Student Handbook

Graduate School of Frontier Biosciences
Osaka University

CONTENTS

Educational Program

■Course Duration and Degrees Awarded

Graduate School of Frontier Biosciences offers a 5-year doctral course in which a master's degree can be earned en route to the doctor's degree.

The following degrees are awarded to students who fulfill requirements:

Master of Science, Doctor of Philosophy

■Requirements for Completion and Registration Procedure

○Students admitted to the 5-year doctral course:

To complete the 5-year doctral course, students need to earn a minimum of 40 credits. At least 16 credits must be earned from Group A and Group B subjects, with 2 or more credits from group A, 12 or more credits from group B. In addition, 14 or more credits must be earned from Group C, 2 or more from Group D, and 8 or more from Group E subjects. The subjects for each group are shown in the subject list.

In addition, subjects of other graduate schools, etc. may at times be approved for credit as Group A or Group B subjects.

Group A core subjects: 2 or more credits

Group B elective subjects: 12 or more credits

A minimum of 16 credits from Group A core subjects and Group B elective subjects

Group C research subjects: 14 or more credits

Students who complete 30 or more credits are given an interim examination (master's thesis presentation), the successful passing of which completes the requirements for a master's degree.

Students who pass the interim examination may take Group D and Group E subjects. If you fail to pass the interim examination, you must repeat the second year.

<table>
<tr><th colspan="2">Subject Group</th><th>Year</th><th colspan="4">Requirements</th></tr>
<tr><td>Group A</td><td>Core Subjects</td><td>1</td><td>2 credits</td><td rowspan="2">Total
16 credits</td><td rowspan="3">30credits
*required for Master's Degree</td><td rowspan="5">40credits</td></tr>
<tr><td>Group B</td><td>Elective Subjects</td><td>1-2</td><td>12 credits</td></tr>
<tr><td>Group C</td><td>Research Subjects</td><td>1-2</td><td>14 credits</td><td></td></tr>
<tr><td>Group D</td><td>Project Research Subjects</td><td>3-5</td><td>2 credits</td><td></td><td rowspan="2">10credits</td></tr>
<tr><td>Group E</td><td>Research Subjects</td><td>3-5</td><td>8 credits</td><td></td></tr>
</table>

○Third-year admission:

Students admitted into the third year (beginning of the doctor study) of the course will receive the necessary research instruction. In addition, they must choose subjects from the list of subjects and earn credits, in the manner explained below.

<table>
<tr><th colspan="2">Subject Group</th><th>Year</th><th colspan="2">Requirements</th></tr>
<tr><td>Group D</td><td>Project Research Subjects</td><td>3-5</td><td>2 credits</td><td rowspan="2">10 credits</td></tr>
<tr><td>Group E</td><td>Research Subjects</td><td>3-5</td><td>8 credits</td></tr>
</table>

Subject lists : http://www.fbs.osaka-u.ac.jp/eng/student/curriculum.php

Subject List

Categories	Course Name	Credits			year
		lecture	laboratory work, practical training		
Group A	Introduction to Physics I	2			1
	Introduction to Physics II	2			1
	Introduction to Mathematics I	2			1
	Introduction to Chemistry I	1			1
	Introduction to Chemistry II	1			1
	Exercise in Physics			1	1
	Exercise in Biology			1	1
	Exercise in Chemistry			1	1
	Exercise in Medical Science			1	1
	Exercise in Computer Science			1	1
	Introduction to Nanobiology I	0.5			1
	Introduction to Nanobiology II	0.5			1
	Introduction to Nanobiology III	0.5			1
	Introduction to Biomolecular Networks I	0.5			1
	Introduction to Biomolecular Networks II	0.5			1
	Introduction to Biomolecular Networks III	0.5			1
	Introduction to Biomolecular Networks IV	0.5			1
	Introduction to Biomolecular Networks V	0.5			1
	Introduction to Integrated Biology I	0.5			1
	Introduction to Integrated Biology II	0.5			1
	Introduction to Integrated Biology III	0.5			1
	Introduction to Integrated Biology IV	0.5			1
	Introduction to Integrated Biology V	0.5			1
	Introduction to Organismal Biosystems I	0.5			1
	Introduction to Organismal Biosystems II	0.5			1
	Introduction to Organismal Biosystems III	0.5			1
	Introduction to Organismal Biosystems IV	0.5			1
	Introduction to Neuroscience I	0.5			1
	Introduction to Neuroscience II	0.5			1
	Introduction to Neuroscience III	0.5			1
	Introduction to Neuroscience IV	0.5			1
	Introduction to Biophysical Dynamics I	0.5			1
	Introduction to Biophysical Dynamics II	0.5			1
	Introduction to Biophysical Dynamics III	0.5			1
	Introduction to Biomedical Engineering I	0.5			1
	Introduction to Biomedical Engineering II	0.5			1
	Introduction to Biomedical Engineering III	0.5			1
	Introduction to Biomedical Engineering IV	0.5			1

Categories	Course Name	Credits			year
		lecture	laboratory work, practical training		
Group B	Nanobiology IA	4			1
	Nanobiology IB	4			1
	Nanobiology IC	4			1
	Nanobiology ID	4			1
	Nanobiology IIA	4			2
	Nanobiology IIB	4			2
	Nanobiology IIC	4			2
	Nanobiology IID	4			2
	Biomolecular Networks IA	4			1
	Biomolecular Networks IB	4			1
	Biomolecular Networks IC	4			1
	Biomolecular Networks ID	4			1
	Biomolecular Networks IIA	4			2
	Biomolecular Networks IIB	4			2
	Biomolecular Networks IIC	4			2
	Biomolecular Networks IID	4			2
	Integrated Biology IA	4			1
	Integrated Biology IB	4			1
	Integrated Biology IC	4			1
	Integrated Biology ID	4			1
	Integrated Biology IE	4			1
	Integrated Biology IIA	4			2
	Integrated Biology IIB	4			2
	Integrated Biology IIC	4			2
	Integrated Biology IID	4			2
	Integrated Biology IIE	4			2
	Organismal Biosystems IA	4			1
	Organismal Biosystems IB	4			1
	Organismal Biosystems IC	4			1
	Organismal Biosystems ID	4			1
	Organismal Biosystems IIA	4			2
	Organismal Biosystems IIB	4			2
	Organismal Biosystems IIC	4			2
	Organismal Biosystems IID	4			2
	Neuroscience IA	4			1
	Neuroscience IB	4			1
	Neuroscience IC	4			1
	Neuroscience ID	4			1
	Neuroscience IE	4			1
	Neuroscience IF	4			1
	Neuroscience IIA	4			2
	Neuroscience IIB	4			2
	Neuroscience IIC	4			2
	Neuroscience IID	4			2
	Neuroscience IIE	4			2
	Neuroscience IIF	4			2
	Biophysical Dynamics IA	4			1
	Biophysical Dynamics IB	4			1
	Biophysical Dynamics IC	4			1
	Biophysical Dynamics ID	4			1
	Biophysical Dynamics IIA	4			2
	Biophysical Dynamics IIB	4			2
	Biophysical Dynamics IIC	4			2
	Biophysical Dynamics IID	4			2

Categories	Course Name	Credits			year
		lecture	laboratory work, practical training		
Group B	Biomedical Engineering IA	4			1
	Biomedical Engineering IB	4			1
	Biomedical Engineering IC	4			1
	Biomedical Engineering ID	4			1
	Biomedical Engineering IE	4			1
	Biomedical Engineering IF	4			1
	Biomedical Engineering IG	4			1
	Biomedical Engineering IH	4			1
	Biomedical Engineering IS	4			1
	Biomedical Engineering IIA	4			2
	Biomedical Engineering IIB	4			2
	Biomedical Engineering IIC	4			2
	Biomedical Engineering IID	4			2
	Biomedical Engineering IIE	4			2
	Biomedical Engineering IIF	4			2
	Biomedical Engineering IIS	4			2
	Biomechanics I	1			1
	Biomechanics II	1			2
	Special Lectures I	1			1～2
	Special Lectures II	1			1～2
	Special Lectures III	1			1～2
	Special Lectures IV	1			1～2
	Special Lectures V	1			1～2
	Special Lectures VI	1			1～2
	Special Lectures VII	1			1～2
	Special Lectures VIII	1			1～2

Categories	Course Name	Credits			year
		lecture	laboratory work, practical training		
Group C	Seminar in Nanobiology IA		7		1
	Seminar in Nanobiology IB		7		1
	Seminar in Nanobiology IC		7		1
	Seminar in Nanobiology ID		7		1
	Seminar in Nanobiology IIA		7		2
	Seminar in Nanobiology IIB		7		2
	Seminar in Nanobiology IIC		7		2
	Seminar in Nanobiology IID		7		2
	Seminar in Biomolecular Networks IA		7		1
	Seminar in Biomolecular Networks IB		7		1
	Seminar in Biomolecular Networks IC		7		1
	Seminar in Biomolecular Networks ID		7		1
	Seminar in Biomolecular Networks IIA		7		2
	Seminar in Biomolecular Networks IIB		7		2
	Seminar in Biomolecular Networks IIC		7		2
	Seminar in Biomolecular Networks IID		7		2
	Seminar in Integrated Biology IA		7		1
	Seminar in Integrated Biology IB		7		1
	Seminar in Integrated Biology IC		7		1
	Seminar in Integrated Biology ID		7		1
	Seminar in Integrated Biology IE		7		1
	Seminar in Integrated Biology IIA		7		2
	Seminar in Integrated Biology IIB		7		2
	Seminar in Integrated Biology IIC		7		2
	Seminar in Integrated Biology IID		7		2
	Seminar in Integrated Biology IIE		7		2
	Seminar in Organismal Biosystems IA		7		1
	Seminar in Organismal Biosystems IB		7		1
	Seminar in Organismal Biosystems IC		7		1
	Seminar in Organismal Biosystems ID		7		1
	Seminar in Organismal Biosystems IIA		7		2
	Seminar in Organismal Biosystems IIB		7		2
	Seminar in Organismal Biosystems IIC		7		2
	Seminar in Organismal Biosystems IID		7		2
	Seminar in Neuroscience IA		7		1
	Seminar in Neuroscience IB		7		1
	Seminar in Neuroscience IC		7		1
	Seminar in Neuroscience ID		7		1
	Seminar in Neuroscience IE		7		1
	Seminar in Neuroscience IF		7		1
	Seminar in Neuroscience IIA		7		2
	Seminar in Neuroscience IIB		7		2
	Seminar in Neuroscience IIC		7		2
	Seminar in Neuroscience IID		7		2
	Seminar in Neuroscience IIE		7		2
	Seminar in Neuroscience IIF		7		2
	Seminar in Biophysical Dynamics IA		7		1
	Seminar in Biophysical Dynamics IB		7		1
	Seminar in Biophysical Dynamics IC		7		1
	Seminar in Biophysical Dynamics ID		7		1
	Seminar in Biophysical Dynamics IIA		7		2
	Seminar in Biophysical Dynamics IIB		7		2
	Seminar in Biophysical Dynamics IIC		7		2
	Seminar in Biophysical Dynamics IID		7		2

Categories	Course Name	Credits			year
		lecture	laboratory work, practical training		
Group C	Seminar in Biomedical Engineering IA		7		1
	Seminar in Biomedical Engineering IB		7		1
	Seminar in Biomedical Engineering IC		7		1
	Seminar in Biomedical Engineering ID		7		1
	Seminar in Biomedical Engineering IE		7		1
	Seminar in Biomedical Engineering IF		7		1
	Seminar in Biomedical Engineering IG		7		1
	Seminar in Biomedical Engineering IH		7		1
	Seminar in Biomedical Engineering IS		7		1
	Seminar in Biomedical Engineering IIA		7		2
	Seminar in Biomedical Engineering IIB		7		2
	Seminar in Biomedical Engineering IIC		7		2
	Seminar in Biomedical Engineering IID		7		2
	Seminar in Biomedical Engineering IIE		7		2
	Seminar in Biomedical Engineering IIF		7		2
	Seminar in Biomedical Engineering IIS		7		2
Group D	Project Research I			2	3～5
	Project Research II			2	3～5
	Project Research III			2	3～5
	Project Research IV			2	3～5
	Project Research V			2	3～5
	Project Research VI			2	3～5
	Project Research VII			2	3～5
	Project Research VIII			2	3～5
	Project Research IX			2	3～5
	Project Research X			2	3～5
	Project Research XI			2	3～5
	Project Research XII			2	3～5
	Project Research XIII			2	3～5
	Project Research XIV			2	3～5
	Project Research XV			2	3～5
	Project Research XVI			2	3～5
	Project Research XVII			2	3～5
	Project Research XVIII			2	3～5
	Project Research XIX			2	3～5
	Project Research XX			2	3～5
	Project Research XXI			2	3～5
	Project Research XXII			2	3～5
	Project Research XXIII			2	3～5
	Project Research XXIV			2	3～5
	Project Research XXV			2	3～5
	Project Research XXVI			2	3～5
	Project Research XXVII			2	3～5
	Project Research XXVIII			2	3～5
	Project Research XXIX			2	3～5
	Project Research XXX			2	3～5
	Project Research XXXI			2	3～5
	Project Research XXXII			2	3～5
	Project Research XXXIII			2	3～5
	Project Research S			2	3～5

Categories	Course Name	Credits			year
		lecture	laboratory work, practical training		
Group E	Advanced Seminar in Nanobiology A		8		3～5
	Advanced Seminar in Nanobiology B		8		3～5
	Advanced Seminar in Nanobiology C		8		3～5
	Advanced Seminar in Nanobiology D		8		3～5
	Advanced Seminar in Biomolecular Networks A		8		3～5
	Advanced Seminar in Biomolecular Networks B		8		3～5
	Advanced Seminar in Biomolecular Networks C		8		3～5
	Advanced Seminar in Biomolecular Networks D		8		3～5
	Advanced Seminar in Integrated Biology A		8		3～5
	Advanced Seminar in Integrated Biology B		8		3～5
	Advanced Seminar in Integrated Biology C		8		3～5
	Advanced Seminar in Integrated Biology D		8		3～5
	Advanced Seminar in Integrated Biology E		8		3～5
	Advanced Seminar in Organismal Biosystems A		8		3～5
	Advanced Seminar in Organismal Biosystems B		8		3～5
	Advanced Seminar in Organismal Biosystems C		8		3～5
	Advanced Seminar in Organismal Biosystems D		8		3～5
	Advanced Seminar in Neuroscience A		8		3～5
	Advanced Seminar in Neuroscience B		8		3～5
	Advanced Seminar in Neuroscience C		8		3～5
	Advanced Seminar in Neuroscience D		8		3～5
	Advanced Seminar in Neuroscience E		8		3～5
	Advanced Seminar in Neuroscience F		8		3～5
	Advanced Seminar in Biophysical Dynamics A		8		3～5
	Advanced Seminar in Biophysical Dynamics B		8		3～5
	Advanced Seminar in Biophysical Dynamics C		8		3～5
	Advanced Seminar in Biophysical Dynamics D		8		3～5
	Advanced Seminar in Biomedical Engineering A		8		3～5
	Advanced Seminar in Biomedical Engineering B		8		3～5
	Advanced Seminar in Biomedical Engineering C		8		3～5
	Advanced Seminar in Biomedical Engineering D		8		3～5
	Advanced Seminar in Biomedical Engineering E		8		3～5
	Advanced Seminar in Biomedical Engineering F		8		3～5
	Advanced Seminar in Biomedical Engineering S		8		3～5

Curriculum Overview

■Subject Groups

(Years 1 and 2)

○Group A core subjects include lecture subjects, practical training subjects, and introductory research subjects, most of which are taught in Japanese in the spring semester as intensive courses. In fall most lectures are conducted in English. To acquire a broad bioscience background, students are encouraged to select subjects whose discipline is different from the one of their undergraduate study.

○For Group B subjects

1. Elective subjects: The requirements for receiving credit include participation in journal clubs, research progress report sessions, and seminars, etc. held in the student's home lab, as well as the submission of seminar reports. (8 credits)

2. Biomechanics subject: Discuss with the sub supervisor about your own research progress. Ask for his/her advice. At the second year, consult with the sub supervisor about your thesis presentation to sophisticate before Interim Examination, which is held at the end of the academic year. (2credits)

3. Intensive courses: Held in the fall and winter semester ("special intensive courses") and each course lasts for about two days. Note that the registration period for these subjects is in the fall/winter semester.

○Group C research subjects consist of master's level research activities conducted in the home lab and elsewhere.

(Years 3 to 5)

*Passing the interim examination (presentation of master's thesis) is prerequisite to begin the third year study.

○Group D project research subjects (Lab Rotations)

Lab Rotations enable students to acquire a broad background of knowledge and experience in multiple disciplines by conducting research in labs other than their home lab.

○Group E research subjects consist of the doctor's level research activities conducted in the

home lab and elsewhere. These should be completed during the third, fourth, or fifth year.

■Subjects approved for Credit as Group A or Group B Subjects for 2019

FBS has approve credits earned from the subjects listed below, which are offered at other graduate schools, etc. They are counted as credits as Group A core subjects or Group B elective subjects.

○Study of Communication-Design Subjects

Credits earned from these subjects are regarded as Group A or B credits.

○CO Design subjects

○OUSSEP (Osaka University Short-term Student Exchange Program (OUSSEP) (International Exchange Subjects)

Credits earned from these subjects are regarded as Group B credits

■Research Ethics

“Research Ethics” itself is not a regular subject for credit. However, students admitted into the first year of the course must select the subject in order to satisfy the requirements for Group C credits. Students admitted into the third year must select the course in order to satisfy Group E credit requirements. As a rule, the subject is taught in the spring/summer semester (around May or June).

Students are required to attend a lecture (1 session) and submit a report.

■Seminar Reports for Group B Subject Credit Requirements

Students must attend five seminars held on- or off-campus and submit a Seminar Report for each using the format below as a part of credit for Group B Subject (This does not include participation in seminars held in one's home lab, etc.).

The intent behind this requirement is that students learn about research disciplines other than their own. Accordingly, students are encouraged to be proactive in participating in a variety of seminars, which may take place on- or off-campus. Information on seminars to be held at this School will be posted on the School website's bulletin board and on campus posters. In addition, there are many seminars given in English by foreign as well as Japanese scholars. Please consult with your supervisor about deciding which seminars to attend.

However, please note that although more than one seminar may be held on one day, a maximum of three seminars per day may be used for Seminar Reports.

Submission Deadline: As a rule, within 2 weeks after the seminar and before the end of January it is require to submit 5 reports each year.

Submission: To your supervisor (original) and student service office (copy)

(Sample Format)

Group B Seminar Report No.__

Presenter: seal

Topic:

Date and Time:

Location:

Student Name: _____ Student ID No. _____

Summary of the Seminar:

■Group B “Biomechanics” subject Guideline

【Philosophy】

We expect students to review their research theme through discussing with scholars in a lab other than their home lab during the 1st and 2nd year.

【Outline】

Discuss with the sub supervisor about your own research progress. Obtain appropriate advice from the sub supervisor. At the second year, consult with a sub supervisor about your thesis presentation to sophisticate before the Interim Examination, which is held at the end of the academic year. (2credits)

【Period】

After the decision of a sub supervisor (August in the first year), this will be held twice a year, namely, at the beginning of the semester or at the end of the semester. If necessary, it will be held three times or more often.

【Grade】

Student must contact a vice supervisor to have the opportunity. Bring the format to a vice supervisor each time. Sub supervisor must submit the format each time within two weeks.

■Details of Project Research (Lab Rotations)

【Philosophy】

To promote interdisciplinary research and encourage students to acquire wide perspectives of research, by conducting research in a (host) lab other than their home lab. This may be carried out after the start of the third year.

【Outline】

Lab Rotations will typically be of type A described below; however, type B is optional depending on needs of each lab and individual student.

Type A. The student participates in research in a different lab, and credit is approved by the host academic staff.

1. Participation in regular daily research in a different lab
2. Participation in research activities such as seminars, colloquiums, journal clubs, etc. in a different lab

1. In the case of No. 1 above, participation is for roughly two weeks (in total).
2. In the case of No. 2 above, participation is generally once per week, for a period of roughly eight weeks. Preferably the student will also be given an opportunity to give a presentation.

Type B. Approval of credit by the student's supervisor
Credit may be approved by the supervisor if he or she judges that the student in question has participated in research in a different lab. Some examples are
3. Participation in a practical experimentation course or short-term intensive course in Japan or overseas.
4. Lectures or journal clubs led by foreign academic staff
   a. Special intensive courses taught by foreign academic staffs: the student, who has already taken a special intensive course taught by a foreign academic staff member, takes a different intensive course by a foreign academic staff member.
   b. Journal clubs led by foreign academic staff: a foreign academic staff member not conducting a special intensive course leads a journal club at the student's request, and the student participates in the said journal club (course).
   c. Other
   5. Research participation in a lab in Japan or overseas
   6. Internship at a company

【Period】
As a rule, Lab Rotations are to begin early in April during the third year.

【Student Limit】
Each lab may admit a maximum of about five students; nonetheless, although this limit may change depending on the capacity of a lab.

【Host Lab Selection】
Host labs are to be chosen individually through consultation between the student and academic staff of the lab. Preferably, the student's supervisor should also be consulted.

Laboratory Placement

■Tentative Home Lab Placement

Students must choose a home lab by the beginning of August, until when they carry out graduate study tentatively at one of FBS labs. Those who have not decided on a home lab are advised to visit labs you are interested in as early as possible.

■Permanent Home Lab Placement

In middle of July, students need to register the supervisor and sub supervisor by submitting Supervisor/Sub supervisor Registration Sheet (see the format below). Those who would like to continue their graduate study in the lab tentatively staying will have a priority over students seeking to transfer in from a different lab. If you wish to change the lab, you must reach agreement both with previous supervisor and prospective one.

■Sub Supervisors

In addition to the supervisor, who provides research instruction, sub supervisor is assigned to each student. Sub supervisor is expected to give an advice regarding various matters. Students who enrolled after 2018 academic year must register Biomechanics I(first year) and Biomechanics Ⅱ(second year) from Group B subjects.

Students are encouraged to consult with their supervisor for help in choosing their sub supervisor.

Note: Agreements regarding Sub Supervisors

1. The Sub supervisor can supervise a student, on behalf of the latter, with approval of the Educational Affairs Committee.
2. For students whose the supervisor is a visiting academic staff member from a partner graduate school, an sub supervisor should be chosen from a professor of core laboratories (Nanobiology Laboratories, Biomolecular Networks Laboratories, Integrated Biology Laboratories, Organismal Biosystems Laboratories, Neuroscience Laboratories, Special Research Promotion Group and Biomedical Engineering Laboratories (affiliates) of the FBS.
3. Sub supervisors should not necessarily be a full professor. Associate professors can also be a sub supervisor. It is strongly encouraged to choose their sub supervisor whose discipline of research is different from that of supervised student.
4. As a general rule, sub supervisor is in charge of four students a year. Some sub supervisor might be in charge of more students under the decision of committee of academic affairs.
5. Sub supervisor is in charge of guidance and training of subject Biomechanics I (first year) and Biomechanics Ⅱ(second year) .At the end of academic year, sub supervisor must give the grade evaluation to each students.

Supervisor/ Sub-supervisor Registration Sheet

DATE :

研　究　科 Graduate School	生命機能研究科 Frontier Biosciences	**学籍番号**	3	2	A	1	9			
連 絡 先 Lab Phone Number	内線 Ext.	学生氏名 Name								

本配属指導教員名 Name of Supervisor		
副指導教員名 Name of Sub-Supervisor	First choice	
	Second choice	

Note: Fill in the form and submit FBS Student Service Office
Deadline: 5pm July 5, 2019

Degree Conferral

■Master's Degree Conferral

Graduate School of Frontier Biosciences ("FBS") awards master's degrees upon fulfillment of the requirements corresponding to completion of a master's course. During the second year of the 5-year doctorate course, the Midterm Examination is held in which the master's thesis is submitted and presented. A master's degree is conferred based on successful defense of the thesis. Refer to the "Requirements for Completion and Registration Procedure" for the eligibility requirements. The policies on Midterm Examination are listed below. (Revised 13 Dec, 2017)

FBS Policies on Implementation of Midterm Examination

(Implementation)

(1)Students must undergo Midterm Examination (" Midterm Exam") as part of the requirements for completion of the doctorate course.

(2) As a rule, Midterm Exam shall be conducted at the end of the fall semester of the second year. Students who do not undergo Midterm Exam during this time shall do so at the end of the second semester of the third year or later, depending on the judgment of the student's supervisor. However, those approved for special consideration in light of studying abroad, medical reasons, or other extenuating circumstances may undergo Midterm Exam at a day arranged by the Student Affairs Committee.

(3) Students who wish to undergo Midterm Exam shall submit a master's thesis.

(4) Midterm Exam shall be implemented based on the standards of a master's thesis defense.

(5) Students who pass Midterm Exam shall be awarded a master's degree.

(6) The requirements for applying for Midterm Exam shall be as follows:

① The student must have been enrolled in FBS's doctor course for two years or more as of the end of the year in which application for Midterm Exam is made. The student must also be on track to complete the prescribed number of credits (16 or more—at least 2 credits from subject Groups A and 12 credits from group B, 14 or more from Group C, 30 or more in total) by the end of the second year.

Moreover, if the prescribed number of credits are not earned, the decision regarding pass or fail in the student's Midterm exam is put on hold. In this case, the student must enroll in the next school year and complete the required credits, upon which he or she shall be awarded the master's degree.

②The date to apply for Midterm Exam shall be determined separately by the Dissertation Committee.

(7) When students who already hold a master's or doctor's degree are enrolled in the first year of the course, they shall also undergo Midterm Exam as mentioned above.

(8) Those admitted into the third year of the course shall be exempt from undergoing Midterm Exam.

(9) Students who fail Midterm Exam shall be permitted to undergo Midterm Exam held in the next year.

(Other)

(1) Students who pass Midterm Exam shall be deemed qualified to enroll in Group D and Group E subjects as well as submit a (doctoral) dissertation.

(2) Questions that may arise regarding other policies on Midterm Exam shall be deliberated on by the Student Affairs Committee and resolved by the Faculty Meeting.

Midterm Examination timetable

Mid July	Announcement of Midterm Exam on FBS web message board
Early January	Deadline for submission of "Thesis Title Sheet" "Thesis abstract", "Diploma Confirmation Sheet"
Mid February	Deadline for submission of thesis
	Midterm Examination
Early March	Approval for Degree Conferment
	Deadline for submission of the final version of thesis

*This is a reference. Please confirm the schedule on the FBS web message board.

Note when taking the Midterm Examination:

Students must be "on track" by completing the required 30 credits to undergo Midterm Exam. School regulations hold that, even if the student passes the defense of his or her master's thesis, the pass or fail decision in Midterm Exam, normally made at the beginning of March, shall be put on hold if the requisite 30 credits have not been completed.

If the decision is put on hold, conferral of the master's degree will occur during the next school year, once the credit requirements are met. In this case, the student must be enrolled at FBS for April and thereafter. However, such students will not be allowed to take subjects designed for the third and later years of the course, i.e., Group D and Group E subjects. In particular, students who plan to withdraw and get jobs after receiving their master's degree in the second year should keep this rule in mind.

Dissertation Committee Members

Two or more professors (the supervisor as a primary examiner, plus a sub examiner(s)) of FBS shall constitute the Dissertation Committee that reviews the master's thesis presentation. If necessary, an associate professor or academic staff member who are not affiliated to FBS may serve as a second sub examiner.

Necessary Documents

Documents	Submit to	Note
Thesis Title Sheet	Student Services Office	Sub examiners must be appointed by your supervisor and their consent must be obtained.
Diploma Confirmation Sheet	Student Services Office	
Abstract	Student Services Office	Make it one page of A4 size paper.
Thesis	Examiners Student Services Office	There is no specific thesis format and no limit to the amount of pages.

■Doctor's Degree Conferral

FBS's requirements for application for a doctor's degree as well as the dissertation defense procedure are as prescribed below.

Doctor's Degree Application Requirements and Dissertation Defense Procedure

To receive a doctor's degree, students must study for the prescribed length of time, complete the required number of credits or be on track to do so, receive research instruction, and meet the doctor's degree application requirements set by FBS.

【Requirements】

After receiving an approval from their supervisor (professor), students may apply for the doctor's degree.

【Procedure】

There are two steps to the dissertation defense process—a Preliminary Defense and a Dissertation Defense. After completing the prescribed procedure and passing the Preliminary Defense, the student may undergo the Dissertation Defense.

1. Doctor's Degree Application

Students who fulfill the requirements for applying for the doctor's degree are to submit to the Doctor's Degree Qualifications Committee (DQC) their Application for Degree (Preliminary Defense version) ("the Application"), along with their dissertation in temporary binding. The Application consists of a) the Dissertation Title Form, b) Recommendation form for Preliminary Defense Committee member (Chair, Vice-Chair) candidates, c) a summary of the dissertation, and d) a recommendation letter from the student's supervisor.

〈Review of the Application〉

After reviewing the Application and the dissertation, the DQC determines the PDC members. The PDC members shall be academic staff members who are closely related to the specialized field of the applicant ("candidate"). They shall convene the Preliminary Defense Session and PDC Meetings.

The PDC members must be formed by three members including at least 2 professors of this Graduate School (professors or associate professors). Chair must be a professor of core laboratory of FBS. Each Dissertation Committee shall have the discretion to include additional committee members from other Graduate Schools or other University research organizations (corresponding to professor or associate professor). The student's supervisor may not be on the Preliminary Defense Committee.

2. Preliminary Defense Session

Students whose Applications have been approved are allowed to have the Preliminary Defense. This is a private session in which the candidate presents his or her dissertation to the PDC members and responds to their questions. It shall be held at least one week before the Dissertation Defense Session. The candidate shall make arrangements in consultation with all PDC members as to the location and schedule of the session, while considering that it will possibly be held two or more times.

〈PDC Meetings〉

After the above session, the dissertation shall be reviewed in meetings of the PDC. The opinions of supervisors and related parties may be requested as needed at PDC meetings. The PDC may also decide in its meetings to postpone the review in order to hold further Preliminary Defense Sessions and PDC meetings.

In PDC meetings, the candidate's dissertation and his or her research abilities are reviewed. While making the pass or fail decision, due consideration shall be given to the fact that the candidate is the first author of the dissertation under review.

3. Dissertation Defense Session

Students who pass the Preliminary Defense participate in the Dissertation Defense Session, which is open to the public. Such students must submit the prescribed Application for Degree documents (Dissertation Defense documents) to the Dean via DAIGAKUIN-KAKARI. After this session, the Dissertation Committee meets and reviews the dissertation.

〈Dissertation Committee〉

Three or more professors of the School shall constitute the Dissertation Committee, which shall conduct the Dissertation Defense. The committee Chair shall be the candidate's supervisor (professor). In principle, the Vice-Chair shall be appointed from among the PDC members.

Typically, the Dissertation Defense Session is held in January or February. However, the DQC may elect to hold the session during a different month based on the date the Preliminary Defense is passed. A total of twenty minutes shall be allotted to each candidate—10 minutes to present the dissertation and 10 minutes for the question and answer session.

4. About the Dissertation

Osaka University Graduate School of Frontier Biosciences has established the following criteria regarding the content and format of dissertations:

(1) The dissertation must be a single, independent work by the candidate who is the sole author of the said dissertation.

(2) The dissertation must have sufficient academic value and a high degree of originality in its content.

(3) It must include a section (chapter) that would enable researchers in other fields to understand the background, purpose, relevance in its field, significance, and originality of the research.

(4)It may include content from other papers previously presented by the candidate, but it should be written as a single, integrated work.

(5)It may be written in English or Japanese (English is preferred).

(6)In addition to satisfying the above criteria, the dissertation shall consist of the following parts:

①front cover (title, author name, and month and year of completion), ②summary
③table of contents, ④body
⑤list of the author's previous academic accomplishments (papers presented, conference presentations, etc.; if the candidate is a co-author, then the candidate's main contribution must be clearly explained)

Moreover, the dissertation shall be printed on A4-sized paper and bound.

5. Other

(1)Candidates will be notified separately as to the necessary number of copies of both their Application for Degree documents and dissertation, etc. as well as the period for the submission of these items.

(2)Those who fulfilled the requirements for completion (years and credits) are able to apply for the doctor's degree within 3 years after withdrawal from graduate school.

Period of Completion and Eligible applicants

Period of Completion	Eligible Applicants			Document submission deadline (preliminary defense)
	Accelerated completions	Normal Completions	Extended Completion	
JUNE	×	×	○	About 3 months before completion
SEPTEMBER	○	○ ※	○	
DECEMBER	×	×	○	
MARCH	○	○	○	
Notes	A separate qualifications review is needed beforehand. Refer to the separate notification.	*Only third-year admitted students (October admission) are eligible for the September period.	Applicants who have exceeded the normal 5-year (3 years for third-year admitted students) completion term. Includes those applying within 3 years after earning their required credits and withdrawing from the school.	

Overall Process of Doctor's Degree Conferral

▼Submission of documents related to the preliminary defense

⇩

▼Endorses the Preliminary Defense Committee and notifies the applicant

⇩

▼ Plagiarism checking by supervisor

⇩

▼The Preliminary Defense (30-minute dissertation presentation, 30-minute Q&A–roughly 1 hour total)

⇩

▼Submission of Documents related to the Dissertation Defense

⇩

▼Dissertation Defense (public; 10-minute presentation, 10-mintue Q&A)

⇩

▼Decision on the Degree Conferral

⇩

▼Degree Conferral

【Preliminary defense】(Downlord format on the FBS message board)

1-① Application for degree(preliminary defense)
1-② Recommendation form for Preliminary Defense Committee member
2 List of Thesis
3 Summary
4 Resume
5 Recommendation for the preliminary defense from supervisor
6 Record of the applicant's research achievements
7 Approval Letter from Equal First Author
8 Name Form to be written on your transcripts in English

9 1 copy of the dissertation

10 Doctoral Thesis's Internet Publication Confirmation

11 Checklist

12 A printed report of plagiarism check by iThenticate

<After the preliminary defense>

There are three required formats to submit. Contact student services office in advance.

<After the final defense, details notify for the successful applicants.

1 Thesis data (PDF)

■Note regarding Committee Members who review Dissertations or Master's Theses

The "professors of this Graduate School" who form the Dissertation Committee shall include professors who are 1) Regular faculty and appointed faculty, 2) Concurrent professors, 3) Cooperation Program, Non-Resident Professors, Visiting Professors, Guest Professor.

Payment of Tuition Fee

1. Tuition fee must be paid by the prescribed due date (by the end of May for the first semester; by the end of November for the second semester). Osaka University uses a convenient system, the “Tuition Fee Automatic Debit System” by which tuition fees are automatically debited from the student’s bank account. Cash or money orders are not acceptable.

2. If the tuition fee is not paid by the prescribed due date, a collection letter will be sent to the student and his or her guardian Caution: If a reasonable period passes without the tuition fee being paid after the collection letter has been sent, the student will be expelled from the University. (Failure to pay the tuition fee in full by the end of the school year will result in automatic expulsion.)

3. The University has an exemption system in place to help students who have difficulty paying the tuition fee. Please refer to the section entitled, “Exemption of Tuition and Other Fees.”

4. If the student decides to take a leave of absence before a semester begins, the tuition fee for that semester will be waived. However, the tuition fee for that semester will be charged if the student decides to take a leave of absence after the semester begins. (See 5 for monthly tuition fees)

5. It is possible to pay tuition fees for only those months of a semester that the student is enrolled before withdrawing or taking a leave of absence. However, for this to apply, the student must complete the paperwork for the withdrawal or leave of absence first, then pay the applicable tuition fee by the end of April for the spring semester and by the end of October for the fall semester.

Exemption of Enrollment/Tuition fee and Scholarship

■Enrollment Fee/Tuition Fee Exemption

Osaka University has a system for waiving the enrollment fee and tuition fee as a part of its student aid program.

(1) Students eligible for enrollment fee exemption

①An individual recognized as encountering difficulty in the payment of tuition fees due to the death of the party responsible for the payment of their school expenses, or as a result of suffering from a natural disaster experienced by the individual in question or the party responsible for the payment of the individual's school expenses within a year of their entrance to the University.

②An individual encountering difficulty in the payment of tuition fees for economic reasons, and who also has achieved the minimal academic record.

(2) Students eligible for tuition fee exemption

①An individual encountering difficulty in the payment of tuition fees for economic reasons, and who also has achieved the minimal academic record.

②An individual recognized as encountering difficulty in the payment of tuition fees due to the death of the party responsible for the payment of their school expenses, or as a result of suffering from a natural disaster experienced by the individual in question or the party responsible for the payment of the individual's school expenses within the six months prior to the due date for the semester (or, in the case of the tuition fee for the first semester for a new student, within a year prior to the due date).

Information on exemptions can be found at the Student Center and on the KOAN Message Board. Students who wish to apply for exemptions should pick up a copy of the "Guide to Exemptions" available at the Student Center in mid-February (first semester exemptions) and during the first part of August (second semester exemptions).

■Deferment/Installment payments of the tuition fee

Students who receive approval for "Deferment payments of the tuition fee" may be deferred to pay their tuition fee until late September and late February for spring semester and fall semester tuition fees, respectively. In addition, students who receive approval for "Installment Payments of the tuition fee" may pay their tuition fee for that semester in six installments.

Eligible students for either of the above are the same as those described in ① under "Tuition Fee Exemption."

However, applicants for "Tuition Fee Exemption" may not apply for a "Deferment payments of the tuition fee" or "Installment payments of the tuition fee."

■Scholarship

Scholarship information can be found at "International Students"on KOAN message board.

https://koan.osaka-u.ac.jp/campusweb/campusportal.do?page=main&tabId=kj&locale=en_US

(Japanse only)

Classes

■Registration Procedure, etc.

(1) Registration

Please refer to Course List for the subjects offered at the Graduate School of Frontier Biosciences. Also, please register while taking instructions from your supervisor.

(2) How to register

Registration for subjects is done through KOAN (see 4. below), Osaka University's Student Affairs Information System. The registration period lasts for about three weeks from the beginning of the semester. Please make sure to register within this period. Details will be posted on the bulletin board of the Graduate School of Frontier Biosciences website.

(3) Note when registering:

Double-check the schedule of classes, since subjects with overlapping class times cannot be studied. Use KOAN to register for "Communication-Design Subjects" and "International Exchange Subjects" as well. Keep in mind that you also need to register for subjects such as those of Groups B–E held in labs.

(4) About KOAN (Knowledge of Osaka University Academic Nucleus)

KOAN can be accessed from both on- and off-campus computers. You need your "Osaka University Personal ID" given at the time of admission in order to log in.

A guide to using KOAN is available on the website "My Handai".

My HANDAI https://my.osaka-u.ac.jp

(5) Regarding the completion of class subjects in foreign graduate schools

Those currently studying at Graduate School of Frontier Biosciences and completing class subjects while studying in a foreign graduate school are required to complete the designated procedures and obtain approval from the dean before leaving to study abroad.

Approval for credits earned at the foreign graduate school from the faculty meeting can be obtained, and up to 10 credits can be counted in for the required credits to complete the course.

[Notes]

① The subjects taken at the graduate school studied abroad at by those who have completed the formal study abroad procedures will be judged for the recognition of those subjects and credits, based on the certification of completion issued by the aforementioned graduate school.

② The certificate of completion must indicate the class subjects, number of credits, evaluation (along with standard for evaluation), class period (start and end) and total class hours, as well as be certified by the president of the aforementioned graduate school.

③ Class subjects that were completed, resulting in the surpassing of the designated number of authorized credits will not be counted towards the credits for completion but will be registered on the school register.

■Course schedule

(1)Latest Course schedule and Course Syllabus are on FBS website (Home>Current Students>Curriculum Details).

(2)Course hour

Period	TIME		
1	8:50	～	10:20
2	10:30	～	12:00
3	13:00	～	14:30
4	14:40	～	16:10
5	16:20	～	17:50
6	18:00	～	19:30

■Procedure for conducting classes (or exams) in the case of cancellation of public transportation and issue of storm warnings

If a strike or another factor should result in Hankyu Railway suspending its service or if a “wind storm warning” or "emergency warning" [tokubetsu-keihou] is issued for Toyonaka, Suita, Ibaraki or Minoh city, classes (or exams) will be cancelled. If the trains resume operation or the storm warning is lifted, classes will be held (or cancelled) according to the table below.

Resumption/Lift	Procedure for conducting Classes
Occurs before 6 a.m.	Held as usual
Occurs before 9 a.m.	Only afternoon classes are held
Has not occurred as of 9 a.m.	No classes are held that day

Note:

1. The time of the resumption or lift is to be determined as broadcasted via radio or TV.
2. If the warning is issued while classes are in session, all classes coming after the one in which the warning was issued will also be canceled.

■ **Shuttle bus schedules**

Concerning the approaching typhoon, if a "storm warning" [boufuu-keihou] or "emergency warning" [tokubetsu-keihou] is issued for Toyonaka, Suita, Ibaraki, and/or Minoh, the campus shuttle bus schedules will be modified as noted below:

If the warning is canceled by 6:00 a.m.: **Shuttle buses will follow the normal schedule.**
If the warning is canceled by 9:00 a.m.: **Shuttle buses will resume normal schedules from 12:00 noon.**
If the warning is NOT canceled by 9:00 a.m.: **Shuttle bus services will be canceled for the day.**

Health and Safety Matters

■Physical checkups

All students are required by the School Health Law and Osaka University Health Regulations to undergo periodic physical checkups. These are held every year for several days in April or May, and a detailed schedule and other information on them is posted on the Graduate School of Frontier Biosciences website's bulletin board and other places toward the beginning of April and October.

Students can get the physical checkup at either the Health and Counseling Center (Toyonaka Main Center) or the Suita Branch Center.

Please be sure to undergo the physical checkup, because otherwise you will not be issued a Health Certificate, which is required for participating in teaching practice, hospital training, job-hunting activities, and to receive scholarships, etc.

Note: The Health and Counseling Center weekly schedule of "medical examinations & health consultations" is also available on the Center's website. *This schedule is subject to change.

■Accident Insurance

Personal Accident Insurance for Students Pursuing Education and Research (PAS)

Personal Liability Insurance for Students is a nationwide system to indemnify students for the number of days that medical treatment is needed for injury incurred during regular curricular activities, extracurricular activities, or while commuting to or from university. All students are required to participate in this insurance plan.

Students who have not bought the insurance and those who are repeating year of school are required to pay the premium as soon as possible at a post office using the Request form for tuition payment that is available at COOP offices on the Toyonaka, Suita, or Minoh campuses.

1. Duration of insurance

Admission	Duration of insurance
April	April 1 ~ March 31 of the expected year of graduation
September	September 1 ~ August 31 of the expected year of graduation
October	October 1 ~ September 30 of the expected year of graduation

The duration of insurance for students who participate in this insurance plan from the middle of a semester starts on the day following the date of premium payment.

2. Additional coverage for commuting accidents

Graduate students

Students in the 1st year of a master's course cannot make a lump payment of the insurance premiums for the1st year of master's course and the 2nd year of the doctor's course. Pay insurance premiums for the 2nd year of the doctor's course after advancing to the course.

Graduate School	Graduate School of Frontier Biosciences
1st year of doctor's course	4,050 yen/5 years
2nd year of doctor's course	3,300 yen/ 4 year
3st year of doctor's course	2,600 yen/3 years
4nd year of doctor's course	1,750 yen/2 years
5rd year of doctor's course	1,000 yen/ 1 year

3. Types and amounts of insurance
For more information, view the **Handbook for Enrollment of Personal Accident Insurance for Students Pursuing Education and Research** that you are given at the time of participation.

Type of indemnity	Types and amounts of insurance	Additional indemnity for hospitalization
During regular curricular activities or school events	Indemnity for loss of life: 20 million Insurance for disability: In relation to the degree of aftereffect: 120,000 yen - 30 million yen Injury and/or disease requiring four or more days of actual medical treatment: 3,000 yen - 300,000 yen Number of treatment days: **1** or more	4,000 yen/day (from day 1)
While commuting to and from school facilities	Indemnity for loss of life: 10 million yen Insurance for disability: In relation to the degree of aftereffect: 600,000 yen - 15 million yen Injury and/or disease requiring four or more days of actual medical treatment: 6,000 yen - 300,000 yen Number of treatment days: **4** or more	4,000 yen/day (from day 1)
During extracurricular activities at or in school facilities During the time you are in school facilities	Indemnity for loss of life: 10 million yen Insurance for disability: In relation to the degree of aftereffect: 160,000 yen - 15 million yen Injury and/or disease requiring four or more days of actual medical treatment :30,000 yen - 300,000 yen Number of treatment days: **14** or more	4,000 yen/day (from day 1)

- Accidents when engaged in an activity forbidden by the university are not covered by this insurance.
- Accidents while commuting to and from school facilities are covered as long as you observe Bicycle and Transportation Regulations.
- Only extracurricular activities outside school facilities that you have informed the university of are covered by this insurance.
- Accidents during the time you are in a dormitory on the campus are not covered by this insurance.

4. Procedures for insurance claim
Documents necessary for claiming insurance are available at the COOP offices on the Toyonaka, Suita, and Minoh campuses.
If an accident that may be covered by this insurance happens, contact the COOP office as soon as possible. Information regarding the date, location, and injury or disease must be communicated to the insurance company **within 30 days of the accident**. If this is not communicated within 30 days, the insurance company may not pay.
Please submit the insurance claim form to the COOP Office after the treatment has finished.

5. Liability Insurance for Students Pursuing Education and Research (LSR)
Personal Liability Insurance for Students --in Japanese, "Gakusei Kyoiku Kenkyu Baisho Sekinin Hoken" [short form: "Gakkenbai"]-- insures one against personal liability claims in the case of injury to someone or damage to another person's property during regular curricular activities, school events, internships, nursing care recognized as an extra curricular activity, teaching practice, childcare practice, or volunteer activities as well as during commuting to and from the sites of such activities. (However, medical related training such as clinical practice or nursing practice are excluded from this coverage.) **This plan is applied to students who participate in Personal Accident Insurance for Students Pursuing Education and Research (PAS).** The premium is 340 yen per year (course A). Documents necessary for application and insurance claims are available at COOP offices on the Toyonaka, Suita, and Minoh campuses. OU students are eligible to participate in only course A.
Contact:

Insurance Section, General Affairs Division,Toyonaka COOP Office, 4F, Welfare Center, Toyonaka Campus	Tel: 06-6850-6114
Insurance Section, COOP Office, School of Engineering, Bldg. C8, Suita Campus (temporary location due to seismic retrofitting at the Welfare Center until the spring in 2017)	Tel: 06-6877-6509
Insurance Section, Minoh COOP Office, 1F, Welfare Center, Minoh Campus	Tel: 072-730-2743

Various Procedures and Academic Matters

■Contacting students

Students will receive various notifications through the FBS website's bulletin board or the KOAN message board. Please check these websites regularly. They can also be accessed off campus.

Depending on the matter, students will be contacted individually via telephone or email. Therefore, please make sure your updated contact information is always registered on KOAN. As for emails, you will be contacted at the address given to you by FBS. As such, if you cannot access this email account regularly, please have emails to this address transferred to another address to ensure that we have no trouble contacting you.

■Academic-related procedures

(1) Leaves of absence (required form: Request for Leave of Absence〔KYUGAKU-NEGAI〕)

For illness or other reasons requiring the student to discontinue his or her studies for more than 3 months, a leave of absence may be granted with the Dean's approval.

a. The period of absence shall not be considered into the calculation of the students' enrollment years.

b. The leave of absence may not be longer than 5 years (3 years for students admitted into the third year of the course).

c. Tuition fee for the leave of absence will vary with the timing of the request, since tuition fees are incurred on a semester basis (first semester: May; second semester: November)

1. Requests made by March/September: tuition for the months comprising the leave of absence is waived (monthly payments allowed)
2. Requests made in April/October for leaves of absence starting May/November: Excluding the tuition fee for April/October, tuition fee for the months comprising the leave of absence is waived (monthly payments allowed)
3. Requests made in May/November or later: the full tuition fee for that semester will be incurred by the student.

d. Regardless of the above deadlines, as a rule the procedure to request a leave of absence should be completed at least one month prior to the leave of absence.

(2) Withdrawals (required form: Request to Withdraw〔TAIGAKU-NEGAI〕)

Students may terminate their studies at the School to pursue employment opportunities or for other reasons after receiving permission from the Dean.

As a rule, the request should be made and permission received at least one month before the planned date of withdrawal.

a. Withdrawal will be approved upon the condition that the required portion of the tuition fee for that semester is paid in advance.

1. Requests made in middle of April/October for withdrawal starting May/November: the tuition for April/October must be paid.
2. Requests made in May/November or later: the full tuition fee for that semester will be incurred by the student.

b. The Student ID should be returned by the withdrawal date.

(3) Study Abroad (Inter-University/Faculty (International) Student Exchange Agreement) (required forms: Study Abroad Request + Study Abroad Notification)

Students who wish to study abroad (as an exchange student) at a graduate school based on an (Inter-University/Faculty) Student Exchange Agreement between the University and a foreign country must receive permission from the Dean at least one month prior to the start of the study abroad.

(4) Study Abroad (Private Study Abroad) (required forms: Request for Leave of Absence + Study Abroad Notification)

Students who wish to study abroad privately for language studies, etc. for three or more months may request a leave of absence to do so (Study Abroad on Leave)

(5) Graduate School Transfers (required form: Graduate School Transfer Request)

Students who wish to transfer to another Osaka University Graduate School during their period of enrollment at the Graduate School of Frontier Biosciences (e.g., to a different Graduate School's doctor course after receiving their master's here) should make the request after checking with the Graduate School's office about the requirements and application deadline.

If the student advances (is admitted into) to a different Graduate School by taking an entrance examination instead of the Graduate School entrance exam, he or she must pay the entrance examination fee and enrollment fee.

(6) Reentry after a leave of absence (required forms: Reentry Request + medical certificate if applicable)

When the reason for the leave of absence has been resolved before the end of the period comprising the leave of absence and the student wishes to return to the school, request for such should be made and approval obtained by the end of the month before reentry.

If the leave was based on doctor-approved medical reasons such as illness, please submit the doctor's medical certificate along with the "Reentry Request."

*Tuition fee will be incurred at the start of the month of reentry.

*The above procedure is not necessary if the reentry is after the completion of the leave of absence.

(7) Student Surname (or first name) Changes or Change of Guarantor, etc. (required form: Notification of Transfer of Family Register (Name Change))

Please make requests as needed to change your school register information (name as recorded in KOAN, etc.) for name changes in the event of a family register transfer, etc.

(8) Change of supervisor (required forms: Supervisor (Sub supervisor) Change Notification)

If due to certain circumstances you wish to change your home lab, etc., you may do so after receiving approval from the academic staff concerned.

(9) Change of Address

Students who change their mailing address or phone number, etc. need to promptly revise this information on KOAN via the “Student Address Registration” page. The contact address/phone number registered on this page is needed to contact the student about tuition fee payment and other matters.

(10) Approval of study abroad credits (required forms: Request for Approval of Study Abroad Credits, transcript from the host university, syllabi or other materials explaining the content of the lectures)

If you would like the credits earned studying abroad to count toward the required completion credits at the School, please submit the required forms almost immediately after you return. The transcript must show the name, number of credits, grade received (along with the grading scale), length of period studied (period start and end dates), and the total class hours for each subject. It must also have the official signature/seal of the head of the issuing graduate school.

Moreover, credits earned in excess of the prescribed 10 credits will not count toward those required for course completion, but the subject(s) will be recorded in the school register.

■Student ID card

Student ID card is not only the proof of the student’s enrollment at Osaka University but also an important tool for using the Automated Certificate Issuing Machines and to enter the library. Therefore, you should always keep it with you.

If the card becomes defaced or is lost, apply for a new one at the Student Center immediately.

■Certificate Issuance

1. Issuance via Automatic Certificate Issuing Machines (ACIM)

【Certificates that can be issued】

Type of Certificate	Note
Enrollment Certificate	
Transcript	
Diploma (undergraduate)/Completion Certificate (master’s)	Limited to alumni of Osaka University
Student Discount Card (Student Passenger Fare Discount Card)	Limit 3 per day, 10 per year.
Health Certificate	This certificate cannot be issued for some students by this machine. Contact a campus health center for details.

【Location and hours ACIM can be used】

Campus	Location	Hours
SUITA	Suita Student Center 1st floor lobby	8:30 – 18:00
	Medical School 1st floor entrance	8:30 – 17:00
	School of Engineering U1M building	9:00 – 17:00
TOYONAKA	Toyonaka Student Center 2nd floor lobby	8:30 – 18:00
	Liberal Arts and Sciences Organization Building A 2nd Floor lobby	8:30 – 17:00

(2) Issuance by Student Services Office (DAIGAKUIN-KAKARI)

If the certificate cannot be issued at an ACIM, please fill out and submit a certificate request form at DAIGAKUIN-KAKARI. *If you live on a campus far from DAIGAKUIN-KAKARI, a request can be sent via email. In this case, the email must be sent through an “fbs” (Frontier Biosciences) domain email address in order to verify your identity. Otherwise, you can attach a scanned copy of your ID (Student ID, etc.) to the email.

Please allow for a reasonable turnaround time, because depending on the time of year and type of certificate it may take a while to prepare it, although general certificates are sent the following day.

(3) Certificate as a MEXT Student

Fill out and submit “Application as a MEXT Student” form at DAIGAKUIN-KAKARI. It takes 7 days to be issued because this certificate is issued by the Department of International Affairs of Osaka University. “Application as a MEXT Student” form is available on FBS website “Certificate” page.

List of faculty in FBS

1．Regular Faculty

(2019 .April)

Research Group	Name of faculty	Laboratory
Nanobiology Laboratories	Prof. Akihoiko ISHIJIMA	Nano Biophysics
	Prof. Masahiro UEDA	Single molecule biology
	Prof. Toshio YANAGIDA	Biological Dynamics Imaging Center
	A. Prof. Shuji TACHIBANAKI	Sensory transduction Group
	A. Prof. Tohru MINAMAINO	Protonic Nano Machine Group
	A. Prof. Hajime FUKUOKA	Nano Biophysics
Biomolecular Networks Laboratories	Prof. Yasushi HIRAOKA	Nuclear Dynamics
	Prof. Seiji TAKASHIMA	Department of Medical Biochemistry
	Prof. Tatsuro FUKAGAWA	Laboratory of Chromosome Biology
	Prof. Makoto TACHIBANA	Laboratory of Epigenome Dynamics
	A. Prof. Haruhiko ASAKAWA	Nuclear Dynamics Group
	A.Prof. Yasunori SHINTANI	Department of Medical Biochemistry
	A. Prof. Tetsuya HORI	Laboratory of Chromosome Biology
	A. Prof. Koji OKAMOTO	Laboratory of Mitochondrial Dynamics
Integrated Biology Laboratories	Prof. Toru NAKANO	Department of Pathology
	Prof. Takeshi YAGI	KOKORO Biology group
	Prof. Shigeru KONDO	Laboratory of Pattern Formation
	Prof. Tamotsu YOSHIMORI	Laboratory of Intracellular Membrane Dynamics
	Prof. Toshie KAI	Laboratory of Germline Biology
	A. Prof. Jun KATAHIRA	Department of Pathology
	A. Prof. Takeshi KITSUKAWA	KOKORO Biology group
	A. Prof. Masakatsu WATANABE	Laboratory of Pattern Formation
	A. Prof. Maho HAMASAKI	Laboratory of Intracellular Membrane Dynamics
Organismal Biosystems Laboratories	Prof. Sachiko TSUKITA＊	Biological Science Group
	Prof. Masaru ISHII	Chromosome function and Regulation
	Prof. Hiroshi SASAKI	Laboratory for Embryogenesis
	Prof. Takashi NAGASAWA	Stem Cell Biology and developmental Immunology
	A. Prof. Atsushi TAMURA	Biological Science Group
	A. Prof. Masafumi SAIJO	Human Cell Biology Group

Neuroscience Laboratories	Prof. Izumi OHZAWA＊ Prof. Ichiro FUJITA* Prof. Nobuhiko YAMAMOTO* Prof. Shigeru KITAZAWA A. prof. Yasushi KOBAYASHI A. Prof. Hiroshi TAMURA A. Prof. Ryuuichi SHIRASAKI A. Prof. Keiko TOMINAGA A. Prof. Tamami NAKANO	Visual Neuroscience Laboratory Cognitive Neuroscience Group Cellular and Molecular Neurobiology Group Dynamic Brain Network Laboratory Visual Neuroscience Laboratory Cognitive Neuroscience Group Cellular and Molecular Neurobiology Group Synaptic Plasticity Group Dynamic Brain Network Laboratory
Biophysical Dynamics Laboratories	Prof. Takashi KURAHASHI Prof. Yasushi INOUYE Prof. Shinichi KIMURA A. Prof Jyunji WATANABE A. Prof. Hiroko TAKEUCHI A. Prof. Hidekazu ISHITOBI	Nano Physiology & Neuroscience Nano Biophotonics Group Photophysics Laboratory Photophysics Laboratory Nano Physiology & Neuroscience Nano Biophotonics Group
Biomedical Engineering Laboratories (affiliates)	Prof. Nobuyuki TAKAKURA Prof. Eiji HARA Prof. Atsushi NAKAGAWA Prof. Shunichi KURODA A. Prof. Shigeyuki NADA A. Prof. Mamoru SUZUKI A. Prof. Toshihide OKAJIMA A. Prof Akira KINJO＊ A.Prof. Yohei Miyanoiri	The department of Signal Transduction Department of Molecular Microbiology Laboratory of Supra Molecular Crystallography Department of Biomolecular Science and Reaction Department of Oncogene Research Laboratory of Supra Molecular Crystallography Department of Biomolecular Science and Reaction Laboratory of Protein Informatics Laboratory of Advanced Protien Characterization
Building Brock Science Joint Research Chair	Prof. Mitsuru AKASHI＊	We will develop biomaterials that function in vivo by making use of chemistry and macromolecular science, and biological substitution system by cell manipulation. Three-dimensional biological tissue construction will be developed into DDS research, development of an alternative method of animal experimentation, regenerative medicine

2. Cooperation Program, Non-Resident Professors, Visiting Professors, Guest Professors

Organization	Name of faculty	Research Field
National Institutes of biomedical Innovation, Health and Nutrition	Guest Prof. Kenji MIZUGUCHI	Bioinformatics and computational biology research into drug discovery and development (with special emphasis on early-stage target discovery and toxicity prediction). Our research involves both the analysis of real-life experimental data and the development of novel computational techniques, aiming to establish systems approaches to drug discovery.
RIKEN Center for Biosystems Dynamics Research	Guest Prof. Makoto TAIJI Guest Prof. Yasushi OKADA	Laboratory for Computational Molecular Design Laboratory for Cell Polarity Regulation
RIKEN Center for Biosystems Dynamics Research	Guest Prof.Hiroshi HAMADA Guest Prof. Yu-Chiun Wang	My lab studies how left-right asymmetries develop in the mouse embryo. In particular, we focus on two types of cilia that are required for left-right symmetry breaking: rotating cilia that generate leftward fluid flow, and immotile cilia that sense the fluid flow. We also study the role of maternal epigenetic regulators in pre-implantation development. We address these questions by integrating live imaging, structural biology, fluid dynamics and mathematical modeling.
National Institute of Information and Communication Technology (Centre for Information and Neural Network)	Guest Prof. Eiichi Naitou Guest Prof. Masahiko Haruno	Human Sensorimotor Manipulative Neuroscience Computational Social Neuroscience

3．Concurrent Post

Organization	Name of Faculty	Majors / courses
Graduate School of Science	Prof. Yasuhiro AKUTSU*	Quantum Physics,Department of Physics
	Prof. Takahide KON	Laboratory of Molecular Genetics
	Prof. Kenji MATSUNO	Laboratory of Cell Biology
	Prof. Katsumi IMADA	Department of Macromolecular Structure
Graduate School of Medicine	Prof. Iishiro SHIMOMURA	Metabolic Medicine, Department of Internal Medicine
	Prof. Yasuhi OKAMURA	Integrative Physiology
	Prof. Toshihide YAMASHITA	Department of Molecular Neurosciences
	Prof. Hiromichi SATO*	Cognitive and Behavioral Neuroscience, Department of Health and Sport Sciences
	AProf. Tatsuki SUGIYAMA	Stem Cell Biology and developmental Immunology
Graduate School of Dentistry	Prof. Kenji NODA	Center for Frontier Oral Science/Molecular Medicine
Graduate School of Phermaceutical science	Prof. Takeshi DOI*	Molecular Medicine
Graduate School of Engineering	Prof. Tetsuya YAGI *	Bio systems and Devices Area
	Prof. Kunio Awazu	Medical Beam Physics Laboratory
	Prof. Michiya MATSUSAKI	Industrial Organic Chemistry
Graduate School of Engneering Scinece	Prof.Masahito TAYA*	Biochemical materials Engineering Group
Graduate School of Information Science	AProf. Norikazu ICHIHASHI	Symbiotic Network Design
United Graduate School of Child Development	Prof. Makoto SATO	Department of Anatomy and Neuroscience
RIMD (Research Institute for Microbial Diseases)	Prof. Hiroaki MIKI	Department of Cellular regulation
	Prof.Masahiro Yamamoto	Immunoparasitology
	Prof. Yoshiharu MATSUURA*	Department of molecular virology
	Prof. Sho YAMASAKI	Molecular Immunology
	Prof. Tarou Kinoshita	Immunoregulation
	Prof. Tetsuya Iida	Department of Infection Metagenomics

The Institute of Scientific and Industrial research	Prof. Kenji NAGAI	Department of Biomolecular Science and Engineering
Institute for Protein Research	Prof. Toshifumi TAKAO	Laboratory of Protein Profiling and Functional Proteomics
	Prof. Juinichi TAKAGI	Laboratory of Protein Synthesis and Expression
	A.Prof. Kenji IWASAKI	Laboratory of Protein Synthesis and Expression
	Prof.Takahisa FURUKAWA	Laboratory of molecular and Developmental Biology
Cyber Media Centre	Prof. Makoto KIKUCHI	Large-Scale Computational Science Research Division
	AProf. Hajime YOSHINO	
Research Centre for Ultra-High Voltage Electron Microcscopy	Prof. Kaoru MITSUOKA	cryo-electron microscopy, structural biology
IFReC (Immunology Frontier Research Centre)	Prof. Shizuo AKIRA	Host Defense
	Prof. Shigekazu NAGATA*	Experimental Immunology
	Prof. Tadamitu KISHIMOTO*	Biochemistry & Immunology
	Prof. Tomohiro KUROSAKI*	Immune Regulation
	Prof. Ken ISHII*	Lymphocyte Differentiation
	Prof. Keizo NISHIKAWA	Vaccine Science
OTRI (Open and Transdisciplinary Research Initiatives)	Prof. Yoshichika YOSHIOKA	Biofunctional Imaging
	Prof. Coban Cevayir	Malaria Immunology
	A Prof. Diego Diez	Quantitative Immunology Research Unit
CEALAS (Center for educationin Liberal Arts and Science)	Prof. Satoshi SHIMEGI	Cognitive and Behavioral Neuroscience

＊Contact directly for your prospective supervisor, to make sure his/her term of post