# Graduate School of Horticulture Division of Environment and Horticulture International Course of Environmental Horticulture (Doctoral Program)

**Student Application Requirements** 

2025/2026

千 葉 大 学 Chiba University

## Graduate School of Horticulture (Doctoral Program) Division of Environment and Horticulture International Course of Environmental Horticulture

#### October 2025 and April 2026 Admission Schedule

	Application for	Application for	Examinations	Announcement
	Qualification	Admission	<b>※</b> 1	of Exam Result
for enrollment in				
October 2025	May 20(Tue.)	June 11 (Wed.)	August 1(Fri.)	September 3
for enrollment in	- 21(Wed.)	- 13(Fri.)	August 1(FII.)	(Wed.)
April 2026				

<sup>\*1</sup> Mext Scholarship students, double degree program students, etc. may do so online prior to this date.

<sup>※2</sup> The application process for the Horticultural Science course and the Landscape Science course is defined in separate guidelines.

1. Division, Course, and Number of Spaces Available

		Available spaces	
Division	Course	for enrollment in October 2025	for enrollment in April 2026
	Course of Horticultural Science	(	10
Environment and	Course of Landscape	0	18
Horticulture	International Course of Environmental	0	A form
	Horticulture	8	A few

- Note 1. Potential applicants include future graduates from Chiba University's Master's Program who wish to continue their research.
- Note 2. Before applying to the Doctoral Program of Graduate School of Horticulture, please contact the academic advisor in "2.List of Academic Advisers, P.12-18" that you wish to be supervised, and inquire about the content, etc., of the related education and research so as to confirm your choice.
- Note 3 The International Course of Environmental Horticulture is designed for international students from overseas, including privately financed students, and the curriculum consist of the courses of Horticaltural Science and Landscape taught in English. Japanese students may also apply for this course, but please note that the courses must be basically taken in English.
  - Please note that the Horticultural Science Course and the Landscape Science Course will be offered under different guidelines.
- Note 4 The number of students accepted in the October entrance examination for the International Course of Environmental Horticulture is approximate.

#### 2. Required Qualifications

The applicant without double degree program must meet one of the following qualifications (1) through (8). The applicant for the double degree program must meet both (9) and (10).

September 2025 deadline, marked with an asterisk, in the following (1) - (8) concerns applicants who will enter the graduate school in October 2025. For applicants proposing to enter in April 2026 the deadline is March 2026.

- (1) The applicant has a master's degree or a professional degree, or expects to obtain one by <u>September 2025\*</u>.
- (2) In a foreign country, the applicant has been granted, or expects to be granted by <u>September 2025\*</u>, a degree corresponding to a master's degree or a professional degree.
- (3) The applicant, by reviewing, in Japan, the subjects through correspondence conducted by a foreign school, has been granted, or expects to be granted by <u>September 2025\*</u>, a degree corresponding to a master's degree or a professional degree.
- (4) The applicant has completed a foreign graduate school's course, conducted at an educational institution in Japan that is an accredited part of the educational system of the related foreign country and is also recognized by Japan's Minister of Education, Culture, Sports, Science and Technology, and has consequently been granted a degree corresponding to a master's degree or a professional degree or expects to receive such a degree by September 2025\*.
- (5) The applicant has been granted, or expects to be granted by <u>September 2025\*</u>, a degree corresponding to a master's degree, through course completion at the United Nations University as prescribed in Article 1-(2) of 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), which was established under the December 11, 1972 resolution of the General Assembly of the United Nations.
- (6) The applicant has completed a course study at a school outside of Japan, in an educational institution as designated above in (4) of the required qualifications, or in the United Nations University, has passed the examination and screening equivalent to those prescribed in Article 16-2 of the Standards for Establishment of Graduate Schools, and has been recognized as having academic abilities at least equivalent to that of a Master's degree holder, or is expected to be recognized by September 2025\* and has been recognized by this school as having academic abilities at least equivalent to that of a Master's degree holder.

- (7) The applicant meets either of the following qualifications designated in Ministry of Education Bulletin No. 118 of 1989.
  - ① After graduating from a university, the applicant engaged in at least two years of research at a university, research center, etc. And based on the resulting research achievements, etc., has been recognized, by the graduate school of science in question, as having scholarly attainments that are at least the equivalent of those of individuals who have a master's degree or a professional degree.
  - ② After completing a 16-year course of study in the educational institutions of a foreign country, or after reviewing, in Japan, the subjects through correspondence conducted by a foreign school and thereby completing a 16-year course of study in the educational institutions of the related foreign country, the applicant engaged in at least two years of research at a university, research center, etc., and, based on the resulting research achievements, etc., has been recognized, by the graduate school of science in question, as having scholarly attainments that are at least the equivalent of those of individuals who have a master's degree or a professional degree.
- (8) Based on an examination, conducted by the Graduate School of Horticulture, of the applicant's qualifications to enter this school, the applicant has been judged to have scholastic attainments that are at least the equivalent of those of individuals with a master's degree or a professional degree, and is also 24 years of age or will turn 24 by September 2025\*.
  - (Note) Regarding Qualifications (5) (8) please see "Procedure for Verifying Qualification of Applicants" on page 10.

#### [Application Requirements for the Double Degree Program]

- (9) The applicants who are enrolled in a universities that have a double degree agreement with Graduaete School of Chiba University and are recommended by that universities.
  The partner universities of the Double Degree Program are Mahidol University Faculty of Science (Thailand), University of Padjadjaran (Indonesia), King mongkut's University of technology Thonburi, School of bioresources and technology (Thailand), Mae Fah Luang University (Thailand), College of
- (10) The applicants must have the language skills necessary to receive educational and research guidance.

#### 3. Submittal of Application

#### Period: <u>June 11 (Wed.)- June 13 (Fri.), 2025, by 4:00 PM.</u>

Horticulture of Nanjing Agricultural University (China).

#### Please mail in your application using simplified registered mail to the following address.

Chiba University, Faculty of Horticulture,

Matsudo Area Administration Division, Student Affairs Unit

648 Matsudo, Matsudo City, Chiba Prefecture 271-8510

### \*If you want to hand in your application at Faculty of Horticulture, please send e-mail as when you want to do in advance.

If you are going to ask to be recognized as qualified to apply based on Qualification (5) - (8), please see

"Procedure for Verifying Qualification of Applicants" on page 10.

If the submitted documents are incomplete, the application may not be accepted. If applying from outside Japan, please notify the Matsudo Area Administration Division's Student Affairs Unit in advance that you are going to submit an application.

#### [Important]

Each academic advisors accept a maximum of three Doctoral program students per year.

#### 4. Documents to Be Submitted

Individuals wishing to apply should gather together the following documents and then submit them by the specified time. (Foreign applicants may prepare documents in English.)

Please fill out the forms prescribed by Chiba University and print them out yourself.

#### (1) Application Documents

Document	Remarks
① Application for Admission	Forms prescribed by Chiba University.
(Continuation), Photo Card,	* The application form should be printed on both sides.
Admission Ticket for	
Examinations	
② Transcript of Grades for the	A sealed transcript issued by the president or academic dean of the university
Master's Program	from whose graduate program the applicant graduated or expects to graduate.
③ Certificate of Master's	A certificate prepared by the president or academic dean of the university from
Degree (or Certificate of	whose graduate program the applicant graduated or expects to graduate.
Expected Master's Degree)	Applicants who submit a Certificate of Expected Master's Degree must submit a
	Certificate of Master's Degree following completion of the master's program.
④ Recommendation Letter	A document prepared by a faculty member who is currently supervising or had
	supervised you at your current or previous university, or by its president or dean
	of the graduate school, etc
	Any format is acceptable.
⑤ Master's Thesis, etc.	A. Applicants with a master's degree should provide a copy of their master's
(Applicants continuing from	thesis and an abstract of it, in 1,300 words or less, written on the form
Chiba University's Master's	prescribed by Chiba University.
<b>Program should submit the</b>	B. Other applicants should provide a research progress report (1,300 words or
documents mentioned in "B.")	less, written on the form prescribed by Chiba University). If they have any
	research publications or other such documents to their credit, they should
	also attach a record of research achievements (prepared using the form
	prescribed by Chiba University).
6 Research Proposal	Please enter this on the form prescribed by Chiba University.
© Copy of either	The score of TOEIC L&R-IP or TOEFL-ITP held in Chiba University is
certificate below	acceptable for the graduates of Chiba University only.
TOFICI OF OF 1	For TOEIC L&R, TOEFL, IELTS, etc., official certificates(Digital Official Score
• TOEIC L&R Official	Certificate is acceptable.) and test taker score sheets taken after August 2023 will be valid.
Score Certificate	be valid.
• TOEFL Examinee's	Disease submit TOPIC I &D ID TOPPI ITD and other seems at the time of
Score Record	Please submit TOEIC L&R -IP, TOEFL-ITP, and other scores at the time of application.
• IELTS Score Sheet	TOEFL-ITP Home Edition is also available.
(Note)	TOLT L-TTT TIONIC EQUION IS AISO AVAILABLE.
Mext scholarship program	(Note)
students, who have graduated	If you are unable to provide one of the three types of English proficiency test
from foreign universities or JICA	certificates listed on the left, a certificate with an equivalent score will be
tainees are exempt.	accepted.
	However, from the next entrance examination, only the three English
	proficiency test certificates listed on the left will be valid.
	1
<u> </u>	

Document	Remarks
®Examination Fee: 30,000 yen	Please make sure to pay the application fee according to the following procedures before submitting your application.
(Note) Applicants continuing	(1) Payment period From Monday, June 2, 2025 to Friday, June 13, 2025
from Chiba University's	(2) Payment method
Master's Program, Japanese	(2) Payment method Please use the "E-Payment Service" and pay by convenience store, Pay-easy, net
Government-sponsored foreign	banking, or credit card.
exchange students and candidates for Double Degree Program need not pay an Examination Fee.	Please refer to the attached "How to Pay the Chiba University Application Fee" and "User's Guide" on the E-Payment Service website for the payment procedure. If you have any questions, please check the FAQ on the website and contact the E-Payment Service Support Center.
Examination Fee.	*Administrative fees are to be paid by the applicant.
	(3) Procedures after payment Please submit the certificate of receipt by affixing it to the back of the application form. The certificate of receipt can be obtained as follows.  In the case of payment at a convenience store, please pick up the certificate at the store.  In the case of payment by Pay-easy, Internet banking, or credit card  →Please print out a copy from the "Application Details" page on the E-Payment Service Web site.
	(4) In principle, once the application fee has been paid, it is non-refundable. However, the application fee will be refunded to applicants who have transferred the fee in error and have not applied, and who have completed the prescribed refund procedures. For details on the refund procedure, please check with the Student Affairs Office, Matsudo Campus Administration Division. The deadline for refund procedures is March 31, 2026.
	E-payment service (https://e-shiharai.net/) This is a service that allows you to pay the examination fee via the Internet by selecting your preferred payment method from convenience stores, pay-as-you-go, net banking, or credit card.  Prior application to this site is required.  Available payment methods vary according to university.  For applicants from overseas  Applicants residing outside of Japan can only use credit cards.  After paying by credit card, please print out the receipt from the "Application Details" page of the E-Payment Service Web site and attach it to the back of the application form.  English version of the website (https://e-shiharai.net/ecard/) This is the English version of the website for international students. This guide is for credit card payment only. After payment, please submit the printed "Result Page" with your application documents.
9 3 Return Envelopes	Please prepare two "長形 3 号封筒" envelopes (for sending the Admission
	Ticket for Examinations and Notification of Acceptance) and one "角形 2 号
(Note) Applicants living abroad	封筒" envelope (for sending the Enrollment Procedure Documents), with your
are not required to submit this	name and address in the address field on it. In addition, please affix 460-yen
form.	postage stamp on one "長形 3 号封筒" envelope.
Document	Remarks
(II) Miscellaneous	For applicants who wish to remain employed while participating in the Doctoral Program, it is desirable that they submit a Permission to Take Examinations (a form prescribed by Chiba University) from the head of their unit at work.
L	rem presented of omes on versity) from the float of their time at work.

In addition to the documents mentioned above, foreign applicants are required to submit the following			
documents.			
① Curriculum Vitae	Forms prescribed by Chiba University.		
② A Copy of the Certificate of	This is a document issued by the city, ward, town or village in which the applicant		
Residence	resides. It contains the applicant's residence qualifications and period of		
	residence. If you haven't registered, please submit a copy of your passport (the		
	part that shows your name, age, sex and residence qualifications, and the part with		
	your Japanese visa).		

#### (2) Necessary Documents on the Day of Examinations

Document	Remarks
Presentation materials for oral interview	Since the oral interview will be presentation style, please prepare your presentation materials in PowerPoint or other formats and submit them to both the
	Academic Affairs Section and your academic advisor by e-mail before the day of the examination. (For details, please refer to "5. Selection Process, Examinations,
	and Examination Date, Time and Place".)

#### 5. Selection Process, Examinations, and Examination Date, Time and Place

#### O General Applicants and Applicants Continuing from Chiba University's Master's Program

#### (1) Selection Process

Applicants will be selected based on an oral interview and academic transcripts.

#### (2) Oral interview

The oral examination will confirm the applicant's master's thesis, research plan, and English language skills, etc.

- \*The time of oral interview will depend on applicants. So please ask your academic advisor you apply for. A standard: 30-minute presentation (on master's thesis, research plan, etc. followed by Q&A session)
- \*Presentation can be made by Power Point, board, or others.

You can use the PC and the projector prepared at the interview room if you are going to use Power Point. The OS of the PC is Windows10, and the software is Microsoft Office 2016 (Word/ Excel/ Power Point), so please check the compatibility before the examination. (You can use your own PC for the presentation.)

#### (3) Admission criteria

Applicants will pass the examination in the order of their total scores in the examination subjects. If the score is less than 60, the applicant may not pass it. In addition, the maximum number of students that can be accepted within a fiscal year is three students per academic advisor.

#### (4) Examination Date and Time

Date	Examination Subject	Time
August 1(Fri.), 2025 *Dates of face-to-face examinations for applicants who are in Japan.	Oral Interview	10:00 AM —  *The time of starting will be different for each applicants. The time will be announced by the examination voucher, we will sent.  *For Mext Scholarship students living abroad, double degree students, etc., the examination may be conducted online before this date.

#### (5) Place of Examinations

Faculty of Horticulture, Chiba University

<sup>\*</sup>The evaluation will be made on a 100-point scale.

#### (6) Pre-arrival Examinations

Applicants who are selected as MEXT (or comparable to MEXT) scholarship students, trainees from JICA and candidates for Double Degree Program can take Oral interview via Internet. In this case, please offer to Student Affairs Unit from May 20 (Tue.) to 21 (Wed.), 2025.

- \*The applicants may be required some documents about them.
- \* Trainees from JICA and candidates for Double Degree Program may take interview beforehand at the University or other places applicants belong to.
- (cf. MEXT scholarship students 147,000 JPY/m, The Enrollment Fee and Tuition are waived)

#### 6. Matters to Heed

- (1) Necessary information about the Examinations will be posted at 10:00 AM on July.31 (Thu.), 2025 on the notice board of the Faculty of Horticulture. (Individuals who, because they live at a distance from campus or for some other reason, are unable to come to campus on July 31 (Thu.) should come early on the following day (examination day) and check the information.)
- (2) Please be sure to have your Admission Ticket for Examinations with you during examination hours.
- (3) Changing the contents of submitted documents following the completion of application procedures will not be allowed.
- (4) Application documents will not be returned.
- (5) Once it is paid, the Examination Fee will not be refunded under any circumstances. It will be, however, refunded to the applicants who paid it by mistake, and besides, didn't apply for the admission, in full if they finish the prescribed procedures for the refund by March 31 (Tue.), 2026. For details, please contact the Matsudo Area Administration Division.
- (6) In addition to being used for selecting applicants, personal information collected in the applicant selection process may be used for such purposes as managerial and administrative activities, academic guidance activities, and activities related to research and study of applicant selection methods.
- (7) Offers of admission may be withdrawn if the application documents are found to be false or contain false information.

#### 7. Advanced Consultation for Applicants with Physical or Other Disabilities

If applicants with physical, mental or other disabilities etc. need their condition to be taken into consideration for taking the entrance examination or for taking courses and study after enrollment, they need to apply for advance consultation before the admission application.

- (1) Required Documents
  - ① Application form for advance consultation;
  - ② which is obtainable from Matsudo Area Administration Division, Student Affairs Unit Medical certificate issued by a doctor etc.; explaining the type and degree of disability, and also any specific treatment needed
- (2) Application Deadline: 5:00 PM, May 21 (Wed.), 2025
- (3) Contact & Application Submission: Matsudo Area Administration Division, Student Affairs Unit
- (4) Consideration for Advanced Consultation: The university will consider based on the documents submitted above. Please note that applicants, the applicants' guarantor, or the last university attended, may be contacted regarding the application.

#### 8. Announcement of Examination Results

Time: 1:00 PM, September 3 (Wed.), 2025 (tentative)

Place: The Examination Results will be posted on the notice board of the Faculty of Horticulture and on the website of the Faculty of Horticulture. The notice board will be posted until September 10.

Note: Following the announcement of the examination results, applicants who passed the examination will be sent a notification to that effect by express simplified registered mail. Please understand that telephone and E-mail inquiries cannot be answered, even if they are from the applicant.

#### 9. Procedures for entering the course

Chiba University has introduced the "Entrance Procedures System". For the convenience of successful applicants, the system eliminates the need to visit the university.

The system eliminates the need for applicants to come to the university, and payment of the entrance fee can be made by credit card or at a convenience store.

The admission fee can be paid by credit card or at a convenience store. Details of the "Web Enrollment Procedures System" and enrollment procedures will be posted on the Chiba University website, and information on the procedures will be sent to successful applicants with their acceptance letters. Please note that failure to complete the admission procedures will be considered as a refusal of admission.

#### (1) Enrollment procedures Date

[Enrollment in October 2025]

Entrance procedures are handled online by the entrance procedures system.

The entrance procedures must be completed by September 17 (Wed.), 2025

#### [Enrollment in April 2026]

Entrance procedures are handled online by the entrance procedures system.

The entrance procedures must be completed by March 25(Wed.), 2026.

#### (2) Fees Required at Enrollment Time and Other Matters

- ①Enrollment Fee: 282,000 yen
- ②Tuition: 321,480 yen (642,960 yen per year)
  - \*Enrollment fees are not required for students ,who have been the Master's Program students of Chiba University until right before.
  - \*Tuition and enrollment fees are not required for Mext Scholarship students and double-degree candidates.

#### [Enrollment in October 2025]

Please pay the tuition for fall semester in November and for spring semester in April by direct debit. The details will be announced at enrollment procedure. The tuition is 321,480 yen (Total tuition for an year: 642,960 yen). Direct debit of the tuition for fall semester will be in October from the second year of enrollment.

#### [Enrollment in April 2026]

Please pay the tuition for spring semester in May and for fall semester in October by direct debit. The details will be announced at enrollment procedure. The tuition is 321,480 yen (Total tuition for an year: 642,960 yen). Direct debit of the tuition for spring semester will be in April from the second year of enrollment.

- (Note) There is a system by which the Enrollment Fee and Tuition may be waived. For details, please visit the website of the Chiba University
  - (https://www.chiba-u.ac.jp/international/isd/en/isd/index.html).
  - ③Premium for Personal Accident Insurance for Students Pursuing Education and Research: 3,620 yen (covering 3 years). This is required of all students.

(Compensation is provided for the injuries resulting from accidents and for the damages which students cause to third parties or third parties' property in case the accidents occur during courses, school events, extracurricular activities, or travel to and from school. Should the insurance premiums be revised, the new insurance premiums, will go into effect as of the time of the revision.)

#### 10. Night Lecture Program

Students in the Graduate School of Horticulture's Doctoral Program may, if it is deemed particularly necessary for their education, take lectures and conduct research at night or at other appropriate times.

Applicants wishing such an arrangement should consult in advance with your academic advisor and Student Affairs Unit. In addition, please indicate this in your application.

#### 11. Early Completion

As a rule, the requirements for completing the Doctoral Program are that the student be enrolled for at least three years, obtain the prescribed number of units, receive the required research guidance, and then pass both a doctoral dissertation review and a final examination. However, students who earn exceptional grades while enrolled may complete the program in one year. However, students who completed the Master's Program early will require two years to complete the Doctoral Program.

#### 12. System for Long-Term Completion

For individuals who, because they are employed, etc., will be restricted in the number of units that they can obtain, and in the time that they can devote to receiving research guidance, over the course of a year or semester, and who therefore believe that they cannot complete this Program unless they remain in it for longer than the standard number of years required to complete it (three years), there is a system whereby they can obtain a degree if they apply for an extension, are judged by the university to merit it, and then methodically complete the Program over a period of up to six years.

The tuition of individuals thus recognized as long-term students shall be handled as follows: the total amount of tuition for the three years (six semesters) usually required to complete the Program will be divided by the number of semesters that the student will remain in the Program and then paid in installments.

Applicants wishing such an arrangement should consult in advance with your academic advisor and Student Affairs Unit. In addition, please indicate this in your application.

#### 13. About the Providing of Personal Information Related to the Examinations

Personal information regarding this examination will be provided only to unsuccessful applicants from May 7(Thu.), 2026 to July 31 (Fri.), 2026, upon request of the applicant. However, the Admission Ticket for Examinations shall be necessary to obtain it. Therefore, please keep the ticket in a safe place.

#### 14. Security Export Control at Chiba University

Based on "the Foreign Exchange and Foreign Trade Act", Chiba University established "the Security Export Control Regulations of National University Corporation Chiba University" and is conducting rigid examinations before accepting students. Desired research activities may be restricted when they are applicable to the regulations.

#### 15. Contact Information for Submitting Documents and Making Inquiries

Chiba University, Faculty of Horticulture,

Matsudo Area Administration Division, Student Affairs Unit

648 Matsudo, Matsudo City, Chiba Prefecture 271-8510

Phone: (047) 308-8712, -8714

E-mail: engei-daigakuin@office.chiba-u.jp

Graduate School of Horticulture website: https://www.h.chiba-u.jp/

#### Procedure for Verifying Qualification of Applicants

Whether applicants applying based on Qualification (5) - (8) on page 2-3 are qualified to take the entrance examinations will be judged based on the documents listed below.

#### (1) Documents to Be Submitted

Document	Remarks
①Request for Recognition of Qualification	Forms prescribed by Chiba University.
to Take Entrance Examinations	
②Record of Research Achievements	Forms prescribed by Chiba University.
③Transcript of Grades	Prepared by the president of the school from which the applicant lastly graduated.
4 Certificate of Graduation	Prepared by the president of the school from which the applicant graduated last.
⑤Letter of Recommendation	If the applicant is employed, a letter from an individual who is in a supervisory
position at the workplace and knows the applicant well may be used. Other	
	letter of self-recommendation is acceptable. The form to be used is optional.
Additional Document	This should be a document that can be used for purposes of assessing the applicant,
	such as a scientific paper or something comparable.

- Before applying, the applicant should confirm these requirements with the Matsudo Area Administration Division.
- Should the Graduate School of Horticulture deem it necessary, it may ask the applicant to submit other documents, such as a certificate of research progress.

#### (2) Submittal Period

May 20 (Tue.) – May 21 (Wed.), 2026, by 4:00 PM. Submittal hours: 9:00 – 11:30 AM, 1:30 – 4:30 PM

Please mail in your application using simplified registered mail to the following address.

Chiba University, Faculty of Horticulture,

Matsudo Area Administration Division, Student Affairs Unit

648 Matsudo, Matsudo City, Chiba Prefecture 271-8510

If you want to hand in your application at Faculty of Horticulture, please send e-mail as when you want to do in advance.

- (3) Applicants will be notified by mail of the decision whether to recognize their qualification.
- (4) Contact Information for Submitting Documents and Making Inquiries

Chiba University, Faculty of Horticulture,

Matsudo Area Administration Division, Student Affairs Unit

648 Matsudo, Matsudo City, Chiba Prefecture 271-8510

Phone: (047) 308-8712, -8714

E-mail: engei-daigakuin@office.chiba-u.jp

#### 3 policies in Graduate School of Horticulture (Doctoral Course) Diploma Policy 1. The spirit of freedom and independence Individuals should be able to establish their own research theme and conduct independent research activities as researchers or university faculty members in Horticulture and Landscape Architecture, or to lead as members of management in research or administrative organizations involved with Horticulture and Landscape Architecture, while acting autonomously and simultaneously developing their own research ethics with a sense of scientific responsibility towards society. 2. Involvement in society from a global perspective Individuals should be able to establish their own research theme, and conduct independent research and development through cooperation with people in societies inside and outside Japan, and to publish the results internationally and across disciplines. Moreover, individuals should acquire an understanding of the diverse cultures and histories which will provide a foundation for their future roles as higher educators and researchers, or as leaders of domestic and foreign institutions, to contribute to the sustainable development of both the global society and the local community. 3. Specialized knowledge, skills and abilities Being erudite and richly creative in their research and development abilities related to Horticulture and Landscape Architecture, individuals should be able to contribute new insights and values. Moreover, with their wide-ranging specialized knowledge and their ability to conduct research, they should be able to plan and manage advanced research and development projects. 4. Excellent problem-solving skills Individuals, using their ability to discover issues in Horticulture and Landscape Architecture and their extensive learning and knowledge in specialized and related fields, should be able to cooperate and work together with others to develop new insights and values that support our knowledge-based society. Curriculum 1. Uphold a spirit of freedom and independence Policy 1. The program offers Managing Technology in Environmental Horticulture and Entrepreneurship for Horticulture as basic courses for cultivating knowledge of basic ethics, attitudes and methodology required of researchers, leaders in higher education, and managers of organizations engaged in horticulture and landscape architecture. The program also offers a teaching fellow program and a tutoring system for cultivating leadership skills and providing career and education support. 2. To engage with society from a global perspective 2. To foster the development of human resources who are capable of engaging in autonomous research and development and disseminating the results internationally and in an interdisciplinary manner, the program offers seminar-style courses in the international deployment and management of academic assets as basic courses. 3. To acquire specialized knowledge, techniques and skills 3. To foster the development of human resources with advanced skills in research and development and a wealth of knowledge in horticulture and landscape architecture, the program offers a broad range of specialized courses which allow students to study courses required for research autonomously. 4. To develop high problem-solving skills 4. The program ensures that students have adequate research time to explore new issues in horticulture and landscape architecture and develop advanced problem-solving skills that will create new knowledge and value. The program also provides opportunities for engaging in joint research through the Seminar for Multidisciplinary Industrial Sciences and special seminars, and appropriate individual guidance through graduate seminars. 5. For rigorous evaluation of academic outcomes · earning outcomes will be rigorously and fairly evaluated based on the level of achievement of each class objective presented in the syllabus, etc. in advance. Courses will be graded according to the following appropriate evaluation methods according to their characteristics. • Lecture courses are evaluated on the level of achievement by examinations, reports, reaction papers, · Experiments, practical training, and exercises are evaluated by examinations, reports, oral presentations, and practical skills. The dissertation review criteria and methods will be clearly stated in advance, and a review system will be established based on these criteria and methods, and the dissertation review and final examination will be conducted in a strict and fair manner. Admission

landscape architecture and intend to study a related field in depth

Policy

1. Applicants with an understanding of the traditions of the Graduate School of Horticulture, which

forms the basis for Diploma Policy 1, who have a strong interest in horticultural science and

- 2. Applicants with basic competence in English presentations and academic writing, which forms the basis for Diploma Policy 2.
- 3. Applicants who have acquired the knowledge, techniques and skills in horticultural science and landscape architecture, which form the foundation for Diploma Policy 3.
- 4. Applicants with research planning skills, which form the basis for Diploma Policy 4

#### Overview of Chiba University

On May 31, 1949, Chiba University was founded as a national university under the new national school system by unifying various schools of the old national school system, including what were then the Chiba Medical School and its affiliated Medical Department and Pharmaceutical Department, Chiba Normal School, Chiba Youth Normal School, Tokyo Industrial College, and Chiba Agricultural College. Moreover, the National University Corporation Chiba University was established on April 1, 2004, whereupon Chiba University came to be administered by that corporation.

When Chiba University began as a national university under the new system in 1949, it was composed of five faculties (Faculty of Arts and Sciences, School of Medicine, Faculty of Pharmaceutical Sciences, Faculty of Engineering, Faculty of Horticulture), one research center (Research Center on Decay) and faculty libraries. The faculties were then expanded and reorganized several times; as a result, the university is now composed of ten faculties –College of Liberal Arts and Sciences, Faculty of Letters, Faculty of Law, Politics and Economics, Faculty of Education, Faculty of Science, Faculty of Engineering, Faculty of Horticulture, School of Medicine, Faculty of Pharmaceutical Sciences, School of Nursing— as well as faculty libraries, a hospital affiliated with the School of Medicine (Chiba University Hospital), and various departments, research centers, and more.

In addition, the graduate division, which is founded on the education and research conducted by the faculties, is currently composed of Graduate School of Humanities and Studies on Public Affairs, Law School, Graduate School of Education, Graduate School of Science and Engineering, Graduate School of Horticulture, Graduate School of Medical and Pharmaceutical Sciences, Graduate School of Nursing, Graduate School of Medicine, and Graduate School of Pharmaceutical Sciences.

Chiba University is divided into five campuses, each named after the district where it is located: Nishi Chiba, Inohana, Matsudo, Kashiwanoha and Sumida. The Nishi Chiba Campus is the main campus. Situated on a 390,000-m² site in front of the Sobu Line's Nishi Chiba Station, it is where most of the faculties and facilities are located.

The Inohana Campus is on a plateau in Inohana, an area in Chiba City's Chuo Ward; it is where the School of Medicine, Faculty of Pharmaceutical Sciences, School of Nursing, and Chiba University Hospital are located. The Matsudo Campus in Matsudo City is home to the Faculty of Horticulture, and Kashiwanoha Campus in Kashiwa City is where the Center for Environment, Health and Field Sciences is located.

In addition, in 2021, a new Sumida campus was established to house the Design Research Institute.

#### Academic Advisors of Doctoral Program, Graduate School of Horticulture

#### 1. Determination of Desired Academic Advisor

Please determine your academic advisor and secondary advisor as follows (1) and (2).

#### (1) Academic Advisor

Each faculty members of the Horticultural Science Course and Landscape course will provide guidance on the research theme in both Japanese and English. After you have decided on your first choice of the advisor based on your research theme from the list of faculty members in the Horticultural Science Course and Landscape Studies Course, please contact them in advance to obtain their permission before applying for admission. For more detailed information on research topics, etc., please visit the website of the Faculty of Horticulture and the Graduate School of Horticulture (https://www.h.chiba-u.jp/).

#### (2) Secondary Advisor

A faculty member of the International Course of Environmental Horticulture will be your secondary advisor. Please consult with your academic advisor in advance and decide on a secondary advisor from the list of International Course of Environmental Horticulture. (It is not necessary to obtain permission from the secondary advisor in advance.)

The faculty members of the International Course of Environmental Horticulture also belong to the Horticulture and Landscape courses. If the faculty member you have chosen as your academic advisor is also a member of the International Course of Environmental Horticulture, you do not have to decide on a secondary advisor.

#### 2.List of Academic Advisors

#### (1) Course of Horticultural Science

#### **①Horticultural Plant Production and Breeding Program**

#### Field of Horticultural Plant Production

Name	Research Theme (Keyword)	Remarks
Prof. Hitoshi Watanabe	Flower and ornamental plants, <i>Petunia</i> , <i>Calibrachoa</i> , <i>Caryopteris</i> , Cross compatibility, Seed germination, Plug production, Roof planting, Vegetation covering on wall surface	
Prof. Akimasa Nakano	Development of innovative horticulture production system for practical use. Development of new sustainable production system on horticultural crops. Development of new quality evaluation system by stable isotope in Plant Factory. Establishment of "Hortrhizology":Root research focused on horticultural crops. Keywors: Production system, Sustainable production, Stable isotope, Hortrhizology	
Prof. Akira Kanno	Vegetables, Asparagus, Wild species, Interspecific hybrid, Molecular breeding, Sex differentiation, Flower development, Molecular genetics, Plant genetic resources	
Assoc. Prof. Masafumi Johkan	Protected cultivation, Soilless culture, Seed and seedlings, Vegetative propagation, Light quality, Secondary metabolite, Redox, Environmental stress, High yield, Products quality, Export of fruit vegetable	
Assoc. Prof. Satoru Tsukagoshi	Major research topic is hydroponics, especially the optimization of solution management and new management theory technique in vegetable production. The research is applied to improve the vegetable quality, and to produce vegetables in plant factory. Keywords: Protected cultivation, Hydroponics, Products' yield and quality improvement, Plant factory, Nutrient management	Health and Field
Assoc. Prof. Yuya Fukano	My research focuses on sustainable agriculture that enhance both crop production and biodiversity.  Keywords: Crop science, Weed management, Crop protection, Regenerative Agriculture, Biodiversity, Ecology	
Assoc. Prof. Katsuya Ohkawa	Pomology, Chemical fruit thinner, Hydroponic culture, Root restriction culture, Fruit development physiology, Fruit maturation physiology	

Name	Research Theme (Keyword)	Remarks
Assoc. Prof. Takanori Saito	Pomology, Tree physiology, Bud dormancy/sprouting, Molecular phenology, Gene regulatory network, Big data/ Data science	
Assoc. Prof. Takanori Kuronuma	Flower and ornamental plants, <i>Eustoma</i> , Ca deficiency disorder, <i>Panax</i> , Green roof, Environmental impact assessment	Center for Environment, Health and Field Sciences
Guest Prof. Tomohisa Yukawa	Orchidaceae, Tropical plants, Plant genetic resources, Breeding, Ex situ conservation, Botanical garden, Systematics, Molecular phylogenetics, Character evolution, Mycorrhizal symbiosis	

Field of Breeding

Name	Research Theme (Keyword)	Remarks
Prof. Hidenori Sassa	Plant breeding, Molecular genetics, GMO, Functional analysis of genes, Pollen-pistil interactions, Self-incompatibility	
Project Prof. Hideyuki Takahashi	Gravitational and space biology, Space horticulture, Plant physiology, Plant environmental responses, Gravimorphogenesis, Hydrotropism, Plant hormones, Peanut, Cucumber, Morning glory, Rice, Barley, Arabidopsis	
Project Prof. Jun Hidema	Gravitational and space biology, Plant molecular cell physiology, UV biology, gravity/stress responses, Plant environmental adaptation, Light signal transduction, organelle dynamics, model plants such as rice, Arabidopsis, moss, and <i>Lotus japonicus</i> .	
Assoc. Prof. Shinji Kikuchi	Chromosome, Plant breeding, Genetics, Cytogenetics, Karyotype analysis, Species differentiation, Wide cross, Phylogenetic relationship, Fluorescence <i>in situ</i> hybridization	
Assoc. Prof. Tomoko Igawa	Plant biotechnology, Genetic transformation, Fertilization, Gamete interaction, Functional analysis of proteins and genes	
Assoc. Prof. Mai Minamikawa	Breeding of fruit trees, Statistical genetics, Molecular genetics, Data science, Genomic selection, Machine learning	Institute for Advanced Academic Research

#### **②Environmental Science for Bioproduction Program**

**Field of Physical Environment** 

Name	Research Theme (Keyword)	Remarks
Prof. Yukiharu Ogawa	Postharvest technology, Agricultural meteorology, Plant environmental engineering, Food engineering, Food processing, Physical property, Textural property, Physicochemical property, Food digestibility, Plant-based food, Meat analog	
Assoc. Prof. Shoko Hikosaka	Plant environmental engineering, Agricultural meteorology, Postharvest technology, Plant ecophysiology, Smart greenhouse, Plant factory, Plant growth & quality control, Environmental stress response, Bioactive compounds production, Gene expression	

Field of Biological Environment

Name	Research Theme (Keyword)	Remarks
Prof. ○Masashi Nomura	Studies on insect pest control using natural enemies. Studies on molecular phylogenetics and intraspecific variation analysis. Studies on biodiversity of insects.  Keywords: Integrated pest management (IPM), Natural enemy, Lifecycle of insects, Allozyme variation, DNA sequence analysis, Intraspecific variation	
Assoc. Prof. Toshiyuki Usami	Genetic studies on pathogenicity of plant pathogenic fungi. Characterization of plant pathogenic fungi. Keywords: Plant pathology, Plant pathogenic fungus, Plant protection	
Assoc. Prof. Yasuyuki Choh	Studies on predator-prey interactions consisting of plants, herbivores, and predators.  Keywords: Behavioural ecology, Predator-prey interactions, Mites, Intraguild predation, Natural enemies, Herbivores, Antipredator responses	

<sup>&</sup>quot; O " indicates the academic advisor who will retire on March 31, 2027

#### **Field of Chemical Environment**

Name	Research Theme (Keyword)	Remarks
Prof. ○Kazunori Sakamoto	My research focuses on the symbiosis between plant and microorganisms, and its practical use in the fields of agriculture and environmental conservation.  Keywords: Plant nutrition, Rhizosphere microbiology, Symbiosis between plant root and microorganism, Arbuscular mycorrhizal fungi, Rhizobia, Environmental stress tolerance of crop, Soil contamination and restoration	
Prof. Masahide Yamato	Studies on ecological aspects of mycorrhizal symbioses to use the mycorrhizal fungi in agriculture, forestry, plant conservations, etc. Keywords: Fungal ecology, Community analysis of fungi, Mycorrhizal symbiosis, Arbuscular mycorrhiza, Orchid mycorrhiza, Mycoheterotrophic plants	be provided in
Assoc. Prof. Yashima Miwa	We conduct research focusing on soils as limited natural resources to improve agricultural productivity and to conserve environment.	
Assoc. Prof. Shimpei Uraguchi	Our research goals are to understand the molecular mechanism underlying the plant responses to inorganic nutrient status and toxic metals in the rhizosphere, and to establish plant resources for reducing fertilizer input and for mitigating toxic metal accumulation in plant-derived foods, respectively.	
Prof. Satoru Ishikawa	My research topics are to elucidate molecular processes relating to hazardous metal uptake in plants and to develop the innovative technologies for their reductions by the molecular breeding and phytoremediation.  Keywords: Plant nutrition, Plant physiology, Molecular genetics, DNA marker-assisted breeding, Hazardous chemicals, Inorganic analysis, Soil pollution, Phytoremediation, Food safety.	Agro-Environmental Sciences, NARO, Tsukuba-city, Ibaraki-
Guest Assoc. Prof. Mirai Watanabe	Environmental analytical chemistry, Nitrogen pollution in forests, Radiocesium contamination, Trace elements in urban soils	

<sup>&</sup>quot; O " indicates the academic advisor who will retire on March 31, 2027

#### **3** Applied Biological Chemistry Program

Field of Biomolecular Chemistry

Name	Research Theme (Keyword)	Remarks
Prof. ⊚Hiroaki Kodama	Post-transcriptional gene silencing, RNA interference, compost produced by thermophilic bacteria, gut bacteria	Academic guidance will be provided in Nishi- Chiba Campus.
Assoc. Prof. Hirofumi Dohi	Bioorganic chemistry, Bioactive oligosaccharides, Glycolipids, Organic structure analysis, Antifungal compounds, Plant pathogens	Academic guidance will be provided in Nishi- Chiba Campus.
Lecturer Akiko Soma	Molecular biology, Regulation of gene expression, Translation, Small RNA	
Guest Prof. Hirokuni Miyamoto	Biochemistry, Animal Physiology, Gut microbiology, Fermentation engineering, Sustainable Agriculture, Thermophile	Academic guidance will be provided in Nishi- Chiba Campus

<sup>&</sup>quot; © "indicates the academic advisor who will retire on March 31, 2028

Field of Bioresource Chemistry

Name	Research Theme (Keyword)	Remarks
Prof. ⊚Yukari Egashira	Food chemistry, Food function, Nutritional biochemistry, Molecular nutrition, Tryptophan metabolism, Lipid metabolism, Physiological function of dietary fiber, Anti-inflammatory food, Cell culture, Animal, DNA microarray	
Prof. Seigo Amachi	Environmental microbiology, Microbial ecology, Food microbiology, Heavy metal and radionuclide pollutions, Bioremediation, Lactic acid bacteria, Acid tolerance and H <sup>+</sup> -ATPase	

Prof. Mitsumasa Hanaoka	Plant molecular biology, Chloroplast, Photosynthetic microorganism, Intracellular signal transduction, Regulation of gene expression, Light response, Stress responses, Circadian clock, Transcription factors, Phytochemicals, Chloroplast biotechnology, Bioproduction	
Assoc. Prof. Shizuka Hirai	Food function, Food nutrition, Molecular nutrition, Nutritional biochemistry, Cell culture, Animal experiment, Glucose and lipid metabolism, Bone metabolism, Metabolic syndrome, Osteoporosis	
Assoc. Prof. Takashi Shimada	Plant cell biology, Plant physiology, Plant pathology, Molecular biology, Organelle, Lipid, Oil body, Pathogenic fungi	Academic guidance will be provided in Nishi- Chiba Campus.

<sup>&</sup>quot; © "indicates the academic advisor who will retire on March 31, 2028

#### **4** Food and Resource Economics Program

Field of Food System

Name	Research Theme (Keyword)	Remarks
Prof. OYukisato Yoshida	Agricultural management, Social farming, Village farming, Domestic wheat and barley food system, British food system, Earthquake disaster reconstruction	
Prof. Seiichi Sakurai	Marketing of agricultural products, Food system, Marketing management, Relationship, Rural diversification, Social capital	
Assoc. Prof. Yuki Yano	Agribusiness, Marketing Science, Statistics, Agri-Environmental Policy, Energy and Agriculture	

<sup>&</sup>quot; O " indicates the academic advisor who will retire on March 31, 2027

#### Field of Resource and Environmental Economics

Name	Research Theme (Keyword)	Remarks
Prof. Shinichi Kurihara	Agricultural econometrics, Food statistics, Experimental economics	
Prof. Atsushi Maruyama	Applied econometrics, Mathematical modeling, Agricultural economics, Environmental economics, Decision theory	

#### (2) Course of Landscape

① Landscape Planning Program

Name	Research Theme (Keyword)	Remarks
Prof. ⊚Katsunori Furuya	Relationship between human beings and nature in regions, Conservation and sustainable use of biodiversity, Environmental education, Ecotourism, History, Principle, National Park, Nature protection/restoration	
Prof. Yukihiko Saito	City planning, Rural planning, Regional planning, Urban open space, Living space, Settlement planning, Tourism landscape, Recreation, Land use and land management, Regional revitalization	
Assoc. Prof. Ryosuke Shimoda	Theory of landscape architecture, Cultural landscape, Planning and design of memorial place, Structuring of natural environment in development of collective housing site, Landscape planning of urban and rural revitalization, Urban Ecology	

<sup>&</sup>quot; © "indicates the academic advisor who will retire on March 31, 2028

**2** Landscape Design Program

Name	Research Theme (Keyword)	Remarks
Prof.  Sunhua Zhang	Science of green space environment, Landscape design, Culture of green space environment, Technique of expression about green space	
Prof. Shiro Takeda	Landscape design, Integrated Design of Open Space and Architecture, Spatial Design in Blue/Green Infrastructures, Cognitive Spatial Domains, Campus Planning, Theory in Landscape Architecture	
Prof. Takeshi Kinoshita	Green infrastructure planning and design, Ecological design, Public park design and regeneration, Landscape facility design	

<sup>&</sup>quot; © " indicates the academic advisor who will retire on March 31, 2028

Landscape Management Program

Name	Research Theme (Keyword)	Remarks
Prof. Shigeto Yanai	Landscape management, Evaluation of green space function, Public open space, Park management, Open space conservation, Community development, Partnership, Action research	
Prof. Noriko Akita	Landscape planning and management, Land use management, Community based greenery, Environmental governance, Place making harmonize with nature, Landscape plan, Regeneration and resilience Environmental governance, Plan and project assessment, Regeneration and resilience	
Name	Research Theme (Keyword)	Remarks
Assoc. Prof. Tomoko Takeuchi	Landscape management, Restoration of historic gardens, Traditional gardening and town management, Revitalization of parks, Urban open space policy, Public-private partnership	

Landscape System Science Program

<u> </u>		
Name	Research Theme (Keyword)	Remarks
Prof.	Forest ecology, Forest management, Biological interaction,	
Kiyoshi Umeki	Fieldwork, Statistical analysis, Computer simulation	

Landscape Resource Science Program

Name	Research Theme (Keyword)	Remarks
Prof.  OArata Momohara	Vegetation history, Environmental archaeology, Quaternary sciences, Climatic change, Plant evolution, Wetland, Conservation ecology	
Prof. Terumasa Takahashi	Green space ecosystem, Planting ground, Soil organism, Soil improvement, Nutrition dynamics, Development and management of green space, Recycle system in revegetation	
Assoc. Prof. Akira Kato	Remote Sensing, GIS, Landscape Ecology, 3D Laser Scanner, Forest Science, Photogrammetry, Ecosystem Services, Monitoring	
Assist. Prof. Yoichi Watanabe	Genetics and Genomics, Plant Phylogeography, Evolutionary Ecology, Management of Plant Populations, Conservation of Biodiversity	

<sup>&</sup>quot; © "indicates the academic advisor who will retire on March 31, 2028

**©Environment and Human Health Sciences Program Program** 

Name	Research Theme (Keyword)	Remarks
Prof. Yutaka Iwasaki	Well-being in green space, Horticulture therapy, Forest therapy, Aromatherapy, Greening in Hospital, Physiological and Psychological effect of green space	
Assoc. Prof. Komei Mishima	Environmental education, Food and Agriculture Education, Science communication, Botanical culture, Environmental activity, Social horticulture, Environmental sociology, Dissemination of environmental-related informations	

#### (3) International Course of Environmental Horticulture

Please designate a secondary advisor from the following faculty members.

**①**Horticultural Science Program

Name	Research Theme (Keyword)	Remarks
Prof. Mitsumasa Hanaoka	Plant molecular biology, Chloroplast, Photosynthetic microorganism, Intracellular signal transduction, Regulation of gene expression, Light response, Stress responses, Circadian clock, Transcription factors, Phytochemicals, Chloroplast biotechnology, Bioproduction	
Prof Yukiharu Ogawa	Postharvest technology, Food engineering, Microscopy, Physical property, Textural property, Chemical Analysis, Physicochemical property, Food digestion, Plant-based food, Meat analog, Biomass	
Prof. Seiichi Sakurai	Marketing of agricultural products, Food system, Marketing management, Relationship, Rural diversification, Social capital	
Prof. Atsushi Maruyama	Applied econometrics, Mathematical modeling, Agricultural economics, Environmental economics, Decision theory	
Assoc. Prof. Satoru Tsukagoshi	Major research topic is hydroponics, especially the optimization of solution management and new management theory technique in vegetable production. The research is applied to improve the vegetable quality, and to produce vegetables in plant factory. Keywords: Protected cultivation, Hydroponics, Products' yield and quality improvement, Plant factory, Nutrient management	Health and Field
Assoc. Prof. Shinji Kikuchi	Chromosome, Plant breeding, Genetics, Cytogenetics, Karyotype analysis, Species differentiation, Wide cross, Phylogenetic relationship, Fluorescence <i>in situ</i> hybridization	
Assoc. Prof. Miwa Yashima	Soil and fertilizer application, Nitrogen and carbon cycling, Interaction between soil and plants, Application of stable isotopes	
Assoc. Prof. Na Lu	LED lighting applications, Environmental control technologies for plant production, Indoor/vertical farming, Plant factory, Plant science, Bioactive compounds enhancement in herbs and medicinal plants, Healthy & nutritious food	
Assoc. Prof. Takanori Saito	Pomology, Tree physiology, Bud dormancy/sprouting, Molecular phenology, Gene regulatory network, Big data/ Data science	
Assoc. Prof. Yuki Yano	Agribusiness, Marketing Science, Statistics, Agri-Environmental Policy, Energy and Agriculture	

**②**Landscape Program

Name	Research Theme (Keyword)	Remarks
Prof. ⊚Katsunori Furuya	Relationship between human beings and nature in regions, Conservation and sustainable use of biodiversity, Environmental education, Ecotourism, History, Principle, National Park, Nature protection/restoration	
Prof. ⑤Junhua Zhang	Landscape design, Technique of expression about green space, Culture of traditional Chinese garden, Culture of green space environment	
Prof. Takeshi Kinoshita	Green infrastructure planning and design, Ecological design, Public park design and regeneration, Landscape facility design	
Prof. Noriko Akita	Landscape planning and management, Land use management, Community based greenery, Environmental governance, Place making harmonize with nature, Landscape plan, Regeneration and resilience Environmental governance, Plan and project assessment, Regeneration and resilience	
Assoc. Prof. Ryosuke Shimoda	Theory of landscape architecture, Cultural landscape, Planning and design of memorial place, Structuring of natural environment in development of collective housing site, Landscape planning of urban and rural revitalization, Urban Ecology	
Assoc. Prof. Tomoko Takeuchi	Landscape management, Restoration of historic gardens, Traditional gardening and town management, Revitalization of parks, Urban open space policy, Landscape administration, Public-private partnership	

Name	Research Theme (Keyword)	Remarks
Assoc. Prof. Akira Kato	Remote Sensing, GIS, Landscape Ecology, 3D Laser Scanner, Forest Science, Photogrammetry, Ecosystem Services, Monitoring	

<sup>&</sup>quot; © "indicates the academic advisor who will retire on March 31, 2028



