of tuition, etc., application for scholarship, etc.
If you wish to have as your main preceptor a full-time faculty member based at NIT, you submit an application to NIT and take the selective examination at NIT.
2. For this cooperative major in nanopharmaceutical sciences, you are unable to apply to both NCU and NIT.

Notifications from NCU in case of emergency

In case of emergency (e.g., occurrence of disaster) or if changes are required to the contents of this application guidebook, students will be notified those changes through the website of NCU. Particularly as the examination day draws near, pay close attention to the website of NCU. Applicants may also be directly contacted. In your application documents, therefore, be sure to provide contact details where you can always be reached.

NCU Website <https://www.nagoya-cu.ac.jp/>

A Ban on smoking in the premises

NCU has banned smoking in the premises. All students are requested to observe this policy, and asked to further cooperate by not smoking on roads and alleys around NCU.

The entrance exam date and method may change depending on the circumstances of Coronavirus Disease (COVID-19).

Students will be notified those changes through the website of NCU
«Notice regarding entrance examination for graduate school».



NCU Website <https://www.nagoya-cu.ac.jp/admissions/graduate/information/index.html>

Outline of Curricula

Division	Class subject	Assigned year	University	Number of credits			Class mode			Faculty member				
				Compulsory	Elective	Free	Lecture	Exercise	Experiment, practice	Professor	Associate prof.	Instructor	Assistant prof.	Assistant
Major Core Subject	Introduction to Innovative Therapeutics Science 1	1-1st semester	NCU		1		○			2				
	Introduction to Innovative Therapeutics Science 2	1-1st semester	NIT		1		○			2				
	Introduction to Drug Delivery and Biopharmaceutics 1	1-1st semester	NCU		1		○			1				
	Introduction to Drug Delivery and Biopharmaceutics 2	1-1st semester	NIT		1		○			1	1			
	Introduction to Nanoengineering for Medicine 1	1-1st semester	NCU		1		○			1				
	Introduction to Nanoengineering for Medicine 2	1-1st semester	NIT		1		○			2				
	Exchange Training between Pharmacy and Engineering	1-2nd semester	NCU, NIT	2				○		9	5	2	1	
	Subtotal (7 subjects)	—		2	6			—		9	5	2	1	
Specialized Subject	Functional Drug Development Sciences Discipline	Innovative Drug Discovery 1	2-2nd semester	NCU		1		○			1			
		Innovative Drug Discovery 2	2-2nd semester	NCU		1		○			1			
		Advanced Organic Synthesis	2-1st semester	NIT		2		○			1			
		Advanced Study on Innovative Therapeutics Science 1	2-1st semester	NCU, NIT	2				○		4	1	2	
		Advanced Study on Innovative Therapeutics Science 2	2-2nd semester	NCU, NIT	2				○		4	1	2	
		Advanced Study on Innovative Therapeutics Science 3	3-1st semester	NCU, NIT	2				○		4	1	2	
		Advanced Study on Innovative Therapeutics Science 4	3-2nd semester	NCU, NIT	2				○		4	1	2	
		Subtotal (6 subjects)	—		8	4			—		4	1	2	

Division	Class subject	Assigned year	University	Number of credits			Class mode			Faculty member					
				Compulsory	Elective	Free	Lecture	Exercise	Experiment, practice	Professor	Associate prof.	Instructor	Assistant prof.	Assistant	
Specialized Subject	Drug Delivery and Dynamic Science Discipline	Advanced Pharmaceutics and Drug Delivery1	NCU		1		○			1					
		Advanced Pharmaceutics and Drug Delivery2			1		○		1						
		Molecular Designs for Life Science	NIT		2		○			1					
		Advanced Study on Drug Delivery and Biopharmaceutics 1	NCU, NIT	2			○		2	2		1			
		Advanced Study on Drug Delivery and Biopharmaceutics 2		2			○		2	2		1			
		Advanced Study on Drug Delivery and Biopharmaceutics 3	NCU, NIT	2			○		2	2		1			
	Advanced Study on Drug Delivery and Biopharmaceutics 4	NCU, NIT	2			○		3	2		1				
	Subtotal (6 subjects)		—		8	4		—			3	2		1	
	Drug-Aid Nanoengineering Discipline	Soft Matter Physics and Chemistry for Medicine 1	NCU		1		○			1					
		Soft Matter Physics and Chemistry for Medicine 2			1		○		1						
		Micro-nano Biomechanics	NIT		2		○			1					
		Advanced Study on Nanoengineering for Medicine 1	NCU, NIT	2			○		3	2					
		Advanced Study on Nanoengineering for Medicine 2		2			○		3	2					
		Advanced Study on Nanoengineering for Medicine 3	NCU, NIT	2			○		3	2					
Advanced Study on Nanoengineering for Medicine 4		NCU, NIT	2			○		3	2						
Subtotal (6 subjects)		—		8	4		—			3	2				

Division	Class subject	Assigned year	University	Number of credits			Class mode			Faculty member				
				Compulsory	Elective	Free	Lecture	Exercise	Experiment, practice	Professor	Associate prof.	Instructor	Assistant prof.	Assistant
Interdisciplinary subject	Special Topics in Chemical Biology: Chemical Sensors & Devices	2-2nd semester	NCU		1		○							
	Advanced Biopharmaceutics and Cellular Biophysics (1, 2)	1-2nd semester	NCU		2		○							
	Advanced Biological Chemistry and Molecular Biology (1, 2)	2-1st semester	NCU		2		○							
	Advanced Molecular and Cellular Pharmacology and Neuropharmacology (1, 2)	1-1st semester	NCU		2		○							
	Advanced Catalyst Nano Technology	1-1st semester	NIT		2		○			1				
	Medical Nanotechnology	1-1st semester	NIT		2		○			1				
	Advanced Characterization of Materials for Nanopharmaceutical Sciences(1,2)	2-1st semester	NIT		2		○							
	Advanced Pharmaceutical Sciences	2-2nd semester	NIT		1		○			1				
	Bioethics in Research and Practice	1-1st semester	NCU		1		○							
	Advanced Course on Pharmaceutical Industry	1-1st semester	NCU		1		○							
	Advanced Fusion Sciences of Pharmaceutics and Engineering	2-2nd semester	NCU		1		○			1				
	Advanced Course on Contemporary Intellectual Property	1-2nd semester	NIT		2		○							
	Technology internship	1-1st and 2nd semesters	NCU, NIT		2			○		9	5	2	1	
	Technology internship	1-1st and 2nd semesters	NCU, NIT		2			○		9	5	2	1	
Subtotal (14subjects)		—		0	23		—			9	5	2	1	
Total (39subjects)		—		26	41					9	5	2	1	

Degree or title	Doctor (Nanomedicine science)	Field of degree or subject		Pharmaceutical- and engineering-relevant	
Graduation requirements and how to take subjects		University in charge	Number of offered credits (requisite)	Class term, etc.	
Take 4 credits of non-major subjects from the major core subjects, 4 or more credits of elective subjects from the specialized subjects, and 10 or more credits of subjects offered by the partnership university to make a total of 26 or more credits. For “Pharmaceutical-Engineering Cooperative Special Practice,” take subjects offered by the partner university.		NCU	49 (28)	Division of an academic year by term	2 terms
		NIT	49 (28)	Duration per term of an scholastic year	15 weeks
				Class hours per period	90 minutes

Full-Time Faculty Members

(As of Apr. 2023)

Faculty member in charge				Assigned subject	Research theme	
Nagoya City University	Functional Drug Development	Professor	Hidetoshi Hayashi	Doctor of pharmacology	Special Study of Functional Drug Development Next-Generation Drug Development Sciences (1, 2) Introduction to Functional Drug Development Study 1 Pharmaceutical-Engineering Cooperative Special Practice Technology Internship Global Presentation	1. Development of a medical treatment for adult diseases and immunological diseases targeting at cellular stress 2. Development of a new molecular targeting treatment for intractable cancer 3. Clarification of the molecular mechanism of cancer metastasis, and development of a new medical treatment for cancer metastasis 4. Clarification of a new expression control mechanism for drug-metabolizing enzyme, and its application 5. Chemistry of enzyme and enzyme models 6. Development of a functional molecule useful for clarification of biotic functions 7. Rational design, synthesis and activity evaluation of drug lead compounds 8. Development of functional molecules based on a new concept
		Professor	Noaki Umezawwa	Doctor (Pharmaceutical sciences)		
		Associate professor	Yasumichi Inoue	Doctor (Pharmaceutical sciences)		
		Research Associate	Chiharu Miyajima	Doctor (Pharmaceutical sciences)		
		Research Associate	Yousuke Hisamatsu	Doctor (Pharmaceutical sciences)		
	Deliver y and Dynamic Science	Professor	Tetsuya Ozeki	Doctor (Pharmaceutical sciences)	Special Study of Drug Delivery and Dynamic Science Formulation Design and Drug Delivery	1. A nanotargeting drug delivery system (DDS) for administration to brain cancer and various carcinomas

		Instructor	Tatsuaki Tagami	Doctor (Pharmaceutical sciences)	Control Study (1, 2) Introduction to Drug Delivery and Dynamic Sciences 1 Pharmaceutical-Engineering Cooperative Special Practice Technology Internship Global Presentation	2. DDS for administration of fine particles to lungs 3. Nanocarrier as DDS (liposome, gold colloid, etc.) 4. Formulation design for low-solubility, low- absorbability medical substances
		Research Associate	Koki Ogawa	Doctor (Pharmaceutical sciences)		
	Drug-Aid Nanoengineering	Professor	Jyunpei Yamanaka	Doctor (Engineering)	Special Study of Drug-Aid Nanoengineering Formulation Design and Drug Delivery Control Study (1, 2) Introduction to Drug-Aid Nanoengineering 1 Pharmaceutical-Engineering Cooperative Special Practice Technology Internship Global Presentation	1. Study of physical properties of soft matter (colloid, high molecule, gel, etc.), and application of the soft matter to the medical drug field 2. Study of rule structural formation of colloid series, and application of materials 3. Computation simulation of soft matter ordering process 4. Synthesis of functional particles, such as particles containing quantum dots, and its application
		Associate professor	Tohru Okuzono	Doctor (Science)		
		Instructor	Akiko Toyotama	Doctor (Pharmaceutical sciences)		

Faculty member in charge			
Nagoya Institute of Technology	Functional Drug Development	Professor	Norio Shibata
		Professor	Tomohiro Ozawa
	Drug Delivery and Dynamic Science	Professor	Takehisa Dewa
		Associate professor	Toshihisa Mizuno
	Drug-Aid Nanoengineering	Professor	Shinya Tsukiji
		Professor	Masanori Nakamura