

# ***Student Handbook 2022***

**Graduate School of Pharmaceutical Sciences  
& Faculty of Pharmaceutical Sciences  
Tohoku University**

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## Events Calendar

Specific dates and details will be posted on noticeboards as events approach, so be careful to check noticeboards regularly.

|           | (Faculty)   | (Graduate School)  |
|-----------|---|--|
| April     | <ul style="list-style-type: none"> <li>• Faculty Entrance Ceremony</li> <li>• Orientation for new students</li> <li>• Guidance for Second Year students</li> <li>• Guidance for Third Year students</li> <li>• Guidance for Fourth Year Department of Pharmacy students</li> <li>• Guidance for Fifth Year Department of Pharmacy students</li> <li>• Guidance for Sixth Year Department of Pharmacy students</li> <li>• Announcement of class schedule</li> <li>• First Semester classes commence</li> <li>• Online course registration</li> </ul> | <ul style="list-style-type: none"> <li>• Graduate School Entrance Ceremony</li> <li>• Orientation for new students</li> <li>• Announcement of class schedule</li> <li>• First Semester classes commence</li> <li>• Online course registration</li> <li>• Submission of Japan Student Services Organization (JASSO) Scholarship Recommendation Application Forms (enrolled students)</li> <li>• Submission of Application for Doctoral Thesis Preliminary Review (students who are to complete the Doctoral Course in September)</li> </ul> |
| May       | <ul style="list-style-type: none"> <li>• Regular health check-ups (all students)</li> </ul>   | <ul style="list-style-type: none"> <li>• Announcement of Application Guidelines for Master's Course (admission by recommendation/general admission/ special selection)</li> <li>• Japan Student Services Organization (JASSO) Scholarship Recommendations (enrolled students)</li> <li>• Regular health check-ups (all students)</li> </ul>  |
| June      | <ul style="list-style-type: none"> <li>• Anniversary of the founding of Tohoku University (June 22)</li> </ul>  | <ul style="list-style-type: none"> <li>• Acceptance of Applications for Admission by Recommendation to Master's Course</li> <li>• Anniversary of the founding of Tohoku University (June 22)</li> <li>• Submission of master's thesis abstract and thesis (students who are to complete the Master's Course in September)</li> <li>• Memorial service for laboratory animals</li> </ul>  |
| July      | <ul style="list-style-type: none"> <li>• Memorial service for laboratory animals</li> <li>• Field allocation explanation meeting (Third Year students)</li> </ul>   | <ul style="list-style-type: none"> <li>• Entrance Examination for Admission by Recommendation to Master's Course and announcement of successful candidates</li> <li>• Acceptance of Applications to Sit the Examination for Admission to Master's Course (general/special selection)</li> <li>• Submission of doctoral thesis abstract and thesis (students who are to complete the Doctoral Course in September)</li> </ul>   |
| August    | <ul style="list-style-type: none"> <li>• Regular examinations for major subjects</li> <li>• Submission of Department Request (Second and Third Year students)</li> <li>• Submission of Field allocation Request (Third Year students)</li> <li>• Reexaminations for major subjects</li> </ul>   | <ul style="list-style-type: none"> <li>• Examination for Admission to Master's Course students (general/special selection)</li> <li>• Second Year Master's Course and Third Year Doctoral Course final examinations (students who are to complete their course in September)</li> </ul>  |
| September | <ul style="list-style-type: none"> <li>• Submission of Application for Exemption from Payment of Second Semester Tuition Fees / Application for Postponement of Payment or Payment in Monthly Installments of Second Semester Tuition Fees</li> <li>• Finalization of department (Third Year students)</li> <li>• Finalization of field allocation (Third Year students)</li> <li>• Guidance for each department (Third Year students)</li> </ul>   | <ul style="list-style-type: none"> <li>• Announcement of successful candidates passing the Examination for Admission to Master's Course (general/special selection)</li> <li>• Submission of Application for Exemption from Payment of Second Semester Tuition Fees / Application for Postponement of Payment or Payment in Monthly Installments of Second Semester Tuition Fees</li> <li>• Submission of doctoral thesis (students who are to complete the Doctoral Course in September)</li> </ul>                                       |

|          | (Faculty)   | (Graduate School)   |
|----------|---|---|
| October  | <ul style="list-style-type: none"> <li>• Second Semester classes commence</li> <li>• Online course registration</li> </ul>  | <ul style="list-style-type: none"> <li>• Second Semester classes commence</li> <li>• Submission of Application for Doctoral Thesis Preliminary Review (students who are to complete the Doctoral Course in March)</li> <li>• Submission of Japan Student Services Organization (JASSO) Scholarship Reservation Applications and recommendations</li> </ul>  |
| November | <ul style="list-style-type: none"> <li>• University Festival</li> <li>• Disaster evacuation drills</li> <li>• Commencement of acceptance of applications to sit the National Examination for Pharmacists (Sixth Year Department of Pharmacy students)</li> </ul>  | <ul style="list-style-type: none"> <li>• University Festival</li> <li>• Disaster evacuation drills</li> <li>• Acceptance of applications to sit Examination for Admission to Pharmacy Major Doctoral Course</li> </ul>  |
| December | <ul style="list-style-type: none"> <li>• Assessment of suitability for Japan Student Services Organization (JASSO) Scholarships</li> <li>• Regular examinations for major subjects (Fourth Year Department of Pharmacy students)</li> <li>• Reexaminations for major subjects (Fourth Year Department of Pharmacy students)</li> <li>• CBT (Fourth Year Department of Pharmacy students)</li> <li>• Themed Research Presentation Meeting (Sixth Year Department of Pharmacy students)</li> <li>• Submission of Themed Research Thesis (Sixth Year Department of Pharmacy students)</li> </ul> | <ul style="list-style-type: none"> <li>• Assessment of suitability for Japan Student Services Organization (JASSO) Scholarship</li> <li>• Examination for Admission to Pharmacy Major Doctoral Course and announcement of successful candidates</li> </ul>  |
| January  | <ul style="list-style-type: none"> <li>• OSCE (Fourth Year Department of Pharmacy students)</li> <li>• Supplementary classes for major subjects</li> </ul>  | <ul style="list-style-type: none"> <li>• Acceptance of applications to sit Examination for Admission to Master's Course (special selection) and Examination for Admission to Doctoral Course (transfer/special selection)</li> <li>• Submission of master's thesis abstract and thesis</li> <li>• Submission of doctoral thesis abstract and thesis</li> </ul>  |
| February | <ul style="list-style-type: none"> <li>• Regular examinations for major subjects (First – Third Year students)</li> <li>• Reexaminations for major subjects (First – Third Year students)</li> <li>• Submission of Themed Research Thesis (Fourth Year Department of Pharmaceutical Sciences students)</li> </ul>   | <ul style="list-style-type: none"> <li>• Examination for Admission to Master's Course (special selection) and Examination for Admission to Doctoral Course (transfer/special selection) and announcement of successful candidates</li> <li>• Submission of doctoral thesis</li> <li>• Third Year Doctoral Course final examinations</li> <li>• Submission of Application for Exemption from Repayment of Japan Student Services Organization (JASSO) Scholarship</li> </ul> |
| March    | <ul style="list-style-type: none"> <li>• National Examination for Pharmacists (Sixth Year Department of Pharmacy students)</li> <li>• Themed Research Presentation Meeting (Fourth Year Department of Pharmaceutical Sciences students)</li> <li>• Degree Conferment Ceremony</li> <li>• Submission of Application for Exemption from Payment of First Semester Tuition Fees / Application for Postponement of Payment or Payment in Monthly Installments of First Semester Tuition Fees</li> </ul>   | <ul style="list-style-type: none"> <li>• Second Year Master's Course final examination</li> <li>• Degree Conferment Ceremony</li> <li>• Submission of Application for Exemption from Payment of First Semester Tuition Fees / Application for Postponement of Payment or Payment in Monthly Installments of First Semester Tuition Fees</li> <li>• Exemption from Repayment of Japan Student Services Organization (JASSO) Scholarship recommendations</li> </ul>           |

# Faculty of Pharmaceutical Sciences Curriculum

## I. Assignment of Departments

Before the commencement of the Second Semester in their Third Year, students will be assigned a department in accordance with the wishes of each student and their academic performance to date.

|          |  |                        |
|----------|--|------------------------|
| Capacity | Department of Pharmaceutical Sciences (four-year course) | maximum of 60 students |
|          | Department of Pharmacy (six-year course)                 | maximum of 20 students |

## II. General Education Subjects and Specialized Subjects

### 1. Subjects

(1) The Curriculum of the Faculty of Pharmaceutical sciences shall comprise the following subject categories.

- General Education Subjects: Semesters in which General Education Subjects are Offered (p. 8)
- Specialized Subjects: Semesters in which Specialized Subjects are Offered (p.11)
- Teacher Training-related subjects prescribed under the Education Personnel Certification Act (p.125)

\*“Semester” is an academic terms of six months (half an academic year). The Department of Pharmaceutical Sciences (four-year course) comprises 8 semesters, and the Department of Pharmacy (six-year course) comprises 12 semesters.

(2) General Education Subjects are divided into the following categories, and subjects are offered within each of these categories.

- |                              |                                 |                                       |
|------------------------------|---------------------------------|---------------------------------------|
| ○ Basic Educational Subjects | ○ Advanced Educational Subjects | ○ Common Subjects                     |
| ▪ Anthropology               | ▪ Humanities                    | ▪ Conversion/Small Class Courses      |
| ▪ Social Theory              | ▪ Social Sciences               | ▪ Foreign Languages                   |
| ▪ Nature Theory              | ▪ Natural Sciences              | ▪ Information Subjects                |
|                              | ▪ Applied Sciences              | ▪ Health and Physical Education       |
|                              |                                 | ▪ Subjects for International Students |

(3) Specialized Subjects are divided into the following categories, and subjects are offered within each of these categories.

- |   |                                   |
|---|-----------------------------------|
| ○ Department of Pharmaceutical Sciences | ○ Department of Pharmacy          |
| ▪ Basic Educational Subjects            | ▪ Basic Educational Subjects      |
| ▪ Advanced Educational Subjects         | ▪ Advanced Educational Subjects   |
| ▪ Researcher Educational Subjects       | ▪ On-Site Training Subjects       |
|   | ▪ Researcher Educational Subjects |

### 2. Semesters in which Subjects are Offered

#### (1) General Education Subjects

General Education Subjects are offered in the First through Third semesters and are taught on the Kawauchi-kita Campus.

For the semesters in which individual subjects are offered, please refer to “Semesters in which General Education Subjects are Offered (p. 8)”.

#### (2) Specialized Subjects

Specialized Subjects are offered from the First Semester. Specialized Subjects offered in the First through

Third semesters and are taught mainly on the Kawauchi-kita Campus, and subjects offered from the Fourth Semester onwards are taught at the Faculty of Pharmaceutical Sciences.

For the semesters in which individual subjects are offered, please refer to “Semesters in which Specialized Subjects are Offered (p.11)”.

### 3. How to Take Classes

The maximum number of credits for which a student may register to study in each of the First through Fourth Semesters shall be limited to around 30 in order to ensure appropriate study of each subject; provided, however, that this does not include required Specialized Subjects, audited subjects, Teacher Training-related subjects, or subjects that the student is re-taking.

#### (1) General Education Subjects

The following is an explanation of the method for acquiring credits required from General Education Subjects (43 or more credits) in order for students to be able to take subjects offered from the Second Semester of their Third Year (Sixth Semester onwards).

Note that the method for acquiring credits required for graduation is the same.

#### 1) Basic Educational Subject Categories (6 or more credits)

- (i) 2 or more credits from elective subjects offered under Anthropology: “World of Thought and Ethics”, “World of Literature”, “World of Expression”, “World of Fine Art”, or “People and Culture”.
- (ii) 2 or more credits from elective subjects offered under Social Theory: “History and Human Society”, “Economics and Society”, “Law, Politics and Society”, “Study of Society”, or “Gender and Human Society”.
- (iii) 2 or more credits from elective subjects offered under Nature Theory: “Study of Nature”, “Scientific Technology and Energy”, “Life and Nature”, “Nature and Environment”, and “Science and Information”.

#### 2) Advanced Educational Subject Categories (18 or more credits)

- (i) 2 or more credits from elective subjects offered under Humanities: “Logic”, “Philosophy”, “Literature”, “Religion”, “Education”, “History”, or “Linguistics”.
- (ii) 2 or more credits from elective subjects offered under Social Sciences: “Sociology”, “Psychology”, “Law”, “Japanese Constitutional Law”, “Politics”, “Economics”, “Cultural Anthropology”, or “Human Geography”.
- (iii) 2 or more credits from elective subjects offered under Natural Sciences/Mathematics: “Foundation of Calculus”, “Calculus A”, “Calculus B”, “Calculus C”, “Calculus D”, “Foundation of Linear Algebra”, “Linear Algebra A”, “Linear Algebra B”, or “Probability & Statistics”.

Note that not all of the above subjects are necessarily offered by the Faculty of Pharmaceutical Sciences, and so when that is the case, students must take the subject in another faculty.

- (iv) 2 or more credits from elective subjects offered under Natural Sciences/Physics: “Physics A”, “Physics

B-1, B-2”, “Physics C”, or “Physics D”.

(v) 4 or more credits from elective subjects offered under Natural Sciences/Chemistry: “Chemistry A”, “Chemistry B”, or “Chemistry C”.

(vi) 4 or more credits from elective subjects offered under Natural Sciences/Biology: “Biology A”, “Biology B”, or “Biology C”.

(vii) “Introductory Science Experiments-1, -2” are required subjects offered under Natural Sciences/Science Experiments.

### 3) Common Subject Categories (15 or more credits)

(i) “Introductory Seminar (2 credits)” offered under Conversion Courses/Small Class Courses is a required subject. Students are required to choose 1 subject from Foundation Seminar.

(ii) The following 8 subjects (4 credits) offered under the Foreign Languages/English are required subjects: “English A1-1, A1-2”, “English A2-1, A2-2”, English B1-1, B1-2”, and “English B2-1, B2-2”.

In addition, students are required to take 1 or more credits from the elective subjects “English C1-1, C1-2” or “Practical English Skills 1-1, 1-2” offered under Foreign Languages/English, and 1 or more credits from the elective subjects “English C2-1, C2-2” or “Practical English Skills 2-1, 2-2”.

In addition, “English A1” (1 credit), may be substituted with “English A1-1, A1-2” (0.5 credits each). The same applies to “English A2, B1, B2, C1, C2” and “Practical English Skills 1, 2”. Each of these subjects may be substituted with “Subject Name-1, -2”.

(iii) Students are required to take 4 or more credits from the following 6 elective subjects offered under Foreign Languages/Introductory Languages: “Introduction to German I-1, I-2 (2 credits)/ Introduction to German II-1, II-2 (2 credits)”, “Introduction to French I-1, I-2 (2 credits)/ Introduction to French II-1, II-2 (2 credits)”, “Introduction to Russian I-1, I-2 (2 credits)/ Introduction to Russian II-1, II-2 (2 credits)”, “Introduction to Spanish I-1, I-2 (2 credits)/ Introduction to Spanish II-1, II-2 (2 credits)”, “Introduction to Chinese I-1, I-2 (2 credits)/ Introduction to Chinese II-1, II-2 (2 credits)”, and “Introduction to Korean I-1, I-2 (2 credits)/ Introduction to Korean II-1, II-2 (2 credits)”.

(iv) “Sports A (1 credit)” and “Health (2 credits)” offered under Health and Physical Education are required subjects.

(v) Subjects offered under Subjects for International Students are subjects for international students only. Up to 4 in these subjects may be recognized as credits for a Foreign Language (Introductory Language) subject.

### 4) Other Subjects (4 or more credits)

Students are required to take 4 or more credits from Natural Sciences and/or Applied Sciences under the Developmental Subject category and/or Information Subjects under the Common Subject category.

### (2) Specialized Subjects

The following 3 conditions are prescribed for taking Specialized Subjects. Specialized Subjects are to be taken in accordance with Appendixes 2 and 3 of the Rules for Taking Classes in Tohoku University Faculty of Pharmaceutical Sciences.

1) Conditions for taking subjects offered from the Second Semester of students' Third Year (from Sixth Semester)

- Students are required to acquire 66 or more credits from Basic Educational Subjects. Students who do not fulfill this condition may not advance.

2) Conditions for Department of Pharmacy students to take subjects offered under On-Site Training Subjects (from Eighth Semester)

- Students are required to acquire 45 or more credits from Advanced Educational Subjects. Students who do not fulfill this condition may not advance.

In the case that a student does not pass CBT/OSCE, they may not undergo Pharmacy Practice in Hospital or Pharmacy Practice in the Community

3) Conditions for Graduation

- Department of Pharmaceutical Sciences students are required to acquire 100 or more credits (66 credits for Basic Educational Subjects, 14 credits for Advanced Educational Subjects, and 20 credits for Researcher Educational Subjects).

- Department of Pharmacy students are required to acquire 160 or more credits (66 credits from Basic Educational Subjects, 45 credits from Advanced Educational Subjects, 27 credits from On-Site Training Subjects, and 22 credits from Researcher Educational Subjects).

4. Procedures for Taking Classes

In order to take classes, students must carry out the required procedures for taking those subjects. Paying careful attention to the conditions for graduation, students are to formulate a plan for taking subjects and register for the subjects they wish to take by the class registration deadline. Please note that it is not possible to withdraw from a subject after the period for change of class registration.

Students may not re-take subjects for which they have already acquired credits.

Detailed instructions regarding procedures for taking classes shall be posted on noticeboards.

5. Examinations

(1) General Education Subjects

Examinations for General Education Subject are not held on scheduled examination days but rather during class time or supplementary class periods in accordance with the instructions of the class instructor.

For details about make-up examinations and other examination-related information, please refer to the Guidelines for Taking General Education Subjects.

(2) Specialized Subjects



### 1) Regular Examinations

Examinations for Specialized Subjects are held at the end of the period in which each subject is offered. Information about examination schedules, etc., shall be posted on noticeboards; provided, however, that examinations may be held at any time when deemed necessary by the Class Instructor.

In addition, students who do not sit for the regular examination may not re-sit the examination; provided, however, that this shall not apply to students who sit make-up examinations.

For details about make-up examinations, re-examinations, and other examination-related matters, please refer to the Rules for Taking Courses in Tohoku University Faculty of Pharmaceutical Sciences.

### 2) Attitude when Sitting Examinations

- (i) In the examination room, be sure to follow the instructions of the supervising instructor.
- (ii) Seats are designated in accordance with student ID numbers (excluding examinations held on the Kawauchi-kita Campus).
- (iii) Students must bring their “Student ID Card” with them to examinations.
- (iv) During examinations, students may not place any instruments on their desk other than pencils, an eraser, and a watch (excluding watches with functions other than telling the time). With regard to examinations that do permit usage of instruments other than those listed above, notification will be given to students prior to the examination in question.
- (v) Students must hand in their answer sheets, including blank answer sheets. Students may not take even blank answer sheets out of the examination room.
- (vi) Students must not undertake cheating behavior or behavior that may be construed as cheating during examinations. Students who cheat in examinations shall be disciplined and their credits for all the subjects taken in the semester in question shall be voided.

### 3) Examination Results

Examination results (Pass/Fail) shall be posted on noticeboards; after students who failed have re-sat the examination, students may check their results for each semester on the Student Affairs Information System.

### 4) Objections to Performance Evaluations

In the case that a student questions their examination results, they may request an explanation from their class instructor within a period of 2 weeks from the date on which examination results are announced. However, if the student does not approach their instructor within the prescribed period but has a valid reason for not doing so, they may request an explanation for their class instructor even after the prescribed period has ended, within a period of 1 year.

Furthermore, if the student objects to the explanation provided by their class instructor, they may submit a formal objection. Students should check with the Educational Affairs of Faculty of Pharmaceutical Sciences with regard to procedures for submitting a formal objection.

#### 5) Reports

“Plagiarism”, whereby an excerpt from an existing text is used in a report without proper citation, is a form of cheating, and a student found to have plagiarized a report shall have the credits in question voided, depending on the severity of the plagiarism.

### III. Teacher Training-related subjects prescribed under the Education Personnel Certification Act

In order to obtain a Teacher’s Certificate, students must acquire the necessary credits in teacher-training-related subjects provided by the Institute for Excellence in Higher Education, Tohoku University, as well as other credits that are required depending on the type of teaching certificate the student wishes to acquire. For details, please refer to “Acquiring a Teacher’s License”.

○ General Education Subjects by Semester Offered

| Type                         | Course                                 | Class subject                    | Total no. of class hours | No. of credits              | Sem. 1 | Sem. 2 | Sem. 3 | Sem. 4 | Sem. 5 | Sem. 6  | Notes |  |
|------------------------------|--|----------------------------------|--------------------------|-----------------------------|--------|--------|--------|--------|--------|---|-------|--|
| Core Subjects                | Anthropology                           | World of Thoughts and Ethics     | 30                       | 2                           | ※○     | ※○     |        |        |        |   |       |  |
|                              |  | World of Literature              | 30                       | 2                           |        | ○      |        |        |        |   |       |  |
|                              |  | World of Expression              | 30                       | 2                           |        | ○      |        |        |        |   |       |  |
|                              |  | World of Fine Arts               | 30                       | 2                           | ※○     | ※○     |        |        |        |   |       |  |
|                              |  | People and Culture               | 30                       | 2                           | ※○     | ※○     |        |        |        |   |       |  |
|                              | Social Theory                          | History and Human Society        | 30                       | 2                           | ※○     | ※○     |        |        |        |   |       |  |
|                              |  | Economy and Society              | 30                       | 2                           | ※○     | ※○     |        |        |        |   |       |  |
|                              |  | Law, Politics and Society        | 30                       | 2                           | ※○     | ※○     |        |        |        |   |       |  |
|                              |  | Study of Society                 | 30                       | 2                           | ※○     | ※○     |        |        |        |   |       |  |
|                              | Nature Theory                          | Gender and Human Society         | 30                       | 2                           |        | ○      |        |        |        |   |       |  |
|                              |  | Study of Nature                  | 30                       | 2                           | ※○     | ※○     |        |        |        |   |       |  |
|                              |  | Scientific Technology and Energy | 30                       | 2                           |        | ○      |        |        |        |   |       |  |
|                              |  | Life and Nature                  | 30                       | 2                           | ※○     | ※○     |        |        |        |   |       |  |
|                              |  | Nature and Environment           | 30                       | 2                           | ※○     | ※○     |        |        |        |   |       |  |
|                              |  |                                  | Science and Information  | 30                          | 2      | ※○     | ※○     |        |        |   |       |  |
| Developmental Subjects       | Humanities                             | Logic                            | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | Philosophy                       | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | Literature                       | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | Religion                         | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | Education                        | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | History                          | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | Linguistics                      | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | Sociology                        | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              | Social Sciences                        | Psychology                       | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | Law                              | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | Japanese Constitutional Law      | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | Politics                         | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | Economics                        | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | Cultural Anthropology            | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | Human Geography                  | 30                       | 2                           |        |        |        | ○      |        |   |       |  |
|                              |  | Natural Sciences                 | Mathematics              | Foundation of Mathematics A | 30     | 2      |        |        |        |   |       |  |
|                              | Foundation of Mathematics B            |                                  |                          | 30                          | 2      |        |        |        |        |   |       |  |
|                              | Foundation of Mathematics C            |                                  |                          | 30                          | 2      |        |        |        |        |   |       |  |
|                              | Foundation of Calculus                 |                                  |                          | 30                          | 2      |        |        |        | ○      |   |       |  |
|                              | Calculus A                             |                                  |                          | 30                          | 2      |        |        |        |        |   |       |  |
|                              | Calculus B                             |                                  |                          | 30                          | 2      |        |        |        |        |   |       |  |
| Calculus C                   | 30                                     |                                  |                          | 2                           |        |        |        |        |        |   |       |  |
| Calculus D                   | 30                                     |                                  |                          | 2                           |        |        |        |        |        |   |       |  |
| Foundation of Linear Algebra | 30                                     |                                  |                          | 2                           |        | ○      |        |        |        |   |       |  |
| Linear Algebra A             | 30                                     |                                  |                          | 2                           |        |        |        |        |        |   |       |  |
| Linear Algebra B             | 30                                     |                                  |                          | 2                           |        |        |        |        |        |   |       |  |
| Probability & Statistics     | 30                                     |                                  | 2                        |                             |        |        | ○      |        |        |   |       |  |
| Physics                      | Foundation of Physics                  |                                  | 30                       | 2                           |        |        |        |        |        |   |       |  |
|                              | Physics A                              |                                  | 30                       | 2                           |        | ○      |        |        |        |   |       |  |
|                              | Physics B-1                            |                                  | 15                       | 1                           |        |        | ○      |        |        |   |       |  |
|                              | Physics B-2                            | 15                               | 1                        |                             |        | ○      |        |        |        |   |       |  |
|                              | Physics C                              | 30                               | 2                        |                             |        |        | ○      |        |        |   |       |  |
| Chemistry                    | Physics D                              | 30                               | 2                        | ○                           |        |        |        |        |        |   |       |  |
|                              | Foundation of Chemistry                | 30                               | 2                        |                             |        |        |        |        |        |   |       |  |
|                              | Chemistry A                            | 30                               | 2                        |                             | ○      |        |        |        |        |   |       |  |
|                              | Chemistry B                            | 30                               | 2                        |                             |        | ○      |        |        |        |   |       |  |
| Biology                      | Chemistry C                            | 30                               | 2                        | ○                           |        |        |        |        |        |   |       |  |
|                              | Foundation of Biology                  | 30                               | 2                        |                             |        |        |        |        |        |   |       |  |
|                              | Biology A                              | 30                               | 2                        |                             | ○      |        |        |        |        |   |       |  |
| Space and Earth Science      | Biology B                              | 30                               | 2                        |                             |        | ○      |        |        |        |   |       |  |
|                              | Biology C                              | 30                               | 2                        |                             |        |        | ○      |        |        |   |       |  |
|                              | Elementary Environmental Earth Science | 30                               | 2                        |                             |        |        |        |        |        |   |       |  |
|                              | Elementary Astronomy                   | 30                               | 2                        |                             |        |        |        |        |        |   |       |  |
|                              | Earth System Science                   | 30                               | 2                        | ○                           |        |        |        |        |        |   |       |  |
|                              | Mineralogy, Petrology & Geochemistry   | 30                               | 2                        | ○                           |        |        |        |        |        |   |       |  |
|                              | Physical Geography                     | 30                               | 2                        |                             |        |        | ○      |        |        |   |       |  |
| Astronomy                    | 30                                     | 2                                |                          |                             |        | ○      |        |        |        |   |       |  |
| Science Experiments          | Geophysics                             | 30                               | 2                        |                             |        |        | ○      |        |        |   |       |  |
|                              | Introductory Science Experiments-1     | 30                               | 1                        |                             |        | ○      |        |        |        |   |       |  |
| Applied Sciences             | Introductory Science Experiments-2     | 30                               | 1                        |                             |        | ○      |        |        |        |   |       |  |
|                              | Integrated Courses                     | 30                               | 2                        | ※○                          | ※○     |        |        |        |        | Class subjects to be offered are decided each year. |       |  |
|                              | Current Topics Courses                 | 30                               | 2                        | ※○                          | ※○     |        |        |        |        |   |       |  |
|                              | Modern Scholarship                     | 30                               | 2                        | ※○                          | ※○     |        |        |        |        |   |       |  |

| Type            | Course                         | Class subject                 | Total no. of class hours     | No. of credits | Sem. 1 | Sem. 2 | Sem. 3 | Sem. 4 | Sem. 5 | Sem. 6 | Notes |
|-----------------|--------------------------------|-------------------------------|------------------------------|----------------|--------|--------|--------|--------|--------|--------|-------|
| Common Subjects | Conversion Courses/Small Class | Introductory Seminar          | 30                           | 2              | ○      |        |        |        |        |        |       |
|                 |                                | English                       |                              |                |        |        |        |        |        |        |       |
|                 |                                | English A1                    | 30                           | 1              | ○      |        |        |        |        |        |       |
|                 |                                | English A1-1                  | 15                           | 0.5            | ○      |        |        |        |        |        |       |
|                 |                                | English A1-2                  | 15                           | 0.5            | ○      |        |        |        |        |        |       |
|                 |                                | English A2                    | 30                           | 1              |        | ○      |        |        |        |        |       |
|                 |                                | English A2-1                  | 15                           | 0.5            |        | ○      |        |        |        |        |       |
|                 |                                | English A2-2                  | 15                           | 0.5            |        | ○      |        |        |        |        |       |
|                 |                                | English B1                    | 30                           | 1              | ○      |        |        |        |        |        |       |
|                 |                                | English B1-1                  | 15                           | 0.5            | ○      |        |        |        |        |        |       |
|                 |                                | English B1-2                  | 15                           | 0.5            | ○      |        |        |        |        |        |       |
|                 |                                | English B2                    | 30                           | 1              |        | ○      |        |        |        |        |       |
|                 |                                | English B2-1                  | 15                           | 0.5            |        | ○      |        |        |        |        |       |
|                 |                                | English B2-2                  | 15                           | 0.5            |        | ○      |        |        |        |        |       |
|                 |                                | English C1                    | 30                           | 1              |        |        | ○      |        |        |        |       |
|                 |                                | English C1-1                  | 15                           | 0.5            |        |        | ○      |        |        |        |       |
|                 |                                | English C1-2                  | 15                           | 0.5            |        |        | ○      |        |        |        |       |
|                 |                                | English C2                    | 30                           | 1              |        |        | ○      |        |        |        |       |
|                 |                                | English C2-1                  | 15                           | 0.5            |        |        | ○      |        |        |        |       |
|                 |                                | English C2-2                  | 15                           | 0.5            |        |        | ○      |        |        |        |       |
|                 |                                | Practical English Skills 1    | 30                           | 1              |        |        | ○      |        |        |        |       |
|                 |                                | Practical English Skills 1-1  | 15                           | 0.5            |        |        | ○      |        |        |        |       |
|                 |                                | Practical English Skills 1-2  | 15                           | 0.5            |        |        | ○      |        |        |        |       |
|                 |                                | Practical English Skills 2    | 30                           | 1              |        |        |        | ○      |        |        |       |
|                 |                                | Practical English Skills 2-1  | 15                           | 0.5            |        |        |        | ○      |        |        |       |
|                 |                                | Practical English Skills 2-2  | 15                           | 0.5            |        |        |        | ○      |        |        |       |
|                 |                                | Introductory Language Courses | Introduction to German I-1   | 30             | 1      | ○      |        |        |        |        |       |
|                 |                                |                               | Introduction to German I-2   | 30             | 1      | ○      |        |        |        |        |       |
|                 |                                |                               | Introduction to German II-1  | 30             | 1      |        | ○      |        |        |        |       |
|                 |                                |                               | Introduction to German II-2  | 30             | 1      |        | ○      |        |        |        |       |
|                 |                                |                               | German in Practice I-1       | 15             | 1      |        |        | ○      |        |        |       |
|                 |                                |                               | German in Practice I-2       | 15             | 1      |        |        | ○      |        |        |       |
|                 |                                |                               | German in Practice II-1      | 15             | 1      |        |        |        | ○      |        |       |
|                 |                                |                               | German in Practice II-2      | 15             | 1      |        |        |        | ○      |        |       |
|                 |                                |                               | Introduction to French I-1   | 30             | 1      | ○      |        |        |        |        |       |
|                 |                                |                               | Introduction to French I-2   | 30             | 1      | ○      |        |        |        |        |       |
|                 |                                |                               | Introduction to French II-1  | 30             | 1      |        | ○      |        |        |        |       |
|                 |                                |                               | Introduction to French II-2  | 30             | 1      |        | ○      |        |        |        |       |
|                 |                                |                               | French in Practice I-1       | 15             | 1      |        |        | ○      |        |        |       |
|                 |                                |                               | French in Practice I-2       | 15             | 1      |        |        | ○      |        |        |       |
|                 |                                |                               | French in Practice II-1      | 15             | 1      |        |        |        | ○      |        |       |
|                 |                                |                               | French in Practice II-2      | 15             | 1      |        |        |        | ○      |        |       |
|                 |                                |                               | French in Practice III-1     | 15             | 1      |        |        |        |        | ○      |       |
|                 |                                |                               | French in Practice III-2     | 15             | 1      |        |        |        |        | ○      |       |
|                 |                                |                               | French in Practice IV-1      | 15             | 1      |        |        |        |        |        | ○     |
|                 |                                |                               | French in Practice IV-2      | 15             | 1      |        |        |        |        |        | ○     |
|                 |                                |                               | Introduction to Russian I-1  | 30             | 1      | ○      |        |        |        |        |       |
|                 |                                |                               | Introduction to Russian I-2  | 30             | 1      | ○      |        |        |        |        |       |
|                 |                                |                               | Introduction to Russian II-1 | 30             | 1      |        | ○      |        |        |        |       |
|                 |                                |                               | Introduction to Russian II-2 | 30             | 1      |        | ○      |        |        |        |       |
|                 |                                |                               | Russian in Practice I-1      | 15             | 1      |        |        | ○      |        |        |       |
|                 |                                |                               | Russian in Practice I-2      | 15             | 1      |        |        | ○      |        |        |       |
|                 | Russian in Practice II-1       |                               | 15                           | 1              |        |        |        | ○      |        |        |       |
|                 | Russian in Practice II-2       |                               | 15                           | 1              |        |        |        | ○      |        |        |       |
|                 | Russian in Practice III-1      |                               | 15                           | 1              |        |        |        |        | ○      |        |       |
|                 | Russian in Practice III-2      |                               | 15                           | 1              |        |        |        |        | ○      |        |       |
|                 | Russian in Practice IV-1       |                               | 15                           | 1              |        |        |        |        |        | ○      |       |
|                 | Russian in Practice IV-2       |                               | 15                           | 1              |        |        |        |        |        | ○      |       |
|                 | Introduction to Spanish I-1    |                               | 30                           | 1              | ○      |        |        |        |        |        |       |
|                 | Introduction to Spanish I-2    |                               | 30                           | 1              | ○      |        |        |        |        |        |       |
|                 | Introduction to Spanish II-1   |                               | 30                           | 1              |        | ○      |        |        |        |        |       |
|                 | Introduction to Spanish II-2   |                               | 30                           | 1              |        | ○      |        |        |        |        |       |
|                 | Spanish in Practice I-1        |                               | 15                           | 1              |        |        | ○      |        |        |        |       |
|                 | Spanish in Practice I-2        |                               | 15                           | 1              |        |        | ○      |        |        |        |       |
|                 | Spanish in Practice II-1       |                               | 15                           | 1              |        |        |        | ○      |        |        |       |
|                 | Spanish in Practice II-2       |                               | 15                           | 1              |        |        |        | ○      |        |        |       |

| Type            | Course                              | Class subject                              | Total no. of class hours | No. of credits | Sem. 1 | Sem. 2 | Sem. 3 | Sem. 4 | Sem. 5 | Sem. 6 | Notes |  |
|-----------------|-------------------------------------|--|--------------------------|----------------|--------|--------|--------|--------|--------|--------|-------|--|
| Common Subjects | Foreign Languages                   | Introductory Language Courses              |                          |                |        |        |        |        |        |        |       |  |
|                 |                                     | Introduction to Chinese I-1                | 30                       | 1              | ○      |        |        |        |        |        |       |  |
|                 |                                     | Introduction to Chinese I-2                | 30                       | 1              | ○      |        |        |        |        |        |       |  |
|                 |                                     | Introduction to Chinese II-1               | 30                       | 1              |        | ○      |        |        |        |        |       |  |
|                 |                                     | Introduction to Chinese II-2               | 30                       | 1              |        | ○      |        |        |        |        |       |  |
|                 |                                     | Chinese in Practice I-1                    | 15                       | 1              |        |        | ○      |        |        |        |       |  |
|                 |                                     | Chinese in Practice I-2                    | 15                       | 1              |        |        | ○      |        |        |        |       |  |
|                 |                                     | Chinese in Practice II-1                   | 15                       | 1              |        |        |        | ○      |        |        |       |  |
|                 |                                     | Chinese in Practice II-2                   | 15                       | 1              |        |        |        | ○      |        |        |       |  |
|                 |                                     | Chinese in Practice III-1                  | 15                       | 1              |        |        |        |        | ○      |        |       |  |
|                 |                                     | Chinese in Practice III-2                  | 15                       | 1              |        |        |        |        | ○      |        |       |  |
|                 |                                     | Chinese in Practice IV-1                   | 15                       | 1              |        |        |        |        |        | ○      |       |  |
|                 |                                     | Chinese in Practice IV-2                   | 15                       | 1              |        |        |        |        |        | ○      |       |  |
|                 |                                     | Introduction to Korean I-1                 | 30                       | 1              | ○      |        |        |        |        |        |       |  |
|                 |                                     | Introduction to Korean I-2                 | 30                       | 1              | ○      |        |        |        |        |        |       |  |
|                 |                                     | Introduction to Korean II-1                | 30                       | 1              |        | ○      |        |        |        |        |       |  |
|                 |                                     | Introduction to Korean II-2                | 30                       | 1              |        | ○      |        |        |        |        |       |  |
|                 |                                     | Korean in Practice I-1                     | 15                       | 1              |        |        | ○      |        |        |        |       |  |
|                 |                                     | Korean in Practice I-2                     | 15                       | 1              |        |        | ○      |        |        |        |       |  |
|                 |                                     | Korean in Practice II-1                    | 15                       | 1              |        |        |        | ○      |        |        |       |  |
|                 | Korean in Practice II-2             | 15   | 1                        |                |        |        | ○      |        |        |        |       |  |
|                 | Korean in Practice III-1            | 15   | 1                        |                |        |        |        | ○      |        |        |       |  |
|                 | Korean in Practice III-2            | 15   | 1                        |                |        |        |        | ○      |        |        |       |  |
|                 | Korean in Practice IV-1             | 15   | 1                        |                |        |        |        |        | ○      |        |       |  |
|                 | Korean in Practice IV-2             | 15   | 1                        |                |        |        |        |        | ○      |        |       |  |
|                 | Introductory Language Courses       | Greek I                                    | 30                       | 2              | ○      |        |        |        |        |        |       |  |
|                 |                                     | Greek II                                   | 30                       | 2              |        | ○      |        |        |        |        |       |  |
|                 |                                     | Sanskrit I                                 | 30                       | 2              | ○      |        |        |        |        |        |       |  |
|                 |                                     | Sanskrit II                                | 30                       | 2              |        | ○      |        |        |        |        |       |  |
|                 |                                     | Latin I                                    | 30                       | 2              | ○      |        |        |        |        |        |       |  |
|                 |                                     | Latin II                                   | 30                       | 2              |        | ○      |        |        |        |        |       |  |
|                 |                                     | Mongolian I                                | 30                       | 2              | ○      |        |        |        |        |        |       |  |
|                 |                                     | Mongolian II                               | 30                       | 2              |        | ○      |        |        |        |        |       |  |
|                 |                                     | Italian I                                  | 30                       | 2              | ○      |        |        |        |        |        |       |  |
|                 |                                     | Italian II                                 | 30                       | 2              |        | ○      |        |        |        |        |       |  |
|                 |                                     | Czech I                                    | 30                       | 2              | ○      |        |        |        |        |        |       |  |
|                 |                                     | Czech II                                   | 30                       | 2              |        | ○      |        |        |        |        |       |  |
|                 | Arabic I                            | 30   | 2                        | ○              |        |        |        |        |        |        |       |  |
|                 | Arabic II                           | 30   | 2                        |                | ○      |        |        |        |        |        |       |  |
|                 | Information Science Course          | An Introduction to Information Science A-1 | 15                       | 1              | ○      |        |        |        |        |        |       |  |
|                 |                                     | An Introduction to Information Science A-2 | 15                       | 1              | ○      |        |        |        |        |        |       |  |
|                 |                                     | An Introduction to Information Science B   | 30                       | 2              | ○      |        |        |        |        |        |       |  |
|                 | Health and Physical Education       | Sports A                                   | 30                       | 1              | ○      |        |        |        |        |        |       |  |
|                 |                                     | Sports B                                   | 30                       | 1              |        |        | ※○     | ※○     |        |        |       |  |
|                 |                                     | Health                                     | 30                       | 2              | ○      |        |        |        |        |        |       |  |
|                 | Subjects for International Students | Japanese A-1                               | 15                       | 0.5            | ○      |        |        |        |        |        |       | These are class subjects for international students. |
|                 |                                     | Japanese A-2                               | 15                       | 0.5            | ○      |        |        |        |        |        |       |  |
| Japanese B-1    |                                     | 15   | 0.5                      |                | ○      |        |        |        |        |        |       |  |
| Japanese B-2    |                                     | 15   | 0.5                      |                | ○      |        |        |        |        |        |       |  |
| Japanese C-1    |                                     | 15   | 0.5                      | ○              |        |        |        |        |        |        |       |  |
| Japanese C-2    |                                     | 15   | 0.5                      | ○              |        |        |        |        |        |        |       |  |
| Japanese D-1    |                                     | 15   | 0.5                      |                | ○      |        |        |        |        |        |       |  |
| Japanese D-2    |                                     | 15   | 0.5                      |                | ○      |        |        |        |        |        |       |  |
| Japanese E-1    |                                     | 15   | 0.5                      | ○              |        |        |        |        |        |        |       |  |
| Japanese E-2    |                                     | 15   | 0.5                      | ○              |        |        |        |        |        |        |       |  |
| Japanese F-1    |                                     | 15   | 0.5                      |                | ○      |        |        |        |        |        |       |  |
| Japanese F-2    |                                     | 15   | 0.5                      |                | ○      |        |        |        |        |        |       |  |
| Japanese G-1    |                                     | 15   | 0.5                      | ○              |        |        |        |        |        |        |       |  |
| Japanese G-2    |                                     | 15   | 0.5                      | ○              |        |        |        |        |        |        |       |  |
| Japanese H-1    | 15                                  | 0.5  |                          | ○              |        |        |        |        |        |        |       |  |
| Japanese H-2    | 15                                  | 0.5  |                          | ○              |        |        |        |        |        |        |       |  |
| Japanese I-1    | 15                                  | 0.5  | ○                        |                |        |        |        |        |        |        |       |  |
| Japanese I-2    | 15                                  | 0.5  | ○                        |                |        |        |        |        |        |        |       |  |
| Japanese J-1    | 15                                  | 0.5  |                          | ○              |        |        |        |        |        |        |       |  |
| Japanese J-2    | 15                                  | 0.5  |                          | ○              |        |        |        |        |        |        |       |  |

1. The semesters in which subjects are offered as shown above are the standard schedule; these may change slightly depending on the academic year, and so students should check the Class Timetable distributed at the beginning of each academic year.
2. Subjects marked with a star [\*] are offered in multiple semesters. As it is not possible to take the same subject twice, students should take these subjects in only one of the semesters in which they are offered.
3. Subjects for which the semester in which they are offered is not shown can be taken under a different course (faculty).

○ Semester that Offers Major Subjects

[Common in the Department of Pharmaceutical Sciences and the Department of Pharmacy (Basic Educational Subjects)]

| Category  | Subject                                   | Total time of lecture | Credits | 1st Semester | 2nd Semester | 3rd Semester | 4th Semester | 5th Semester | 6th Semester | 7th Semester | 8th Semester | Remarks |
|---|---|-----------------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------|
| Basic Educational Subjects                            | Introduction to Pharmaceutical Sciences 1 | 30                    | 2       | ○            |              |              |              |              |              |              |              |         |
|   | Introduction to Pharmaceutical Sciences 2 | 15                    | 1       |              |              | ○            |              |              |              |              |              |         |
|   | Organic Chemistry 1                       | 30                    | 2       |              | ○            |              |              |              |              |              |              |         |
|   | Organic Chemistry 2                       | 30                    | 2       |              | ○            |              |              |              |              |              |              |         |
|   | Organic Chemistry 3                       | 30                    | 2       |              |              | ○            |              |              |              |              |              |         |
|   | Organic Chemistry 4                       | 30                    | 2       |              |              |              | ○            |              |              |              |              |         |
|   | Organic Chemistry 5                       | 30                    | 2       |              |              |              | ○            |              |              |              |              |         |
|   | Pharmacognosy 1                           | 30                    | 2       |              |              | ○            |              |              |              |              |              |         |
|   | Pharmacognosy 2                           | 30                    | 2       |              |              |              | ○            |              |              |              |              |         |
|   | Medicinal Chemistry 1                     | 15                    | 1       |              |              |              |              | ○            |              |              |              |         |
|   | Organic Reaction                          | 30                    | 2       |              |              |              |              | ○            |              |              |              |         |
|   | Analytical Chemistry 1                    | 30                    | 2       |              | ○            |              |              |              |              |              |              |         |
|   | Analytical Chemistry 2                    | 30                    | 2       |              |              |              | ○            |              |              |              |              |         |
|   | Analytical Chemistry 3                    | 30                    | 2       |              |              |              |              | ○            |              |              |              |         |
|   | Physical Chemistry 1                      | 30                    | 2       |              | ○            |              |              |              |              |              |              |         |
|   | Physical Chemistry 2                      | 30                    | 2       |              |              | ○            |              |              |              |              |              |         |
|   | Physical Chemistry 3                      | 30                    | 2       |              |              |              |              | ○            |              |              |              |         |
|   | Radiochemistry                            | 30                    | 2       |              |              |              |              | ○            |              |              |              |         |
|   | Structural Chemistry                      | 30                    | 2       |              |              |              |              | ○            |              |              |              |         |
|   | Functional Morphology 1                   | 30                    | 2       | ○            |              |              |              |              |              |              |              |         |
|   | Functional Morphology 2                   | 30                    | 2       |              | ○            |              |              |              |              |              |              |         |
|   | Biochemistry 1                            | 30                    | 2       |              | ○            |              |              |              |              |              |              |         |
|   | Biochemistry 2                            | 30                    | 2       |              |              | ○            |              |              |              |              |              |         |
|   | Biochemistry 3                            | 30                    | 2       |              |              | ○            |              |              |              |              |              |         |
|   | Biochemistry 4                            | 30                    | 2       |              |              |              | ○            |              |              |              |              |         |
|   | Molecular Biology                         | 30                    | 2       |              |              |              | ○            |              |              |              |              |         |
|   | Pharmacology 1                            | 30                    | 2       |              |              | ○            |              |              |              |              |              |         |
|   | Pharmacology 2                            | 30                    | 2       |              |              | ○            |              |              |              |              |              |         |
|   | Pharmacology 3                            | 30                    | 2       |              |              |              | ○            |              |              |              |              |         |
|   | Pharmacology 4                            | 30                    | 2       |              |              |              |              | ○            |              |              |              |         |
|   | Health Chemistry 1                        | 30                    | 2       |              |              |              | ○            |              |              |              |              |         |
|   | Pharmaceutics 1                           | 30                    | 2       |              |              | ○            |              |              |              |              |              |         |
|   | Pharmaceutics 2                           | 30                    | 2       |              |              |              | ○            |              |              |              |              |         |
|   | Environmental Health Science              | 30                    | 2       |              |              |              |              | ○            |              |              |              |         |
| General Training in Physical Chemistry                |   | 2                     |         |              |              | ○            |              |              |              |              |              |         |
| General Training in Organic Chemistry 1               |   | 2                     |         |              |              | ○            |              |              |              |              |              |         |
| General Training in Organic Chemistry 2               |   | 1                     |         |              |              |              | ○            |              |              |              |              |         |
| General Training in Life Sciences                     |   | 3                     |         |              |              |              | ○            |              |              |              |              |         |
| General Training in Biopharmacy and Pharmacy Practice |   | 2                     |         |              |              |              | ○            |              |              |              |              |         |

[Department of Pharmaceutical Sciences (Advanced Educational Subjects/Researcher Educational Subjects)]

| Category                                     | Subject                                | Time of lecture per week | Credits | 1st Semester | 2nd Semester | 3rd Semester | 4th Semester | 5th Semester | 6th Semester | 7th Semester | 8th Semester | Remarks |
|--|--|--------------------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------|
| Advanced Educational Subjects                | Natural Products Chemistry             | 30                       | 2       |              |              |              |              |              | ○            |              |              |         |
|  | Organic Synthesis                      | 30                       | 2       |              |              |              |              |              | ○            |              |              |         |
|  | Medicinal Chemistry 2                  | 30                       | 1       |              |              |              |              |              | ○            |              |              |         |
|  | Structure Analysis of Organic Compound | 30                       | 2       |              |              |              |              |              | ○            |              |              |         |
|  | Principles of Clinical Medicine        | 30                       | 2       |              |              |              |              |              | ○            |              |              |         |
|  | Drug Design and Development            | 30                       | 2       |              |              |              |              |              | ○            |              |              |         |
|  | Imaging Diagnosis                      | 15                       | 1       |              |              |              |              |              | ○            |              |              |         |
|  | Pharmaceutic Laws 1                    | 15                       | 1       |              |              |              |              |              | ○            |              |              |         |
| Advanced Training in Pharmaceutical Sciences |  | 6                        |         |              |              |              |              | ○            |              |              |              |         |
| Researcher Educational Subjects              | Research Training                      |                          | 20      |              |              |              |              |              |              | ○            | ○            |         |

[Department of Pharmacy (Advanced Educational Subjects/On-site Training Subjects/Researcher Educational Subjects)]

| Category                              | Subject   | Time of lecture per week | Credits | 1st Semester | 2nd Semester | 3rd Semester | 4th Semester | 5th Semester | 6th Semester | 7th Semester | 8th Semester | 9th Semester | 10th Semester | 11th Semester | 12th Semester | Remarks |
|---------------------------------------|---|--------------------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------|
| Advanced Educational Subjects         | Health Chemistry 2                                      | 30                       | 2       |              |              |              |              |              |              | ○            |              |              |               |               |               |         |
|                                       | Pharmacostatistics                                      | 15                       | 1       |              |              |              |              |              | ○            |              |              |              |               |               |               |         |
|                                       | Immunology  | 30                       | 2       |              |              |              |              |              | ○            |              |              |              |               |               |               |         |
|                                       | Food Hygiene and Safety                                 | 30                       | 2       |              |              |              |              |              | ○            |              |              |              |               |               |               |         |
|                                       | General Introduction to Various Forms of Illness        | 30                       | 2       |              |              |              |              |              | ○            |              |              |              |               |               |               |         |
|                                       | Fundamentals of Practical Pharmacy                      | 30                       | 2       |              |              |              |              |              |              | ○            |              |              |               |               |               |         |
|                                       | Pharmacotherapeutics 1                                  | 30                       | 2       |              |              |              |              |              |              | ○            |              |              |               |               |               |         |
|                                       | Pharmacotherapeutics 2                                  | 30                       | 2       |              |              |              |              |              |              |              | ○            |              |               |               |               |         |
|                                       | Pharmacotherapeutics 3                                  | 30                       | 2       |              |              |              |              |              |              |              | ○            |              |               |               |               |         |
|                                       | Infectious Diseases                                     | 30                       | 2       |              |              |              |              |              | ○            |              |              |              |               |               |               |         |
|                                       | Pathology   | 30                       | 2       |              |              |              |              |              | ○            |              |              |              |               |               |               |         |
|                                       | Human Genomics  | 15                       | 1       |              |              |              |              |              | ○            |              |              |              |               |               |               |         |
|                                       | Bioorganic Chemistry                                    | 30                       | 2       |              |              |              |              |              | ○            |              |              |              |               |               |               |         |
|                                       | Medical Informatics                                     | 30                       | 2       |              |              |              |              |              |              | ○            |              |              |               |               |               |         |
|                                       | Kampo Medicine  | 30                       | 2       |              |              |              |              |              |              | ○            |              |              |               |               |               |         |
|                                       | Clinical Pharmacology                                   | 30                       | 2       |              |              |              |              |              |              | ○            |              |              |               |               |               |         |
|                                       | Clinical Laboratory Medicine                            | 30                       | 2       |              |              |              |              |              |              |              | ○            |              |               |               |               |         |
|                                       | Clinical Pharmaceutics                                  | 30                       | 2       |              |              |              |              |              |              | ○            |              |              |               |               |               |         |
|                                       | Prescription Analysis                                   | 30                       | 2       |              |              |              |              |              |              | ○            |              |              |               |               |               |         |
|                                       | Pharmaceutic Laws 1                                     | 15                       | 1       |              |              |              |              |              | ○            |              |              |              |               |               |               |         |
| Pharmaceutic Laws 2                   | 15  | 1                        |         |              |              |              |              |              |              | ○            |              |              |               |               |               |         |
| Non-Prescription Medications and Care | 15  | 1                        |         |              |              |              |              |              |              | ○            |              |              |               |               |               |         |
| Clinical Communication Skills         | 15  | 1                        |         |              |              |              |              |              |              | ○            |              |              |               |               |               |         |
| Pharmaceutical English                | 15  | 1                        |         |              |              |              |              |              |              | ○            |              |              |               |               |               |         |
| Advanced Training in Pharmacy 1       |   | 6                        |         |              |              |              |              | ○            |              |              |              |              |               |               |               |         |
| Advanced Training in Pharmacy 2       |   | 12                       |         |              |              |              |              |              | ○            | ○            |              |              |               |               |               |         |
| On-site Training Subjects             | General Training in Biopharmacy and Pharmacy Practice 1 |                          | 2       |              |              |              |              |              |              |              | ○            |              |               |               |               |         |
|                                       | General Training in Biopharmacy and Pharmacy Practice 2 |                          | 1       |              |              |              |              |              |              |              | ○            |              |               |               |               |         |
|                                       | Basic Training in Biopharmacy and Pharmacy Practice     |                          | 4       |              |              |              |              |              |              |              | ○            |              |               |               |               |         |
|                                       | Pharmacy Practice in Hospital                           |                          | 10      |              |              |              |              |              |              |              |              | ○            |               |               |               |         |
|                                       | Pharmacy Practice in Community                          |                          | 10      |              |              |              |              |              |              |              | ○            | ○            |               |               |               |         |
| Researcher Educational Subjects       | Practice in Pharmaceutical Sciences                     |                          | 2       |              |              |              |              |              |              |              |              |              |               |               | ○             |         |
|                                       | Research Training                                       |                          | 20      |              |              |              |              |              |              |              |              |              | ○             | ○             | ○             |         |

# Tohoku University Faculty of Pharmaceutical Sciences Regulations

(Enacted May 24, 1972)

Latest Revision: January 21, 2015

Regulation No. \_\_\_\_

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## Chapter 1. General Provisions

Article 1. The purpose of these regulations is to prescribe matters pertaining to Enrollment, Re-enrollment, Department Transfer, Faculty Transfer, Inter-university Transfer, Inter-educational Institution Transfer, Curriculum, Class-taking Methods, Examinations, and Graduation, Etc., for Tohoku University Faculty of Pharmaceutical Sciences (hereinafter referred to as the “Faculty”) in addition to the provisions prescribed in Tohoku University Faculty of Pharmaceutical Sciences General Rules (enacted 18 December, 1952), provided, however, that the Faculty of Pharmaceutical Sciences Faculty Council (hereinafter referred to as the “Faculty Council”) shall have the ability to prescribe special case exemptions as necessary, notwithstanding these regulations.

Article 1-2. The Faculty aims to nurture human resources with the capability to contribute to advancement of pharmaceutical sciences and play a leading role in healthcare as pharmaceutical specialists by furthering basic education related to drug therapy and the creation of safe drugs that are effective against various diseases.

Article 2. The Faculty shall comprise the following departments.

Department of Pharmaceutical Sciences

Department of Pharmacy

Article 2-2. The Department of Pharmaceutical Sciences aims to nurture human resources equipped with basic knowledge and skills to enable them to be researchers or engineers in the field of pharmaceutical sciences.

2 The Department of Pharmacy aims to nurture highly skilled pharmacists with an abundant spirit of inquiry.

Article 2-3. A student’s maximum period of enrollment shall be as follows.

Department of Pharmaceutical Sciences: 6 years



Department of Pharmacy: 9 years

## Chapter 2. Enrollment, Re-enrollment, Department Transfer, Faculty Transfer, Inter-university Transfer, and Inter-educational Institution Transfer

Article 3. Necessary matters pertaining to Enrollment shall be prescribed separately by the Faculty Council.

Article 3-2. The department to which each student is assigned shall be decided by the Faculty Council.

Article 4. If a person who has withdrawn or been expelled from the Faculty wishes to re-enroll in the Faculty, the Faculty Council may give permission for re-enrollment following screening of the applicant.

2 The method for screening in the preceding paragraph shall be prescribed separately by the Faculty Council.

Article 5. In the case that a person requests a Department Transfer, Faculty Transfer, Inter-university Transfer, or Inter-educational Institution Transfer, this shall be permitted following screening of the applicant only in the case that a place is available.

2 The method for screening in the preceding paragraph shall be prescribed separately by the Faculty Council.

Article 6. With regard to persons who have been granted permission to enroll in the Faculty and who, prior to enrolling in the Faculty, have acquired credits (including credits acquired as a non-degree student) for subjects taken in relevant courses at Tohoku University or another Japanese university or junior college, or an overseas university or junior college, or educational facility in Japan providing university or junior college courses under the school education system of another country and which is designated separately by the Japanese Minister of Education, Culture, Sports, Science and Technology (hereinafter referred to as an “Educational Facility Providing Foreign University, Etc., Courses”), the said credits shall be recognized as credits acquired in the Faculty as stipulated by the Faculty Council.

2 In accordance with the provision of the preceding paragraph, the maximum number of credits that may be recognized as credits obtained in the Faculty as credits that have been acquired, or can be acquired, in accordance with the provisions of Article 17 Paragraph 1, Article 18-2 Paragraph 1, and/or Article 18-3 Paragraph 1, shall be 60 credits in total.

## Chapter 3. Organization of the Curriculum

Article 7. The Faculty curriculum shall comprise the following subject categories.

- (i) General Education Subjects
- (ii) Specialized Subjects
- (iii) Teacher Training-related subjects as prescribed under the Education Personnel Certification Act (Law No. 147 of 1949) (hereinafter referred to as “Teacher-training Subjects”).

## Chapter 4. Classes, Class-taking Methods, and Examinations, Etc., for General Education Subjects

Article 8. General Education Subjects, Teacher-training Subjects, and number of credits, etc., shall be as prescribed in Article 3 of Tohoku University General Education Subjects, Etc., Regulations (Regulation No. 91 of 1993).

2 The methods for taking and examinations, etc., for the subjects prescribed in the preceding paragraph shall be in accordance with Tohoku University General Education Subjects, Etc., Regulations in addition to provisions prescribed separately by the Faculty Council.

## Chapter 5. Classes, Class-taking Methods, and Examinations, Etc., for Specialized Subjects

Article 9. Specialized Subjects in the Department of Pharmaceutical Sciences shall be categorized into Basic Educational Subjects, Advanced Educational Subjects, and Researcher Educational Subjects.

2 Specialized Subjects in the Department of Pharmacy shall be categorized into Basic Educational Subjects, Advanced Educational Subjects, On-Site Training Subjects, and Researcher Educational Subjects.

3 The classes, number of credits, and class-taking methods for the Specialized Subjects in the preceding 2 paragraphs shall be prescribed separately by the Faculty Council.

Article 10. Students must decide the subjects (classes) they wish to take from among the Specialized Subjects as prescribed by the Faculty Council, excluding those subjects designated by the Faculty Council (hereinafter referred to as “Designated Subjects”), and submit these subjects to the Faculty Dean by the stipulated deadline.

Article 11. Recognition of taking a subject shall be decided by means of examinations, and students who pass the relevant examination(s) shall be awarded the credits for the relevant subject, provided, however, that a student’s usual classwork results and/or assignment results may be substituted for examination results in the case that this is deemed necessary by the Faculty Council.

2 The examinations and results in the preceding paragraph shall be prescribed separately by the Faculty Council.

3 Subjects for which examinations can be taken shall be limited to subjects taken by the student in accordance with the procedures prescribed in the preceding article and designated subjects.

Article 12. The university year or semester in which a subject is to be taken, class schedule, and class instructor for a subject shall as a general rule be made public at the beginning of the academic year.

Article 13. Faculty students may take Specialized Subjects in another faculty with the permission of the Faculty Dean. In this case, the student must carry out the procedures for taking classes prescribed by the relevant faculty.

Article 14. Students from other faculties who request permission to take Specialized Subjects in the Faculty may be granted permission to do so.

2 The requests for permission to take Specialized Subjects in the Faculty must be submitted through the Dean of the Faculty with which the student making the request is affiliated.

#### Chapter 6. Taking Subjects at Another University or Junior College, Etc., and Study Abroad, Etc.

Article 15. Faculty students may take subjects at another university or junior college as prescribed separately by the Faculty Council with the permission of the Faculty Dean.

2 The provision of the preceding paragraph shall apply mutatis mutandis in the case that a student takes a subject in Japan through a correspondence course offered by an overseas university or junior college or equivalent higher education institution (hereinafter referred to as “Overseas University, Etc.” or in the case that a student takes a subject in the relevant curriculum of an Educational Facility Providing Foreign University, Etc., Courses in Japan.

Article 16. Faculty students may study abroad at an Overseas University, Etc., as prescribed separately by the Faculty Council with the permission of the Faculty Dean.

2 The period a student studies abroad at an Overseas University, Etc., shall be included in the student’s number of years enrolled in the Faculty.

3 The provision of Paragraph 1 shall apply mutatis mutandis in the case that the student studies at an Overseas University, Etc., while taking a Leave of Absence from the Faculty.

Article 17. Credit for subjects taken in accordance with the provisions of Article 15 and the results a student

attains from study abroad in accordance with the provisions of Paragraphs 1 and 3 of the preceding article or from study abroad conducted while taking a leave of absence from the Faculty shall be recognized as credits acquired in the Faculty as stipulated separately by the Faculty Council.

2 In accordance with the provision of the preceding paragraph, the maximum number of credits that may be recognized as credits obtained in the Faculty as credits that have been acquired, or can be acquired, in accordance with the provisions of Article 6 Paragraph 1, Article 18-2 Paragraph 1, and/or Article 18-3 Paragraph 1, shall be 60 credits in total.

Article 18. In addition to the provisions prescribed in this Chapter, the Faculty Council shall separately prescribe any necessary provisions regarding students taking subjects at another Japanese university or junior college, taking a correspondence course subject in Japan offered by an Overseas University, Etc., taking a subject in a relevant curriculum of an Educational Facility Providing Foreign University, Etc., Courses in Japan, studying abroad at an Overseas University, Etc., or studying at an Overseas University, Etc., while taking a leave of absence from the faculty.

#### Chapter 6-2. Studying at a Non-university Educational Institution, Etc.

Article 18-2. Study carried out by a Faculty student in an advanced course offered by a Japanese junior college or college of technology or other study prescribed separately by the Japanese Minister of Education, Culture, Sports, Science and Technology and stipulated by the Faculty Council may be recognized as study in a Faculty subject and credits awarded for the relevant study.

2 In accordance with the provision of the preceding paragraph, the maximum number of credits that may be recognized or regarded as credits obtained in the Faculty as credits that have been acquired, or can be acquired, in accordance with the provisions of Article 6 Paragraph 1, Article 17 Paragraph 1, and/or Article 18-3 Paragraph 1, shall be 60 credits in total.

Article 18-3. Study prescribed in Paragraph 1 of the preceding article that was carried out by a student prior to enrollment in the Faculty and stipulated by the Faculty Council may be recognized as study in a Faculty subject and credits awarded for the relevant study.

2 In accordance with the provision of the preceding paragraph, the maximum number of credits that may be recognized or regarded as credits obtained in the Faculty as credits that have been acquired, or can be acquired, in accordance with the provisions of Article 6 Paragraph 1, Article 17 Paragraph 1, and/or Paragraph 1 of the preceding article, shall be 60 credits in total, except in the case of Re-enrollment, Department Transfer, Faculty Transfer, Inter-university Transfer, or Inter-educational Institution Transfer.

Article 18-4. In addition to the provisions prescribed in this Chapter, the Faculty Council shall separately prescribe any necessary provisions regarding students undertaking study in an advanced course at a junior college or college of technology, or other study as prescribed separately by the Japanese Minister of Education, Culture, Sports, Science and Technology.

#### Chapter 7. Graduation, Etc.

Article 19. In order to take Faculty subjects offered from the Second Semester of their Third Year, students are required to acquire 43 or more credits from General Education Subjects and 66 or more credits from Basic Educational Subjects within Specialized Subject categories, as prescribed separately by the Faculty Council.

Article 19-2. In order to take On-Site Training Subjects within Specialized Subject categories, Department of Pharmacy students are required to acquire 45 or more credits from Advanced Educational Subjects as

prescribed separately by the Faculty Council.

Article 20. In order to graduate from the Faculty, Department of Pharmaceutical Sciences students are required to be enrolled in the Faculty for a period of 4 years or more and acquire 43 or more credits from General Education Subjects and 100 or more credits from Specialized Subjects (66 credits Basic Educational Subjects, 14 credits from Advanced Educational Subjects, and 20 credits from Researcher Educational Subjects) as prescribed separately by the Faculty Council.

Article 21. In order to graduate from the Faculty, Department of Pharmacy students are required to be enrolled in the Faculty for a period or 6 years or more and acquire 43 or more credits from General Education Subjects and 160 or more credits from Specialized Subjects (66 credits Basic Educational Subjects, 45 credits from Advanced Educational Subjects, 27 credits from On-Site Training Subjects, and 22 credits from Researcher Educational Subjects) as prescribed separately by the Faculty Council.

Article 22. Recognition of acquisition of accreditation and graduation shall be made by the Faculty Dean following discussion by the Faculty Council.

#### Chapter 8. Non-degree Students

Article 23. In the case that a person requests permission to take a specific Faculty subject, they may be granted permission to enroll as a Non-degree Student following discussion by the Faculty Council.

Article 24. In order for a person to enroll in the Faculty as a Non-degree Student, 1 of the following conditions must apply.

- (i) The person has been enrolled at a university (excluding junior college) for 2 or more years and has completed a specified course.
- (ii) The person has graduated from a junior college or college of technology.
- (iii) The person is deemed to have equivalent scholastic ability as those in the preceding 2 items.

2 Notwithstanding the preceding paragraph, in order for a person to enroll in the Faculty as a Non-degree Student taking systematic subjects with the aim of acquiring eligibility to sit the National Examination for Pharmacists in accordance with Article 3 of the Supplementary Provisions of the Law to Partially Revise the Pharmacists Act (Law No. 134 of 2004), both of the following conditions must also apply.

- (i) The person is enrolled at Tohoku University or has made an Inter-educational Institution Transfer, and is a graduate of the Faculty's Department of Pharmaceutical Sciences.
- (ii) The person has been enrolled in a pharmacy master's degree course or doctoral degree course for a period of 2 years or more at Tohoku University Graduate School or the graduate school of another university, and has completed the said course.

Article 25. The maximum period of enrollment for Non-degree Students shall be 1 semester, provided, however, that permission for this period to be extended may be granted by the Faculty Dean following discussion by the Faculty Council in the case that the Non-degree Student requests an extension.

2 Non-degree Students may not be enrolled in the Faculty for a period of more than 2 years.

3 Notwithstanding the provisions of the preceding 2 paragraphs, the period of enrollment for Non-degree Students as prescribed in Paragraph 2 of the preceding article shall be 2 years, provided, however, that permission for this period to be extended may be granted by the Faculty Dean following discussion by the Faculty Council in the case that the Non-degree Student requests an extension.

Article 26. Non-degree Students may sit the examination(s) for the subject(s) that they take and acquire credit.

Article 27. In the case that a Non-degree Student requests certification for the subject(s) they have taken, the

Faculty Dean may issue a certificate.

#### Chapter 9. Special Auditing Students

Article 28. In the case that a student in a relevant course at another Japanese university, junior college, or college of technology, or overseas university, junior college, or equivalent high education institution, etc. (hereinafter referred to as “Overseas University or Junior College, Etc.”), or Educational Facility Providing Foreign University, Etc., Courses in Japan requests to take a subject in the Faculty, permission for the student to be accepted as a Special Auditing Student may be granted as determined following discussions with the relevant Japanese university, junior college, or college of technology, or Overseas University or Junior College, Etc., or Educational Facility Providing Foreign University, Etc., Courses in Japan.

2 Necessary matters pertaining to the acceptance of Special Auditing Students shall be prescribed separately by the Faculty Council.

#### Supplementary Provisions

1. These rules shall enter into force on April 1, 2010.
2. With regard to the number of credit units required for graduation students enrolling in Faculty of Pharmaceutical Sciences prior to the 2009 academic year, provisions then in force shall remain applicable regardless of the provisions prescribed in the revised Article 21.

#### Supplementary Provisions

1. These rules shall enter into force on April 1, 2015.
2. With regard to the class subjects and number of credit units for students enrolling in the Faculty of Pharmaceutical Sciences prior to the 2014 academic year, provisions then in force shall remain applicable regardless of the provisions prescribed in the revised Appendixes 2 and 3.

# Rules for Taking Courses in Tohoku University Faculty of Pharmaceutical Sciences

(Enacted November 16, 2005)

Latest revision: January 18, 2017

## (Purpose)

Article 1. The purpose of these rules is to prescribe the class subjects, number of credit units, methods for taking courses, examinations, and academic records for Tohoku University Faculty of Pharmaceutical Sciences (hereinafter referred to as the “Faculty”) in addition to the provisions prescribed in Tohoku University Faculty of Pharmaceutical Sciences Regulations) (Regulations No. 118 of 1993; hereinafter referred to as the “Regulations”).

## (Class Subjects, Number of Credit Units, and Methods for Taking Courses)

Article 2. The methods for taking courses for taking general education subjects prescribed under Article 8 Paragraph 2 of the Regulations shall be in accordance with Appendix 1.

Article 3. The class subjects, number of credit units, and methods for taking courses prescribed under Article 9 Paragraph 3 of the Regulations shall be in accordance with Appendix 2 for the Department of Pharmaceutical Sciences and Appendix 3 for the Department of Pharmacy.

2 In addition to the subjects prescribed in the preceding paragraph, the Dean of the Faculty of Pharmaceutical Sciences may establish special class subjects following discussion by the Faculty Council.

## (Regular Examinations, Make-up Examinations, and Re-examinations)

Article 4. Examinations prescribed under Article 11 Paragraph 2 of the Regulations shall comprise regular examinations, make-up examinations, and re-examinations.

Article 5. Regular examination shall be held at the end of each semester. However, examinations may be held at any time when deemed necessary by the faculty member in charge of the course.

Article 6. If a student is unable to take an examination for an unavoidable reason, they may take a make-up examination.

2 Students who wish to take a make-up examination must submit an application together with the following documents to the Faculty Dean by the prescribed deadline and obtain the Dean’s permission to take the make-up examination.

- (1) Students who were unable to take the examination due to illness: medical certificate
- (2) Students who were unable to take the examination due to an accident: accident report
- (3) Bereavement within the second degree of kinship: student’s application form

3 In addition the reasons provided in the preceding paragraph, a student may take a make-up examination in the case that the Faculty Dean deems the reason for being unable to take the examination to be unavoidable.

Article 7. Students who fail a regular examination may under certain circumstances undergo re-examination.

2 Students who do not sit for a regular examination may not undergo re-examination.

Article 8. Students who failed a make-up examination for a regular examination may be given re-examination by applying the preceding article *mutatis mutandis*.

(Grade Classifications)

Article 9. For major subjects, the overall evaluation for regular examination/make-up examination + reports and other coursework shall comprise a score out of 100 points, with a score of 60 points or above deemed to be a passing score.

2 When a perfect 100-point score distribution evaluation is converted to a graded evaluation, the following categories apply. However, depending on the class subject, passing and failing grade cut-offs may differ.

|                       |                                    |
|-----------------------|------------------------------------|
| 90 – 100 points: AA   | Results are especially outstanding |
| 80 – 89 points: A     | Results are outstanding            |
| 70 – 79 points: B     | Results are good                   |
| 60 – 69 points: C     | Results are acceptable             |
| 59 points or below: D | Results are unacceptable           |

3 For the results evaluations provided in the previous paragraph, grades of AA, A, B, and C shall be passing grades, and a grade of D shall be a failing grade.

Article 10. If a student passes a re-examination for a major subject, their results shall be evaluated as a grade of C.

#### Supplementary Provisions

1. These rules shall enter into force on April 1, 2010.
2. With regard to the class subjects and number of credit units for students enrolling in the Faculty prior to the 2009 academic year, provisions then in force shall remain applicable regardless of the provisions prescribed in the revised Appendixes 1, 2, and 3.

#### Supplementary Provisions

1. These rules shall enter into force on April 1, 2013.
2. Provisions pertaining to Common Subject Foreign Language Introductory Language Chinese III (under development) and Chinese IV (under development) prescribed in the revised Appendix 1 shall apply beginning with enrollees (including students that re-enroll in or transfer into the Faculty in the same year as first-time enrollees) in the 2013 academic year; the same shall apply hereinafter); and provisions pertaining

to the revised Common Subject Foreign Language English Practical English Skills 1 and Practical English Skills 2 shall apply beginning with enrollees in the 2012 academic year.

#### Supplementary Provisions

1. These rules shall enter into force on April 1, 2014.
2. With regard to the class subjects and number of credit units for students enrolling in the Faculty prior to the 2013 academic year, provisions then in force shall remain applicable regardless of the provisions prescribed in the revised Appendixes 2 and 3.

#### Supplementary Provisions

1. These rules shall enter into force on April 1, 2015.
2. With regard to the class subjects and number of credit units for students enrolling in the Faculty prior to the 2014 academic year, provisions then in force shall remain applicable regardless of the provisions prescribed in the revised Appendixes 2 and 3.

#### Supplementary Provisions

1. These rules shall enter into force on April 1, 2017.
2. With regard to the class subjects and number of credit units for students enrolling in the Faculty prior to the 2016 academic year, provisions then in force shall remain applicable regardless of the provisions prescribed in the revised Appendixes 2 and 3.



Appendix 1 [General Education Subjects]

| Category                             | Course                             | Subject                                | No. of Credit           | Class-taking Method   |   |
|--------------------------------------|------------------------------------|--|-------------------------|---|---|
| Core Subjects                        | Anthropology                       | World of Thought and Ethics            | 2                       | Students are required to acquire 2 or more credits from the subjects shown at left.   | <p>How to Take General Education Subjects<br/>43 or more credits</p> <p>(1) Basic Educational Subjects: 6 or more credits<br/>2 or more credits from Anthropology<br/>2 or more credits from Social Theory<br/>2 or more credits from Nature Theory</p> <p>(2) Advanced Educational Subjects: 18 or more credits<br/>2 or more credits from Humanities<br/>2 or more credits from Social Sciences<br/>Natural Sciences<br/>2 or more credits from Mathematics<br/>2 or more credits from Physics<br/>4 or more credits from Chemistry<br/>4 or more credits from Biology<br/>2 credits from "Introductory Science Experiments"</p> <p>(3) Common Subjects: 15 or more credits<br/>2 credits from "Introductory Seminar"<br/>Foreign Languages<br/>6 credits from English<br/>4 or more credits from Introductory Languages<br/>3 or more credits from Health and Physical Education</p> <p>(4) 4 or more credits from Advanced Educational Subjects in Natural Sciences or Applied Sciences courses; or Common Subjects in Information courses</p> <p>In order to take subjects offered from the 2nd semester of their third year, students must acquire 43 or more credits through this class-taking method.</p> |
|                                      |                                    | World of Literature                    | 2                       |   |   |
|                                      |                                    | World of Expression                    | 2                       |   |   |
|                                      |                                    | World of Fine Art                      | 2                       |   |   |
|                                      |                                    | People and Culture                     | 2                       |   |   |
|                                      | Social Theory                      | History and Human Society              | 2                       | Students are required to acquire 2 or more credits from the subjects shown at left.   |   |
|                                      |                                    | Economy and Society                    | 2                       |   |   |
|                                      |                                    | Law, Politics and Society              | 2                       |   |   |
|                                      |                                    | Study of Society                       | 2                       |   |   |
|                                      | Nature Theory                      | Gender and Human Society               | 2                       | Students are required to acquire 2 or more credits from the subjects shown at left.   |   |
|                                      |                                    | Study of the Nature                    | 2                       |   |   |
|                                      |                                    | Scientific Technology and Energy       | 2                       |   |   |
|                                      |                                    | Life and Nature                        | 2                       |   |   |
|                                      |                                    | Nature and Environment                 | 2                       |   |   |
|                                      | Developmental Subjects             | Humanities                             | Science and Information | 2   |   |
| Logic                                |                                    |  | 2                       |   |   |
| Philosophy                           |                                    |  | 2                       |   |   |
| Literature                           |                                    |  | 2                       |   |   |
| Religion                             |                                    |  | 2                       |   |   |
| Education                            |                                    |  | 2                       |   |   |
| History                              |                                    |  | 2                       |   |   |
| Linguistics                          |                                    |  | 2                       |   |   |
| Social Sciences                      |                                    | Sociology                              | 2                       | Students are required to acquire 2 or more credits from the subjects shown at left.   |   |
|                                      |                                    | Psychology                             | 2                       |   |   |
|                                      |                                    | Law                                    | 2                       |   |   |
|                                      |                                    | Japanese Constitutional Law            | 2                       |   |   |
|                                      |                                    | Politics                               | 2                       |   |   |
|                                      |                                    | Economics                              | 2                       |   |   |
|                                      |                                    | Cultural Anthropology                  | 2                       |   |   |
| Natural Sciences                     | Mathematics                        | Human Geography                        | 2                       | Students are required to acquire 2 or more credits from the subjects shown at left, excluding "Foundation of Mathematics A, B, and C".  |   |
|                                      |                                    | Foundation of Mathematics A            | 2                       |   |   |
|                                      |                                    | Foundation of Mathematics B            | 2                       |   |   |
|                                      |                                    | Foundation of Mathematics C            | 2                       |   |   |
|                                      |                                    | Foundation of Calculus                 | 2                       |   |   |
|                                      |                                    | Calculus A                             | 2                       |   |   |
|                                      |                                    | Calculus B                             | 2                       |   |   |
|                                      |                                    | Calculus C                             | 2                       |   |   |
|                                      |                                    | Calculus D                             | 2                       |   |   |
|                                      |                                    | Foundation of Linear Algebra           | 2                       |   |   |
|                                      | Physics                            | Linear Algebra A                       | 2                       | Students are required to acquire 2 or more credits from the subjects shown at left, excluding "Foundation of Physics".  |   |
|                                      |                                    | Linear Algebra B                       | 2                       |   |   |
|                                      |                                    | Probability & Statistics               | 2                       |   |   |
|                                      |                                    | Foundation of Physics                  | 2                       |   |   |
|                                      |                                    | Physics A                              | 2                       |   |   |
| Natural Sciences                     | Chemistry                          | Physics B-1                            | 1                       | <p>Students are required to acquire 4 or more credits from the subjects shown at left, excluding "Foundation of Chemistry".</p> <p>Students are required to acquire 4 or more credits from the subjects shown at left, excluding "Foundation of Biology".</p> |   |
|                                      |                                    | Physics B-2                            | 1                       |   |   |
|                                      |                                    | Physics C                              | 2                       |   |   |
|                                      |                                    | Physics D                              | 2                       |   |   |
|                                      | Biology                            | Foundation of Chemistry                | 2                       |   |   |
|                                      |                                    | Chemistry A                            | 2                       |   |   |
|                                      |                                    | Chemistry B                            | 2                       |   |   |
|                                      |                                    | Chemistry C                            | 2                       |   |   |
|                                      | Space and Earth Science            | Foundation of Biology                  | 2                       |   |   |
|                                      |                                    | Biology A                              | 2                       |   |   |
|                                      |                                    | Biology B                              | 2                       |   |   |
|                                      |                                    | Biology C                              | 2                       |   |   |
|                                      |                                    | Elementary Environmental Earth Science | 2                       |   |   |
|                                      |                                    | Elementary Astronomy                   | 2                       |   |   |
|                                      |                                    | Earth System Science                   | 2                       |   |   |
| Mineralogy, Petrology & Geochemistry | 2                                  |  |                         |   |   |
| Science Experiments                  | Physical Geography                 | 2                                      |                         |   |   |
|                                      | Astronomy                          | 2                                      |                         |   |   |
| Applied Sciences                     | Geophysics                         | 2                                      |                         |   |   |
|                                      | Introductory Science Experiments-1 | 1                                      | Required                |   |   |
|                                      | Introductory Science Experiments-2 | 1                                      | Required                |   |   |
|                                      | Integrated Courses                 | 2                                      |                         |   |   |
|                                      | Current Topics Courses             | 2                                      |                         |   |   |
|                                      | Modern Scholarship                 | 2                                      |                         |   |   |

|                              |                             |  |                               |                             |                     |   |   |
|------------------------------|-----------------------------|--|-------------------------------|-----------------------------|---------------------|---|---|
| Common Subjects              | Foreign Languages           | Conversion Courses/Small Class Courses | Introductory Seminar          | 2                           | Required            | <p>* After taking "English A1" (1 credit), students can also take "English A1-1" (0.5 credits) and "English A2-2" (0.5 credits). Similarly, when students take "English A2", "English B1", "English B2", "English C1", "English C2", "Practical English Skills 1", or "Practical English Skills 2", they can also take "Subject Name-1, 2".</p> <p>△ Students must take 1 credit from "English C1-1, C1-2" or 1 credit from "Practical English Skills 1-1, 1-2".</p> <p>▲ Students must take 1 credit from "English C2-1, C2-2" or 1 credit from "Practical English Skills 2-1, 2-2".</p> |   |
|                              |                             | English                                | English A1                    | 1                           | *See Remarks        |   |   |
|                              |                             |  | English A1-1                  | 0.5                         | Required            |   |   |
|                              |                             |  | English A1-2                  | 0.5                         | Required            |   |   |
|                              |                             |  | English A2                    | 1                           | *See Remarks        |   |   |
|                              |                             |  | English A2-1                  | 0.5                         | Required            |   |   |
|                              |                             |  | English A2-2                  | 0.5                         | Required            |   |   |
|                              |                             |  | English B1                    | 1                           | *See Remarks        |   |   |
|                              |                             |  | English B1-1                  | 0.5                         | Required            |   |   |
|                              |                             |  | English B1-2                  | 0.5                         | Required            |   |   |
|                              |                             |  | English B2                    | 1                           | *See Remarks        |   |   |
|                              |                             |  | English B2-1                  | 0.5                         | Required            |   |   |
|                              |                             |  | English B2-2                  | 0.5                         | Required            |   |   |
|                              |                             |  | English C1                    | 1                           | *See Remarks        |   |   |
|                              |                             |  | English C1-1                  | 0.5                         | △ Required elective |   |   |
|                              |                             |  | English C1-2                  | 0.5                         | △ Required elective |   |   |
|                              |                             |  | English C2                    | 1                           | *See Remarks        |   |   |
|                              |                             |  | English C2-1                  | 0.5                         | ▲ Required elective |   |   |
|                              |                             |  | English C2-2                  | 0.5                         | ▲ Required elective |   |   |
|                              |                             |  | Practical English Skills 1    | 1                           | *See Remarks        |   |   |
|                              |                             |  | Practical English Skills 1-1  | 0.5                         | △ Required elective |   |   |
|                              |                             |  | Practical English Skills 1-2  | 0.5                         | △ Required elective |   |   |
|                              |                             |  | Practical English Skills 2    | 1                           | *See Remarks        |   |   |
|                              |                             |  | Practical English Skills 2-1  | 0.5                         | ▲ Required elective |   |   |
|                              |                             |  | Practical English Skills 2-2  | 0.5                         | ▲ Required elective |   |   |
|                              |                             |  | Introductory Language Courses | Introduction to German I-1  | 1                   |   | Students are required to acquire 4 or more credits from Introduction to [Language] I-1, I-2, II-1, and II-2 for the same Introductory Language. |
|                              |                             |  |                               | Introduction to German I-2  | 1                   |   |   |
|                              |                             |  |                               | Introduction to German II-1 | 1                   |   |   |
|                              |                             |  |                               | Introduction to German II-2 | 1                   |   |   |
|                              |                             |  |                               | German in Practice I-1      | 1                   |   |   |
|                              |                             |  |                               | German in Practice I-2      | 1                   |   |   |
|                              |                             |  |                               | German in Practice II-1     | 1                   |   |   |
|                              |                             |  |                               | German in Practice II-2     | 1                   |   |   |
|                              |                             |  |                               | Introduction to French I-1  | 1                   |   |   |
|                              | Introduction to French I-2  | 1                                      |                               |                             |                     |   |   |
|                              | Introduction to French II-1 | 1                                      |                               |                             |                     |   |   |
|                              | Introduction to French II-2 | 1                                      |                               |                             |                     |   |   |
|                              | French in Practice I-1      | 1                                      |                               |                             |                     |   |   |
|                              | French in Practice I-2      | 1                                      |                               |                             |                     |   |   |
|                              | French in Practice II-1     | 1                                      |                               |                             |                     |   |   |
|                              | French in Practice II-2     | 1                                      |                               |                             |                     |   |   |
|                              | French in Practice III-1    | 1                                      |                               |                             |                     |   |   |
|                              | French in Practice III-2    | 1                                      |                               |                             |                     |   |   |
|                              | French in Practice IV-1     | 1                                      |                               |                             |                     |   |   |
|                              | French in Practice IV-2     | 1                                      |                               |                             |                     |   |   |
|                              | Introduction to Russian I-1 | 1                                      |                               |                             |                     |   |   |
|                              | Introduction to Russian I-2 | 1                                      |                               |                             |                     |   |   |
| Introduction to Russian II-1 | 1                           |  |                               |                             |                     |   |   |
| Introduction to Russian II-2 | 1                           |  |                               |                             |                     |   |   |
| Russian in Practice I-1      | 1                           |  |                               |                             |                     |   |   |
| Russian in Practice I-2      | 1                           |  |                               |                             |                     |   |   |
| Russian in Practice II-1     | 1                           |  |                               |                             |                     |   |   |
| Russian in Practice II-2     | 1                           |  |                               |                             |                     |   |   |
| Russian in Practice III-1    | 1                           |  |                               |                             |                     |   |   |
| Russian in Practice III-2    | 1                           |  |                               |                             |                     |   |   |
| Russian in Practice IV-1     | 1                           |  |                               |                             |                     |   |   |
| Russian in Practice IV-2     | 1                           |  |                               |                             |                     |   |   |

|                                     |  |                               |  |            |   |  |
|-------------------------------------|--|-------------------------------|--|------------|---|--|
| Common Subjects                     | Foreign Languages                          | Introductory Language Courses | Introduction to Spanish I-1  | 1          |   |  |
|                                     |  |                               | Introduction to Spanish I-2  | 1          |   |  |
|                                     |  |                               | Introduction to Spanish II-1   | 1          |   |  |
|                                     |  |                               | Introduction to Spanish II-2   | 1          |   |  |
|                                     |  |                               | Spanish in Practice I-1  | 1          |   |  |
|                                     |  |                               | Spanish in Practice I-2  | 1          |   |  |
|                                     |  |                               | Spanish in Practice II-1   | 1          |   |  |
|                                     |  |                               | Spanish in Practice II-2   | 1          |   |  |
|                                     |  |                               | Introduction to Chinese I-1  | 1          |   |  |
|                                     |  |                               | Introduction to Chinese I-2  | 1          |   |  |
|                                     |  |                               | Introduction to Chinese II-1   | 1          |   |  |
|                                     |  |                               | Introduction to Chinese II-2   | 1          |   |  |
|                                     |  |                               | Chinese in Practice I-1  | 1          |   |  |
|                                     |  |                               | Chinese in Practice I-2  | 1          |   |  |
|                                     |  |                               | Chinese in Practice II-1   | 1          |   |  |
|                                     |  |                               | Chinese in Practice II-2   | 1          |   |  |
|                                     |  |                               | Chinese in Practice III-1  | 1          |   |  |
|                                     |  |                               | Chinese in Practice III-2  | 1          |   |  |
|                                     |  |                               | Chinese in Practice IV-1   | 1          |   |  |
|                                     |  |                               | Chinese in Practice IV-2   | 1          |   |  |
|                                     |  |                               | Introduction to Korean I-1   | 1          |   |  |
|                                     |  |                               | Introduction to Korean I-2   | 1          |   |  |
|                                     |  |                               | Introduction to Korean II-1  | 1          |   |  |
|                                     |  |                               | Introduction to Korean II-2  | 1          |   |  |
|                                     |  |                               | Korean in Practice I-1   | 1          |   |  |
|                                     |  |                               | Korean in Practice I-2   | 1          |   |  |
|                                     |  |                               | Korean in Practice II-1  | 1          |   |  |
|                                     |  |                               | Korean in Practice II-2  | 1          |   |  |
|                                     |  |                               | Korean in Practice III-1   | 1          |   |  |
|                                     |  |                               | Korean in Practice III-2   | 1          |   |  |
|                                     |  |                               | Korean in Practice IV-1  | 1          |   |  |
|                                     |  |                               | Korean in Practice IV-2  | 1          |   |  |
|                                     |  |                               | Introductory Language Courses  | Greek I    | 2 |  |
|                                     |  |                               |  | Greek II   | 2 |  |
|                                     |  |                               |  | Sanskrit I | 2 |  |
|                                     | Sanskrit II                                | 2                             |  |            |   |  |
|                                     | Latin I                                    | 2                             |  |            |   |  |
|                                     | Latin II                                   | 2                             |  |            |   |  |
|                                     | Mongolian I                                | 2                             |  |            |   |  |
|                                     | Mongolian II                               | 2                             |  |            |   |  |
|                                     | Italian I                                  | 2                             |  |            |   |  |
|                                     | Italian II                                 | 2                             |  |            |   |  |
|                                     | Czech I                                    | 2                             |  |            |   |  |
|                                     | Czech II                                   | 2                             |  |            |   |  |
|                                     | Arabic I                                   | 2                             |  |            |   |  |
| Arabic II                           | 2  |                               |  |            |   |  |
| Information Science Course          | An Introduction to Information Science A-1 | 1                             |  |            |   |  |
|                                     | An Introduction to Information Science A-2 | 1                             |  |            |   |  |
|                                     | An Introduction to Information Science B   | 2                             |  |            |   |  |
| Health and Physical Education       | Sports A                                   | 1                             | Required   |            |   |  |
|                                     | Sports B                                   | 1                             |  |            |   |  |
|                                     | Health                                     | 2                             | Required   |            |   |  |
| Subjects for International Students | Japanese A-1                               | 0.5                           | Students may acquire up to 4 credits as foreign language (Introductory Language) subjects. |            |   |  |
|                                     | Japanese A-2                               | 0.5                           |  |            |   |  |
|                                     | Japanese B-1                               | 0.5                           |  |            |   |  |
|                                     | Japanese B-2                               | 0.5                           |  |            |   |  |
|                                     | Japanese C-1                               | 0.5                           |  |            |   |  |
|                                     | Japanese C-2                               | 0.5                           |  |            |   |  |
|                                     | Japanese D-1                               | 0.5                           |  |            |   |  |
|                                     | Japanese D-2                               | 0.5                           |  |            |   |  |
|                                     | Japanese E-1                               | 0.5                           |  |            |   |  |
|                                     | Japanese E-2                               | 0.5                           |  |            |   |  |
|                                     | Japanese F-1                               | 0.5                           |  |            |   |  |
|                                     | Japanese F-2                               | 0.5                           |  |            |   |  |
|                                     | Japanese G-1                               | 0.5                           |  |            |   |  |
|                                     | Japanese G-2                               | 0.5                           |  |            |   |  |
|                                     | Japanese H-1                               | 0.5                           |  |            |   |  |
|                                     | Japanese H-2                               | 0.5                           |  |            |   |  |
|                                     | Japanese I-1                               | 0.5                           |  |            |   |  |
|                                     | Japanese I-2                               | 0.5                           |  |            |   |  |
| Japanese J-1                        | 0.5  |                               |  |            |   |  |
| Japanese J-2                        | 0.5  |                               |  |            |   |  |

Appendix 2 [Department of Pharmaceutical Sciences]

| Category  | Subject                                   | Total No. of Class Hours | No. of Credits | Class-taking Method                                  | Remarks   |  |
|---|---|--------------------------|----------------|--|---|--|
| Basic Educational Subjects                            | Introduction to Pharmaceutical Sciences 1 | 30                       | 2              | Required   | Students are required to acquire 66 or more credits, including from the subjects shown at left. |  |
|   | Introduction to Pharmaceutical Sciences 2 | 15                       | 1              | Required   |   |  |
|   | Organic Chemistry 1                       | 30                       | 2              | Students are required to acquire 13 or more credits. |   |  |
|   | Organic Chemistry 2                       | 30                       | 2              |  |   |  |
|   | Organic Chemistry 3                       | 30                       | 2              |  |   |  |
|   | Organic Chemistry 4                       | 30                       | 2              |  |   |  |
|   | Organic Chemistry 5                       | 30                       | 2              |  |   |  |
|   | Pharmacognosy 1                           | 30                       | 2              |  |   |  |
|   | Pharmacognosy 2                           | 30                       | 2              |  |   |  |
|   | Medicinal Chemistry 1                     | 15                       | 1              |  |   |  |
|   | Organic Reaction Chemistry                | 30                       | 2              |  |   |  |
|   | Analytical Chemistry 1                    | 30                       | 2              |  |   | Students are required to acquire 12 or more credits. |
|   | Analytical Chemistry 2                    | 30                       | 2              |  |   |  |
|   | Analytical Chemistry 3                    | 30                       | 2              |  |   |  |
|   | Physical Chemistry 1                      | 30                       | 2              |  |   |  |
|   | Physical Chemistry 2                      | 30                       | 2              |  |   |  |
|   | Physical Chemistry 3                      | 30                       | 2              |  |   |  |
|   | Radiochemistry                            | 30                       | 2              |  |   |  |
|   | Structural Chemistry                      | 30                       | 2              | Students are required to acquire 10 or more credits. |   |  |
|   | Functional Morphology 1                   | 30                       | 2              |  |   |  |
|   | Functional Morphology 2                   | 30                       | 2              |  |   |  |
|   | Biochemistry 1                            | 30                       | 2              |  |   |  |
|   | Biochemistry 2                            | 30                       | 2              |  |   |  |
|   | Biochemistry 3                            | 30                       | 2              |  |   |  |
|   | Biochemistry 4                            | 30                       | 2              |  |   |  |
|   | Molecular Biology                         | 30                       | 2              |  |   |  |
|   | Pharmacology 1                            | 30                       | 2              | Students are required to acquire 12 or more credits. |   |  |
|   | Pharmacology 2                            | 30                       | 2              |  |   |  |
|   | Pharmacology 3                            | 30                       | 2              |  |   |  |
|   | Pharmacology 4                            | 30                       | 2              |  |   |  |
|   | Health Chemistry 1                        | 30                       | 2              |  |   |  |
|   | Pharmaceutics 1                           | 30                       | 2              |  |   |  |
| Pharmaceutics 2                                       | 30  | 2                        |                |  |   |  |
| Environmental Health Science                          | 30  | 2                        |                |  |   |  |
| General Training in Physical Chemistry                |   | 2                        | Required       |  |   |  |
| General Training in Organic Chemistry 1               |   | 2                        | Required       |  |   |  |
| General Training in Organic Chemistry 2               |   | 1                        | Required       |  |   |  |
| General Training in Life Sciences                     |   | 3                        | Required       |  |   |  |
| General Training in Biopharmacy and Pharmacy Practice |   | 2                        | Required       |  |   |  |

|                                 |  |    |    |   |  |
|---------------------------------|--|----|----|---|--|
| Advanced Educational Subjects   | Natural Products Chemistry                   | 30 | 2  | Students are required to acquire 8 or more credits. |  |
|                                 | Organic Synthesis                            | 30 | 2  |   |  |
|                                 | Medicinal Chemistry 2                        | 15 | 1  |   |  |
|                                 | Structure Analysis of Organic Compound       | 30 | 2  |   |  |
|                                 | Principles of Clinical Medicine              | 30 | 2  |   |  |
|                                 | Drug Design and Development                  | 30 | 2  |   |  |
|                                 | Imaging Diagnosis                            | 15 | 1  |   |  |
|                                 | Pharmaceutical Laws 1                        | 15 | 1  |   |  |
|                                 | Advanced Training in Pharmaceutical Sciences |    | 6  | Required  |  |
| Researcher Educational Subjects | Research Training                            |    | 20 | Required  |  |

## Appendix 3 [Department of Pharmacy]

| Category  | Subject                                   | Total No. of Class | No. of Credits | Class-taking Method                                  | Remarks  |  |
|---|---|--------------------|----------------|--|--|--|
| Basic Educational Subjects                            | Introduction to Pharmaceutical Sciences 1 | 30                 | 2              | Required   | In order to take subjects offered from the 2nd semester of their third year, students must acquire 66 or more credits through the class-taking method shown at left. |  |
|   | Introduction to Pharmaceutical Sciences 2 | 15                 | 1              | Required   |  |  |
|   | Organic Chemistry 1                       | 30                 | 2              | Students are required to acquire 13 or more credits. |  |  |
|   | Organic Chemistry 2                       | 30                 | 2              |  |  |  |
|   | Organic Chemistry 3                       | 30                 | 2              |  |  |  |
|   | Organic Chemistry 4                       | 30                 | 2              |  |  |  |
|   | Organic Chemistry 5                       | 30                 | 2              |  |  |  |
|   | Pharmacognosy 1                           | 30                 | 2              |  |  |  |
|   | Pharmacognosy 2                           | 30                 | 2              |  |  |  |
|   | Medicinal Chemistry 1                     | 15                 | 1              |  |  |  |
|   | Organic Reaction Chemistry                | 30                 | 2              |  |  |  |
|   | Analytical Chemistry 1                    | 30                 | 2              |  |  | Students are required to acquire 12 or more credits. |
|   | Analytical Chemistry 2                    | 30                 | 2              |  |  |  |
|   | Analytical Chemistry 3                    | 30                 | 2              |  |  |  |
|   | Physical Chemistry 1                      | 30                 | 2              |  |  |  |
|   | Physical Chemistry 2                      | 30                 | 2              |  |  |  |
|   | Physical Chemistry 3                      | 30                 | 2              |  |  |  |
|   | Radiochemistry                            | 30                 | 2              |  |  |  |
|   | Structural Chemistry                      | 30                 | 2              |  |  |  |
|   | Functional Morphology 1                   | 30                 | 2              | Students are required to acquire 10 or more credits. |  |  |
|   | Functional Morphology 2                   | 30                 | 2              |  |  |  |
|   | Biochemistry 1                            | 30                 | 2              |  |  |  |
|   | Biochemistry 2                            | 30                 | 2              |  |  |  |
|   | Biochemistry 3                            | 30                 | 2              |  |  |  |
|   | Biochemistry 4                            | 30                 | 2              |  |  |  |
|   | Molecular Biology                         | 30                 | 2              |  |  |  |
|   | Pharmacology 1                            | 30                 | 2              |  |  | Students are required to acquire 12 or more credits. |
|   | Pharmacology 2                            | 30                 | 2              |  |  |  |
|   | Pharmacology 3                            | 30                 | 2              |  |  |  |
|   | Pharmacology 4                            | 30                 | 2              |  |  |  |
|   | Health Chemistry 1                        | 30                 | 2              |  |  |  |
|   | Pharmaceutics 1                           | 30                 | 2              |  |  |  |
| Pharmaceutics 2                                       | 30  | 2                  |                |  |  |  |
| Environmental Health Science                          | 30  | 2                  |                |  |  |  |
| General Training in Physical Chemistry                |   | 2                  | Required       |  |  |  |
| General Training in Organic Chemistry 1               |   | 2                  | Required       |  |  |  |
| General Training in Organic Chemistry 2               |   | 1                  | Required       |  |  |  |
| General Training in Life Sciences                     |   | 3                  | Required       |  |  |  |
| General Training in Biopharmacy and Pharmacy Practice |   | 2                  | Required       |  |  |  |

|                                       |   |    |          |          |   |   |
|---------------------------------------|---|----|----------|----------|---|---|
| Advanced Educational Subjects         | Health Chemistry 2                                      |    | 2        | Required | Students are required to acquire 27 or more credits, including required subjects. | In order to take practical training subjects, students must acquire 45 or more credits through the class-taking method shown at left. |
|                                       | Pharmacostatistics                                      |    | 1        | Required |   |   |
|                                       | Immunology  |    | 2        |          |   |   |
|                                       | Food Hygiene and Safety                                 |    | 2        | Required |   |   |
|                                       | General Introduction to Various Forms of Illness        |    | 2        |          |   |   |
|                                       | Fundamentals of Practical Pharmacy                      |    | 2        | Required |   |   |
|                                       | Pharmacotherapeutics 1                                  |    | 2        | Required |   |   |
|                                       | Pharmacotherapeutics 2                                  |    | 2        | Required |   |   |
|                                       | Pharmacotherapeutics 3                                  |    | 2        | Required |   |   |
|                                       | Infectious Diseases                                     |    | 2        |          |   |   |
|                                       | Pathology   |    | 2        |          |   |   |
|                                       | Human Genomics  |    | 1        | Required |   |   |
|                                       | Bioorganic Chemistry                                    |    | 2        | Required |   |   |
|                                       | Medical Informatics                                     |    | 2        | Required |   |   |
|                                       | Kampo Medicine  |    | 2        |          |   |   |
|                                       | Clinical Pharmacology                                   |    | 2        |          |   |   |
|                                       | Clinical Laboratory Medicine                            |    | 2        | Required |   |   |
|                                       | Clinical Pharmaceutics                                  |    | 2        | Required |   |   |
|                                       | Prescription Analysis                                   |    | 2        |          |   |   |
|                                       | Pharmaceutic Laws 1                                     |    | 1        | Required |   |   |
| Pharmaceutic Laws 2                   |   | 1  | Required |          |   |   |
| Non-Prescription Medications and Care |   | 1  |          |          |   |   |
| Clinical Communication Skills         |   | 1  | Required |          |   |   |
| Pharmaceutical English                |   | 1  | Required |          |   |   |
| Advanced Training in Pharmacy 1       |   | 6  | Required |          |   |   |
| Advanced Training in Pharmacy 2       |   | 12 | Required |          |   |   |
| On-site Training Subjects             | General Training in Biopharmacy and Pharmacy Practice 1 |    | 2        | Required |   |   |
|                                       | General Training in Biopharmacy and Pharmacy Practice 2 |    | 1        | Required |   |   |
|                                       | Basic Training in Biopharmacy and Pharmacy Practice     |    | 4        | Required |   |   |
|                                       | Pharmacy Practice in Hospital                           |    | 10       | Required |   |   |
|                                       | Pharmacy Practice in Community                          |    | 10       | Required |   |   |
| Researcher Educational Subjects       | Practice in Pharmaceutical Sciences                     |    | 2        | Required |   |   |
|                                       | Research Training                                       |    | 20       | Required |   |   |

# Tohoku University Graduate School of Pharmaceutical Sciences

## Regulations

(Enacted May 23, 1961)

Latest Revision. April 1, 2022

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### Chapter 1. General Provisions

Article 1. The purpose of these regulations is to prescribe matters pertaining to Enrollment, Education Methods, and Course Completion, Etc., for the Tohoku University Graduate School of Pharmaceutical Sciences (hereinafter referred to as the “Graduate School”) in addition to the provisions prescribed in the Tohoku University Graduate School of Pharmaceutical Sciences General Rules (enacted November 16, 1953) and Tohoku University Degree Regulations (enacted January 1, 1955), provided, however, that the Graduate School Dean shall have the ability to prescribe special case exemptions as necessary, following discussion by the Graduate School of Pharmaceutical Sciences Faculty Council, notwithstanding these regulations.

Article 1-2. The Graduate School aims to nurture pharmacy researchers and technicians who have acquired a knowledge and skills in a broad range of pharmacy fields and are equipped with creative inventiveness and international competitive ability.

Article 2. The Graduate School shall offer the following Majors.

Molecular Pharmaceutical Science

Life and Pharmaceutical Science

Clinical Pharmaceutical Science

2 The Molecular Pharmaceutical Science and Life and Pharmaceutical Science majors shall comprise programs divided into Two-Year Master’s Program (hereinafter referred to as “Master’s Program”) and Three-Year Doctoral Program (hereinafter referred to as “Doctoral Program”) (hereinafter referred to as “Division Programs”); and the Clinical Pharmaceutical Science major shall comprise a program for studying pharmacy (hereinafter referred to as the “Doctoral Program (Pharmacy)”).

3 The Doctoral Program (Pharmacy) shall comprise the following course categories.



Pharmacy Course

Oncology Pharmacist Training Course

Supergeneralist Pharmacist Training Course

Chapter 2. Enrollment, Re-enrollment, Advance to Higher Education Level, Inter-educational Institution Transfer, Course Transfer, and Inter-university Transfer

Article 3. Methods for screening applicants wishing to enroll in the Graduate School shall be prescribed separately by the Graduate School Dean following discussion by the Graduate School Council.

Article 4. If a person who has withdrawn or been expelled from the Graduate School wishes to re-enroll in the Graduate School, the Faculty Council may give permission for re-enrollment following screening of the applicant only in the case that the person is applying for re-enrollment within two (2) years of their withdrawal or expulsion, provided, however, that permission may be given for persons to re-enroll more than two (2) years after their withdrawal or expulsion in special cases.

2 The screening method of the preceding paragraph shall be prescribed on a case-by-case basis by the Graduate School Dean following discussion by the Graduate School Council.

3 Full or partial recognition of subjects already taken and/or credits already acquired by, and the period of enrollment of, persons granted permission to re-enroll in the Graduate School in accordance with the provisions of Paragraph 1 shall be made on a case-by-case basis by the Graduate School Dean following screening by the Graduate School Council.

Article 5. Faculty of Pharmaceutical Sciences graduates who wish to advance to the Graduate School shall be granted permission to enroll in the Graduate School following screening.

2 The screening method of the preceding paragraph shall be prescribed on a case-by-case basis by the Graduate School Dean following discussion by the Graduate School Council.

Article 6. In the case that a person requests an Inter-educational Institution Transfer, Course Transfer, or Inter-university Transfer into the Graduate School, this shall be permitted following screening of the applicant only in the case that a place is available.

2 The screening method of the preceding paragraph shall be prescribed on a case-by-case basis by the Graduate School Dean following discussion by the Graduate School Council.

3 Full or partial recognition of subjects already taken and/or credits already acquired by, and the period of enrollment of, persons granted permission to make a Course Transfer or Inter-university Transfer into the Graduate School in accordance with the provisions of Paragraph 1 shall be made on a case-by-case basis by the Graduate School Dean following screening by the Graduate School Council.

Article 6-2. In the case that credits acquired by students granted permission to enroll in the Master's Program for subjects taken in the educational courses at the institutions listed below prior to enrolling in the Graduate School (including credits acquired as a Non-degree Student) are recognized as educationally beneficial, the relevant credits shall be deemed to have been acquired at the Graduate School.

(i) Tohoku University Graduate School or graduate school of another Japanese university (hereinafter referred to as “Another Graduate School”).

(ii) Graduate school of an overseas university or equivalent higher education institution, etc. (hereinafter referred to as “Overseas Graduate School, Etc.”)

(iii) Educational facility in Japan providing graduate school courses under the school education system of another country and which is designated separately by the Japanese Minister of Education, Culture, Sports, Science and Technology, or the United Nations University as prescribed in Article 15 Item 5 of the General Rules (hereinafter referred to as an “Educational Facility, Etc., Providing Foreign Graduate School Courses”).

2 In accordance with the provision of the preceding paragraph, the maximum number of credits that may be recognized as credits obtained in the Graduate School shall be (6) credits in total.

### Chapter 3. Education Methods, Etc.

Article 7. Graduate School education shall comprise classes on course subjects and guidance on preparation of degree theses (hereinafter referred to as “Research Supervision”).

2 Subject categories shall comprise Major subjects and related subjects.

3 Subjects, number of credits, and class-taking methods for each Graduate School Major shall be prescribed separately.

Article 8. The class schedule and class instructor for a subject shall be prescribed by the Graduate School Dean at the beginning of the academic year following discussion by the Graduate School Council.

Article 9. In order to provide guidance for students’ study and research, the Graduate School Dean shall assign a Supervisor (Supervisory Faculty Member) to each student.

Article 10. Students are required to submit a list of subjects that they intend to study under the guidance of their Supervisor to the Graduate School Dean at the beginning of the academic year.

Article 11. When deemed necessary for study purposes, some or all lectures for a subject may be changed to experiments or research as prescribed by the Graduate School Dean following discussion by the Graduate School Council.

Article 11-2. In the case that a student requests to take curriculum subjects systematically over a certain period of time exceeding the standard term of study due to circumstances such as the students having a full-time job, permission to do so may be granted following discussion by the Graduate School Council.

2 In the case that a student who has been granted permission to study systematically for an extended period in accordance with the previous paragraph (hereinafter referred to as an “Extended Study Period Student” requests that the said period of enrollment be shortened, permission to do this may be granted by the Graduate School Dean following discussion by the Graduate School Council.

3 In addition to the provisions of the preceding two (2) paragraphs, any necessary matters pertaining to the handling Extended Study Period Students shall be prescribed by the Graduate School Dean following discussion by the Graduate School Council.

Article 12. With the permission of the Graduate School Dean, students in the Master's Program may take subjects from a Major outside their Major, or from another graduate school, or from the Graduate School of Educational Informatics Education Division Master's Program, or from a university faculty; students in the Doctoral Program or Doctoral Program (Pharmacy) may take subjects from a Major outside their Major, or from the Master's Program, or from another graduate school, or from the Graduate School of Educational Informatics Education Division, or from a university faculty. Students may also receive part of their Research Supervision from another graduate school or the Graduate School of Educational Informatics Education Division. In this case, the student is required to carry out the stipulated procedures for the relevant graduate school or university faculty or the Education Division.

2 In addition to the stipulations of the preceding paragraph, with regard to courses stipulated in the Tohoku University Common Graduate School Subject Regulations (No. 41, 2022) (hereinafter referred to as "Common Graduate School Subjects" in this section), students who have been authorized by the head of the Graduate Program may attend the courses stated in Annexed Table 1 of the said Regulations as part of the Master's Program, and the courses stated in Annexed Table 2 or Annexed Tables 3–5 of the said Regulations as part of the Doctoral Program or the Pharmaceutical Sciences Program. In this case, the procedures for taking Common Graduate School Subjects shall be as stipulated in the said Regulations, and as stipulated separately by the Graduate School Dean following discussion by the Graduate School Council.

3 Subjects taken in accordance with the preceding two paragraph may be recognized as Related Subjects following discussion by the Graduate School Council.

Article 13. Students from other graduate schools or the Graduate School of Educational Informatics Education Division who request permission to take subjects or receive Research Supervision in the Graduate School may be granted permission to do so.

2 The requests for permission to take subjects or receive Research Supervision in the graduate school in the preceding paragraph must be submitted through the Dean of the Graduate School with which the student making the request is affiliated or the Head of the Education Division, whichever applies.

Article 14. Recognition of taking a subject shall be decided by means of examinations, provided, however, that a student's usual classwork results and/or research report results may be substituted for examination results in the case that there are special circumstances.

Article 15. Examinations shall be held at the end of the semester in which a subject is completed.

Article 16. Subjects for which examinations can be taken shall be limited to subjects taken by the student in accordance with prescribed procedures.

Article 17. Students who are unable to sit an examination for an unavoidable reasons such as illness may take a make-up examination only if they submit a request for a make-up examination within three (3) days of the end of the relevant examination.

Article 18. In the case that a student does not pass an examination but it is deemed that the student could pass with a few extra days of guidance, the fail decision shall be postponed and the student shall undergo reexamination.

2 The period of postponement in the preceding paragraph may not be extended past the next semester.

Article 19. Evaluation scores for examination results shall be categorized as follows, with 100 points the maximum score; provided, however, that Pass and Fail scores shall be decided for individual subjects.

AA Between 90 and 100 points

A Between 80 and 89 points

B Between 70 and 79 points

C Between 60 and 69 points

D 59 points or less

2 Evaluation scores of AA, A, B, and C in the preceding paragraph shall be passing scores, and an evaluation score of D shall be a failing score.

#### Chapter 4. Study at Other Graduate Schools, Etc., and Study Abroad

Article 20. Graduate School students may take subjects at another graduate school with the permission of the Graduate School Dean following discussion by the Graduate School Council.

2 The provision of the preceding paragraph shall apply mutatis mutandis in the case that a student takes a subject in Japan through a correspondence course offered by an Overseas Graduate School, Etc., or in the case that a student takes a subject in the relevant curriculum of an Educational Facility, Etc., Providing Foreign Graduate School Courses in Japan.

Article 21. With the permission of the Graduate School Dean, Graduate School students may partly receive Research Supervision at another graduate school or research institution (hereinafter referred to as “Another Graduate School, Etc.”), or Educational Facility, Etc., Providing Foreign Graduate School Courses in Japan as stipulated by the Graduate School Dean following discussion by the Graduate School Council. In this case, the period for which Master’s Program students may receive the said Research Supervision shall not exceed one (1) year.

Article 22. In the case that the Graduate School Dean, following discussion by the Graduate School Council, deems it educationally beneficial for a student to study at an Overseas Graduate School, Etc., the student may be granted permission to study abroad at the relevant Overseas Graduate School, Etc., following discussion with the relevant Overseas Graduate School, Etc.

2 The period a student studies abroad at an Overseas Graduate School, Etc., shall be included in the student’s number of years enrolled in the Graduate School.

3 The provision of Paragraph 1 shall apply mutatis mutandis in the case that the student studies at an Overseas University, Etc., while taking a Leave of Absence from the Graduate School.

Article 23. Credit for subjects taken in accordance with the provisions of Article 20 Paragraphs 1 and 2 and the results a student attains from receiving Research Supervision in accordance with the provisions of Article 21, or study abroad in accordance with the provisions of Paragraphs 1 and 3 of the preceding article, or from study abroad conducted while taking a leave of absence from the Graduate School shall be recognized by the as credits or Research supervision acquired in the Graduate School when recognized as such by the Graduate School Dean following screening by the Graduate School Council.

2 The maximum number of credits that may be recognized as credits obtained in the Graduate School in accordance with the provisions of the preceding paragraph shall be ten (10) credits in total.

Article 23-2. In addition to the provisions prescribed in this Chapter, following discussion by the Graduate School Council the Graduate School Dean shall separately prescribe any necessary provisions regarding students taking subjects at another Graduate School, or taking subjects in Japan through a correspondence course offered by an Overseas Graduate School, Etc., or taking subjects in the relevant curriculum of an Educational Facility, Etc., Providing Foreign Graduate School Courses in Japan, or studying abroad at an Overseas Graduate School, Etc., or studying abroad at an Overseas Graduate School, Etc., while taking a leave of absence from the Graduate School.

#### Chapter 5. Course Completion

Article 24. In order to complete the Graduate School Master's Program, students are required to be enrolled in the Master's Program from a period of two (2) or more years; acquire thirty (30) or more credits from Specialized Subjects and Related Subjects in their Major; submit a Master's Thesis after receiving the necessary Research Supervision; and pass the Master's Thesis Review and Final Examination; provided, however, that with regard to the required period of enrollment, students deemed by the Graduate School Dean following discussion by the Graduate School Council to have achieved outstanding research performance shall be required to be enrolled in the Master's Program from a period of one (1) or more year.

2 In accordance with the preceding paragraph, in the case that it is deemed necessary to fulfill the aims of the Doctoral Program, passing the Master's Thesis Review and Final Examination may be substituted with passing the following examination and/or screening as conditions for completing the Master's Program.

(i) Examination testing highly specialized knowledge or skills in the student's field of specialization or foundational training in the relevant field of specialization that the student has, or should have, acquired through the relevant Master's Program.

(ii) Screening of skills that are necessary for the student to independently carry out research for their Doctoral Thesis and that the student should have acquired through the relevant Master's Program.

3 In order to complete a Graduate School Division Program, students are required to be enrolled in the Doctoral Program for three (3) or more years; acquire twenty-eight (28) or more credits from Specialized Subjects in their Major; submit a Doctoral Thesis after receiving the necessary Research Supervision; and pass the

Doctoral Thesis Review and Final Examination; provided, however, that with regard to the required period of enrollment, students deemed by the Graduate School Council to have achieved outstanding research performance shall be required to be enrolled in the Doctoral Program from a period of one (1) or more year (three (3) years for students who completed the Master's Program in a period of less than two (2) years, including the relevant enrollment period).

4 In order to complete the Graduate School Doctoral Program (Pharmacy), students are required to be enrolled in the Doctoral Program (Pharmacy) for four (4) or more years; acquire the credits listed below; submit a Doctoral Thesis after receiving the necessary Research Supervision; and pass the Doctoral Thesis Review and Final Examination; provided, however, that with regard to the required period of enrollment, students deemed by the Graduate School Council to have achieved outstanding research performance shall be required to be enrolled in the Doctoral Program from a period of three (3) or more years.

- (i) For the Pharmacy Course, thirty-two (32) or more credits in Specialized Subjects
- (ii) For the Oncology Pharmacist Training Course, thirty-five (35) or more credits in Specialized Subjects
- (iii) For the Supergeneralist Pharmacist Training Course, thirty-five (35) or more credits in Specialized Subjects

Article 25. In order to submit a Master's Thesis, students are required to have been enrolled in the Master's Program for a period of one (1) year or more, acquire ten (10) or more credits in Specialized Subjects or Related Subjects, and receive Research Supervision; provided, however, that in the case that the provisions of the proviso in Paragraph 1 of the preceding article are being applied, the student may submit their Master's Thesis after a period of enrollment of less than one (1) year with the approval of their Supervisor.

2 In order to submit a Doctoral Thesis prescribed in Paragraph 3 of the preceding article, students are required to have been enrolled in the Doctoral Program for a period of two (2) years or more, acquire eight (8) or more credits in Specialized Subjects, and receive Research Supervision; provided, however, that in the case that the provisions of the proviso in Paragraph 2 of the preceding article are being applied, the student may submit their Doctoral Thesis after a period of enrollment of less than two (2) years with the approval of their Supervisor.

3 In order to submit a Doctoral Thesis prescribed in Paragraph 4 of the preceding article, students are required to be enrolled in the Doctoral Program (Pharmacy) for a period of three (3) years or more, acquire the credits listed below; and receive the necessary Research Supervision; provided, however, that in the case that the provisions of the proviso in Paragraph 3 of the preceding article are being applied, the student may submit their Doctoral Thesis after a period of enrollment of less than three (3) years with the approval of their Supervisor.

- (i) For the Pharmacy Course, twelve (12) or more credits in Specialized Subjects
- (ii) For the Oncology Pharmacist Training Course, twenty-five (25) or more credits in Specialized Subjects

- (iii) For the Supergeneralist Pharmacist Training Course, twenty-five (25) or more credits in Specialized Subjects

4 Master's Theses and Doctoral Theses must be submitted to the Graduate School Dean by the stipulated deadline.

5 In the case that the provisions of the provisos in Paragraph 1, Paragraph 3, or Paragraph 4 of the preceding article are being applied, matters pertaining to the submission of Master's Theses and Doctoral Theses shall be in accordance with the provisions of the provisos in Paragraph 1, Paragraph 3, or Paragraph 4 of the preceding article, and also as prescribed by the Graduate School Dean following discussion by the Graduate School Council.

Article 26. Final Examinations will be conducted for Master's Program students who have acquired thirty (30) or more credits from Specialized Subjects and Related Subjects in their Major, received the necessary Research Supervision, and submitted a Master's Thesis; for Doctoral Program students who have acquired twenty-eight (28) or more credits from Specialized Subjects in their Major, received the necessary Research Supervision, and submitted a Doctoral Thesis; and for Doctoral Program (Pharmacy) students who have acquired the credits listed below, received the necessary Research Supervision, and submitted a Doctoral Thesis.

- (i) For the Pharmacy Course, thirty-two (32) or more credits in Specialized Subjects
- (ii) For the Oncology Pharmacist Training Course, thirty-five (35) or more credits in Specialized Subjects
- (iii) For the Supergeneralist Pharmacist Training Course, thirty-five (35) or more credits in Specialized Subjects

2 The Final Examination shall be on the student's reviewed Degree Thesis and Major related to the thesis (student's field of specialization).

Article 27. The evaluation categories for Degree Thesis and Final Examination results shall be Pass or Fail.

Article 28. Recognition of course completion shall be made by the Graduate School Dean following discussion by the Graduate School Council.

## Chapter 6. Non-degree Students

Article 29. In the case that a person requests permission to take a specific Graduate School subject, they may be granted permission to enroll as a Non-degree Student following screening.

Article 30. In order for a person to enroll in the Graduate School as a Non-degree Student, they must be a university graduate or be deemed to have scholastic ability equivalent to or higher than a university graduate.

Article 31. Non-degree Students shall enroll in the Graduate School at the start of the semester.

Article 32. Persons wishing to enroll in the Graduate School as a Non-degree Student must submit the required application form by the stipulated deadline.

Article 33. The maximum period of enrollment for Non-degree Students shall be one (1) semester, provided, however, that permission for this period to be extended may be granted by the Graduate School Dean following discussion by the Graduate School Council in the case that the Non-degree Student requests an

extension.

2 Non-degree Students may not be enrolled in the Graduate School for a period of more than two (2) years.

Article 34. The maximum subject credits that Non-degree Students may take in a semester shall as a general rule be limited to twelve (12) credits.

Article 35. In the case that a Non-degree Student requests certification for the subject(s) they have taken, the Graduate School Dean may issue a certificate.

#### Chapter 7. Special Auditing Students and Special Research Students

Article 36. In the case that a student in a relevant course at another Japanese graduate school, or overseas graduate school, or educational facility, etc., providing foreign graduate school courses in Japan requests to take a subject in the Graduate School, permission for the student to be accepted as a Special Auditing Student may be granted as determined following discussions with the relevant Japanese graduate school, or overseas graduate school, or educational facility, etc., providing foreign graduate school courses in Japan.

Article 37. In the case that a student in a relevant course at another Japanese graduate school, or overseas graduate school, or educational facility, etc., providing foreign graduate school courses in Japan requests to receive research supervision at the Graduate School, permission for the student to be accepted as a Special Research Student may be granted as determined following discussions with the relevant Japanese graduate school, or overseas graduate school, or educational facility, etc., providing foreign graduate school courses in Japan.

Article 38. Necessary matters pertaining to the acceptance of Special Auditing Students and Special Research Students shall be prescribed separately.

#### Supplementary Provisions

1. These regulations shall come into effect as of April 1, 2022.



# Rules for Taking Courses in Tohoku University Graduate School of Pharmaceutical Sciences

(Enacted November 16, 2005)

Latest revision: March 18, 2015

## (Purpose)

Article 1. The purpose of these rules is to prescribe the class subjects, number of credit units, and methods for taking courses for each major offered by Tohoku University Graduate School of Pharmaceutical Sciences (hereinafter referred to as the “Graduate School”) in accordance with the provisions prescribed in Article 7 Item 3 of Tohoku University Graduate School of Pharmaceutical Sciences Regulations) (enacted May 23, 1961; hereinafter referred to as the “Regulations”).

## (Class Subjects, Number of Credit Units, and Methods for Taking Courses)

Article 2. The class subjects, number of credit units, and methods for taking courses for each major offered by the Graduate School shall be in accordance with Appendix 1 for the Two-Year Master’s Course (hereinafter referred to as the “Master’s Course”); with Appendix 2 for the Three-Year Doctoral Course (hereinafter referred to as the “Doctoral Course”); Appendix 3 for the Doctoral Course (Pharmacy) (Pharmacy Program); Appendix 4 for the Doctoral Course (Pharmacy) (Oncology Pharmacist Training Program); and Appendix 5 for the Doctoral Course (Pharmacy) (Supergeneralist Pharmacist Training Program). The class subjects and number of credit units for the Ecosystem Adaption-based Education Program shall be in accordance with Appendix 6. Class subjects shown in Appendix 6 shall be recognized as subjected related to both the Doctoral Course and the Doctoral Course (Pharmacy).

## Supplementary Provisions

1. These rules shall enter into force on April 1, 2014.
2. With regard to the class subjects, number of credit units, and methods for taking courses for students enrolling in, advancing to, or transferring into the Graduate School prior to the 2013 academic year, provisions then in force shall remain applicable regardless of the provisions prescribed in the revised Article 2 and Appendixes 5 and 6.

## Supplementary Provisions (Revised March 18, 2015)

1. These rules shall enter into force on April 1, 2015.
2. With regard to the class subjects, number of credit units, and methods for taking courses for students

enrolling in, advancing to, or incorporating or transferring into the Graduate School prior to the 2014 academic year, provisions then in force shall remain applicable regardless of the provisions prescribed in the revised Article 2 and Appendixes 1 through 5.

Supplementary Provisions (Revised March 22, 2018)

1. These rules shall enter into force on April 1, 2018.
2. With regard to the class subjects, number of credit units, and methods for taking courses for students enrolling in, advancing to, or incorporating or transferring into the Graduate School prior to the 2017 academic year, provisions then in force shall remain applicable regardless of the provisions prescribed in the revised Article 2 and Appendixes 1 through 5.

Appendix 1 Master's Course

| Major                            | Specialized Subject                               |                  |          |          |               | Related Subjects  |
|----------------------------------|---|------------------|----------|----------|---------------|---|
|                                  | Subject   | Lecture          | Credits  |          |               |   |
|                                  |   | Other            | Required | Elective | Free elective |   |
| Molecular Pharmaceutical Science | Advanced Molecular Pharmaceutical Science I       | Lecture          | 4        |          |               | Subjects in the category offered in the majors included in the Interdepartmental Doctoral Degree Program for Multi-dimensional Materials Science Leaders (only those offered by instructors of other Graduate Schools) and subjects approved by the Educational Committee of the Graduate School of Pharmaceutical Sciences |
|                                  | Advanced Molecular Pharmaceutical Science II      | Same as above    | 4        |          |               |   |
|                                  | Advanced Organic Chemistry                        | Same as above    |          | 3        |               |   |
|                                  | Bio-pharmaceutical Sciences                       | Same as above    |          | 3        |               |   |
|                                  | Applied Bio-pharmaceutical Sciences               | Same as above    |          | 3        |               |   |
|                                  | Advanced Applied Biochemistry I                   | Same as above    |          | 3        |               |   |
|                                  | Advanced Applied Biochemistry II                  | Same as above    |          | 3        |               |   |
|                                  | Advanced Molecular and Structural Analysis        | Same as above    |          | 3        |               |   |
|                                  | Advanced Pharmacology                             | Same as above    |          | 3        |               |   |
|                                  | Advanced Biological Sciences                      | Same as above    |          | 3        |               |   |
|                                  | Advanced Medicinal Chemistry                      | Same as above    |          | 3        |               |   |
|                                  | Advanced Immunology                               | Same as above    |          | 3        |               |   |
|                                  | Advanced Organic Chemistry A                      | Same as above    |          | 2        |               |   |
|                                  | Advanced Organic Chemistry B                      | Same as above    |          | 2        |               |   |
|                                  | Advanced Molecular Imaging Pharmaceutical Science | Same as above    |          |          | 4             |   |
|                                  | Food & Agricultural Immunology Joint Lecture      | Same as above    |          | 2        |               |   |
|                                  | Special Lecture in Organic Chemistry              | Same as above    |          | 3        |               |   |
|                                  | Special Lecture in Clinical Pharmacy              | Same as above    |          | 3        |               |   |
|                                  | Seminar in Molecular Pharmaceutical Science I     | Exercise         | 3        |          |               |   |
|                                  | Seminar in Molecular Pharmaceutical Science II    | Same as above    | 3        |          |               |   |
|                                  | Subject-Research(Master's Thesis)                 | Experiment       | 10       |          |               |   |
| Overseas Internship              | On-site training                                  |                  |          | 2        |               |   |
|                                  | Total   |                  | 24       | 42       | 6             |   |
| Life and Pharmaceutical Science  | Advanced Life and Pharmaceutical Science I        | Lecture          | 4        |          |               | Subjects approved by the Educational Committee of the Graduate School of Pharmaceutical Sciences  |
|                                  | Advanced Life and Pharmaceutical Science II       | Same as above    | 4        |          |               |   |
|                                  | Advanced Organic Chemistry                        | Same as above    |          | 3        |               |   |
|                                  | Bio-pharmaceutical Sciences                       | Same as above    |          | 3        |               |   |
|                                  | Applied Bio-pharmaceutical Sciences               | Same as above    |          | 3        |               |   |
|                                  | Advanced Applied Biochemistry I                   | Same as above    |          | 3        |               |   |
|                                  | Advanced Applied Biochemistry II                  | Same as above    |          | 3        |               |   |
|                                  | Advanced Molecular and Structural Analysis        | Same as above    |          | 3        |               |   |
|                                  | Advanced Pharmacology                             | Same as above    |          | 3        |               |   |
|                                  | Advanced Biological Sciences                      | Same as above    |          | 3        |               |   |
|                                  | Advanced Medicinal Chemistry                      | Same as above    |          | 3        |               |   |
|                                  | Advanced Immunology                               | Same as above    |          | 3        |               |   |
|                                  | Advanced Molecular Imaging Pharmaceutical Science | Same as above    |          |          | 4             |   |
|                                  | Food & Agricultural Immunology Joint Lecture      | Same as above    |          | 2        |               |   |
|                                  | Special Lecture in Organic Chemistry              | Same as above    |          | 3        |               |   |
|                                  | Special Lecture in Clinical Pharmacy              | Same as above    |          | 3        |               |   |
|                                  | Seminar in Life and Pharmaceutical Science I      | Exercise         | 3        |          |               |   |
|                                  | Seminar in Life and Pharmaceutical Science II     | Same as above    | 3        |          |               |   |
|                                  | Subject-Research(Master's Thesis)                 | Experiment       | 10       |          |               |   |
|                                  | Overseas Internship                               | On-site training |          |          | 2             |   |
|                                  |   | Total            |          | 24       | 38            |   |

Remarks

Students are required to acquire 30 or more credits in total; 14 or more out of the lecture subjects (4 credits for each of advanced subjects I/II in his/her major and 6 or more credits for the elective subjects), 6 for the exercise subjects, and 10 for Subject-Research.

## Appendix 2 Doctoral Course

| Major  | Specialized Subject  |                  |          |          |               | Related Subjects  |
|--|--|------------------|----------|----------|---------------|---|
|  | Subject  | Lecture          | Credits  |          |               |   |
|  |  | Other            | Required | Elective | Free elective |   |
| Molecular Pharmaceutical Science             | Advanced Exercise in Medicinal Chemistry I                       | Exercise         |          | 4        |               | Subjects in the category offered in the majors included in the Interdepartmental Doctoral Degree Program for Multi-dimensional Materials Science Leaders (only those offered by instructors of other Graduate Schools) and subjects approved by the Educational Committee of the Graduate School of Pharmaceutical Sciences |
|  | Advanced Exercise in Medicinal Chemistry II                      | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Organometallic Chemistry I                  | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Organometallic Chemistry II                 | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Synthetic Chemistry I                       | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Synthetic Chemistry II                      | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Heterocyclic Chemistry I                    | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Heterocyclic Chemistry II                   | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Chemical Molecular Transformation I         | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Chemical Molecular Transformation II        | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Natural Products Chemistry I                | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Natural Products Chemistry II               | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Pharmaceutical Physicochemistry I           | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Pharmaceutical Physicochemistry II          | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Bio-Structural Chemistry I                  | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Bio-Structural Chemistry II                 | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Radiopharmaceutical Chemistry I             | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Radiopharmaceutical Chemistry II            | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Molecular Imaging Pharmaceutical Science I  | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Molecular Imaging Pharmaceutical Science II | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Molecular Pharmaceutical Science I          | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Molecular Pharmaceutical Science II         | Same as above    |          | 4        |               |   |
| Research in Molecular Pharmaceutical Science | Experiment   | 20               |          |          |               |   |
| Special Overseas Internship                  | On-site training   |                  |          | 2        |               |   |
| Total  |  | 20               | 88       | 2        |               |   |
| Life and Pharmaceutical Science              | Advanced Exercise in Pharmacology I                              | Exercise         |          | 4        |               | Subjects approved by the Educational Committee of the Graduate School of Pharmaceutical Sciences  |
|  | Advanced Exercise in Pharmacology II                             | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Bioanalytical Chemistry I                   | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Bioanalytical Chemistry II                  | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Molecular and Cellular Biochemistry I       | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Molecular and Cellular Biochemistry II      | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Membrane Transport and Drug Targeting I     | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Membrane Transport and Drug Targeting II    | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Health Chemistry I                          | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Health Chemistry II                         | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Molecular and Biochemical Toxicology I      | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Molecular and Biochemical Toxicology II     | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Gene Regulation I                           | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Gene Regulation II                          | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Molecular Genetics I                        | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Molecular Genetics II                       | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Life and Pharmaceutical Science I           | Same as above    |          | 4        |               |   |
|  | Advanced Exercise in Life and Pharmaceutical Science II          | Same as above    |          | 4        |               |   |
|  | Research in Life and Pharmaceutical Science                      | Experiment       | 20       |          |               |   |
|  | Special Overseas Internship                                      | On-site training |          |          | 2             |   |
| Total  |  | 20               | 72       | 2        |               |   |

## Remarks

Students are required to acquire 28 or more credits in total; 8 or more credits out of the exercise subjects in his/her major, Research in Molecular Pharmaceutical Science or Research in Life and Pharmaceutical Science, and 20 or more credits out of the experiment subjects.

Appendix 3 Doctoral Course (Pharmacy) <Pharmacy Program>

| Major   | Specialized Subject   |                  |          |          |               | Related Subjects   |
|---|---|------------------|----------|----------|---------------|--|
|   | Subject   | Lecture          | Credits  |          |               |  |
|   |   | Other            | Required | Elective | Free elective |  |
| Pharmacy  | Special Lecture in Pharmacy I   | Lecture          | 2        |          |               | Subjects approved by the Educational Committee of the Graduate School of Pharmaceutical Sciences |
|   | Special Lecture in Pharmacy II  | Same as above    | 2        |          |               |  |
|   | Advanced Exercise in Clinical Pharmacology I                          | Exercise         |          | 4        |               |  |
|   | Advanced Exercise in Clinical Pharmacology II                         | Same as above    |          | 4        |               |  |
|   | Advanced Exercise in Oncology Pharmaceutical Science I                | Same as above    |          | 4        |               |  |
|   | Advanced Exercise in Oncology Pharmaceutical Science II               | Same as above    |          | 4        |               |  |
|   | Advanced Exercise in Pharmacotherapy of life-style Related Disease I  | Same as above    |          | 4        |               |  |
|   | Advanced Exercise in Pharmacotherapy of life-style Related Disease II | Same as above    |          | 4        |               |  |
|   | Advanced Exercise in Applied Pharmaceutical Sciences I                | Same as above    |          | 4        |               |  |
|   | Advanced Exercise in Applied Pharmaceutical Sciences II               | Same as above    |          | 4        |               |  |
|   | Advanced Exercise in Drug Evaluation and Regulatory Science I         | Same as above    |          | 4        |               |  |
|   | Advanced Exercise in Drug Evaluation and Regulatory Science II        | Same as above    |          | 4        |               |  |
|   | Advanced Exercise in Pharmacy I                                       | Same as above    |          | 4        |               |  |
|   | Advanced Exercise in Pharmacy II                                      | Same as above    |          | 4        |               |  |
|   | Research in Pharmacy  | Experiment       | 20       |          |               |  |
|   | Special Overseas Internship   | On-site training |          |          | 2             |  |
|   | Total   |                  |          | 24       | 48            |  |
| Remarks   |   |                  |          |          |               |  |
| Students are required to acquire 32 or more credits in total; 4 credits of Special Lecture in Pharmacy I/II, 8 or more credits out of the exercise subjects in his/her major or Advanced Exercise in Pharmacy, and 20 or more credits out of the experiment subjects. |   |                  |          |          |               |  |

Appendix 4 Doctoral Course (Pharmacy) <Oncology Pharmacist Training Program>

| Major                       | Specialized Subject   |               |          |          |               | Related Subjects   |
|-----------------------------|---|---------------|----------|----------|---------------|--|
|                             | Subject   | Lecture       | Credits  |          |               |  |
|                             |   | Other         | Required | Elective | Free elective |  |
| Pharmacy                    | Special Lecture in Pharmacy I   | Lecture       | 2        |          |               | Subjects approved by the Educational Committee of the Graduate School of Pharmaceutical Sciences |
|                             | Special Lecture in Pharmacy II  | Same as above | 2        |          |               |  |
|                             | Advanced Clinical Oncology I  | Same as above | 2        |          |               |  |
|                             | Advanced Clinical Oncology II   | Same as above | 2        |          |               |  |
|                             | Advanced Clinical Oncology III  | Same as above |          |          | 4             |  |
|                             | Cancer Chemotherapy Discussion  | Exercise      | 4        |          |               |  |
|                             | Advanced Exercise in Clinical Pharmacology I                          | Same as above |          | 4        |               |  |
|                             | Advanced Exercise in Clinical Pharmacology II                         | Same as above |          | 4        |               |  |
|                             | Advanced Exercise in Oncology Pharmaceutical Science I                | Same as above |          | 4        |               |  |
|                             | Advanced Exercise in Oncology Pharmaceutical Science II               | Same as above |          | 4        |               |  |
|                             | Advanced Exercise in Pharmacotherapy of life-style Related Disease I  | Same as above |          | 4        |               |  |
|                             | Advanced Exercise in Pharmacotherapy of life-style Related Disease II | Same as above |          | 4        |               |  |
|                             | Advanced Exercise in Applied Pharmaceutical Sciences I                | Same as above |          | 4        |               |  |
|                             | Advanced Exercise in Applied Pharmaceutical Sciences II               | Same as above |          | 4        |               |  |
|                             | Advanced Exercise in Drug Evaluation and Regulatory Science I         | Same as above |          | 4        |               |  |
|                             | Advanced Exercise in Drug Evaluation and Regulatory Science II        | Same as above |          | 4        |               |  |
|                             | Advanced Exercise in Pharmacy I                                       | Same as above |          | 4        |               |  |
|                             | Advanced Exercise in Pharmacy II                                      | Same as above |          | 4        |               |  |
|                             | Training of Oncology Pharmacist                                       | Training      | 5        |          |               |  |
|                             | Research in Pharmaceutical Health Care and Sciences                   | Experiment    | 10       |          |               |  |
| Special Overseas Internship | On-site training  |               |          | 2        |               |  |
|                             | Total   |               | 27       | 48       | 6             |  |

Remarks

Students are required to acquire 35 or more credits in total; 4 credits of Special Lecture in Pharmacy I/II, 4 credits of Advanced Clinical Oncology, 4 credits of Cancer Chemotherapy Discussion, 8 or more credits out of the exercise subjects in his/her major or Advanced Exercise in Pharmacy, 5 credits of Training of Oncology Pharmacist, and 10 credits of Research in Pharmaceutical Health Care and Sciences.

Appendix 5 Doctoral Course (Pharmacy) <Supergeneralist Pharmacist Training Program>

| Major   | Specialized Subject   |                  |          |          | Related Subjects |  |
|---|---|------------------|----------|----------|------------------|--|
|   | Subject   | Lecture          | Credits  |          |                  |  |
|   |   | Other            | Required | Elective |                  | Free elective  |
| Pharmacy  | Special Lecture in Pharmacy I   | Lecture          | 2        |          |                  | Subjects approved by the Educational Committee of the Graduate School of Pharmaceutical Sciences |
|   | Special Lecture in Pharmacy II  | Same as above    | 2        |          |                  |  |
|   | Supergeneralist Pharmacist Training Seminar                           | Same as above    | 1        |          |                  |  |
|   | Advanced Clinical Oncology I  | Same as above    |          |          | 2                |  |
|   | Advanced Clinical Oncology II   | Same as above    |          |          | 2                |  |
|   | Advanced Clinical Oncology III  | Same as above    |          |          | 4                |  |
|   | Genome Analysis Discussion  | Exercise         | 2        |          |                  |  |
|   | Metabolome Analysis Discussion  | Same as above    | 2        |          |                  |  |
|   | Case Discussion   | Same as above    | 2        |          |                  |  |
|   | Advanced Exercise in Clinical Pharmacology I                          | Same as above    |          | 4        |                  |  |
|   | Advanced Exercise in Clinical Pharmacology II                         | Same as above    |          | 4        |                  |  |
|   | Advanced Exercise in Oncology Pharmaceutical Science I                | Same as above    |          | 4        |                  |  |
|   | Advanced Exercise in Oncology Pharmaceutical Science II               | Same as above    |          | 4        |                  |  |
|   | Advanced Exercise in Pharmacotherapy of life-style Related Disease I  | Same as above    |          | 4        |                  |  |
|   | Advanced Exercise in Pharmacotherapy of life-style Related Disease II | Same as above    |          | 4        |                  |  |
|   | Advanced Exercise in Applied Pharmaceutical Sciences I                | Same as above    |          | 4        |                  |  |
|   | Advanced Exercise in Applied Pharmaceutical Sciences II               | Same as above    |          | 4        |                  |  |
|   | Advanced Exercise in Drug Evaluation and Regulatory Science I         | Same as above    |          | 4        |                  |  |
|   | Advanced Exercise in Drug Evaluation and Regulatory Science II        | Same as above    |          | 4        |                  |  |
|   | Advanced Exercise in Pharmacy I                                       | Same as above    |          | 4        |                  |  |
|   | Advanced Exercise in Pharmacy II                                      | Same as above    |          | 4        |                  |  |
|   | Training of Genome Analysis I   | Training         | 2        |          |                  |  |
|   | Training of Genome Analysis II  | Same as above    |          | 2        |                  |  |
|   | Training of Metabolome Anasysis I                                     | Same as above    | 2        |          |                  |  |
|   | Training of Metabolome Anasysis II                                    | Same as above    |          | 2        |                  |  |
|   | Clinical Rotation I   | Same as above    | 2        |          |                  |  |
|   | Clinical Rotation II  | Same as above    |          | 2        |                  |  |
|   | Research in Pharmaceutical Health Care and Sciences                   | Experiment       | 10       |          |                  |  |
|   | Special Overseas Internship   | On-site training |          |          | 2                |  |
|   | Total   |                  |          | 27       | 54               |  |
| Remarks   |   |                  |          |          |                  |  |
| <p>Students are required to acquire 35 or more credits in total; 4 credits of Special Lecture in Pharmacy I/II, 1 credit of Supergeneralist Pharmacist Training Seminar, 2 credits of Practice in Genome Analysis Discussion, 2 credits of Metabolome Analysis Discussion, 2 credits of Case Discussion, 8 or more credits out of the exercise subjects in his/her major or Advanced Exercise in Pharmacy, 2 credits of Training of Genome Analysis I, 2 credits of Training of Metabolome Anasysis I, 2 credits of Clinical Rotation I, and 10 credits of Research in Pharmaceutical Health Care and Sciences.</p> |   |                  |          |          |                  |  |

# How to take subjects

## I. Master's Course (2 years)

1. Please note that students are required to acquire 10 or more credits out of the lecture subjects (specialized subjects and related subjects) by the end of the first semester in the 2nd year to submit a master's thesis.
2. Students are required to acquire 14 or more credits out of the lecture subjects (4 credits each of Special Lectures I and II in his/her major and 6 or more credits of the elective subjects) to complete the Master's Course.

Credits required for completion

|  |   |                               |
|--|---|-------------------------------|
| Lecture subjects: 14 or more credits   | } | A total of 30 or more credits |
| Practice subjects: 6 or more credits including the seminars in his/her major |   |                               |
| Experiment subjects: 10 credits of research training                         |   |                               |

3. The "CAMPUS Asia" Program is available in the Graduate School of Pharmaceutical Sciences.

In the Graduate School of Pharmaceutical Sciences, Advanced Organic Chemistry A and B are offered as a part of the "CAMPUS Asia" Program. Students acquire credits if they took the subjects and passed the periodic examinations. The subjects are the joint lectures for students in the Master's Course in the Graduate School of Pharmaceutical Sciences, the Graduate School of Science, the Graduate School of Engineering, the Graduate School of Agricultural Science, the Graduate School of Life Sciences and the Graduate School of Environmental Studies in Tohoku University, and instructors of the Graduate Schools teach cutting-edge knowledge in organic chemistry.

4. Precautions for taking lecture subjects

1. Advanced Immunology (3 credits)

If students took "Immunology and microbiology" offered in the Graduate School of Medicine (the schedule will be posted at a later date) and "Immunology and microbiology" offered in ISTU (Internet School) and acquired credits of both subjects, the credits substitute for those of Advanced Immunology.

2. Advanced Applied Biochemistry I and II (3 credits for each)

If students attended the "Biochemistry Joint Lecture" offered in April to July or in September to December in the Graduate School of Agricultural Science (the schedule will be posted at a later date), the credits substitute for those of "Advanced Applied Biochemistry I" or "Advanced Applied Biochemistry II," respectively.



3. Special Lecture in Organic Chemistry (3 credits) and Special Lecture in Clinical Pharmacy (3 credits)

The details will be provided in the admission orientation.

4. Food & Agricultural Immunology Joint Lecture (2 credits)

If students attend the “Joint Lecture in Food and Agricultural Immunology” offered in the Graduate School of Agricultural Science, the credits substitute for those of “Food & Agricultural Immunology Joint Lecture”. The details will be provided in the admission orientation.

## II. Doctoral Course (3 years)

1. Please note that students are required to acquire 8 or more credits out of the specialized subjects to submit a doctoral thesis.

2. Ecosystem Adaptability Science

The Ecosystem Adaptability Center aims to foster human resources with management ability and the advanced knowledge necessary for the implementation of various social activities relating to ecology and awards the title of Professional Ecosystem Manager (PEM), a qualification of ecosystem adaptability science. The Graduate School of Pharmaceutical Sciences offers the subjects for the acquisition of PEM.

## III. Doctoral Course (Pharmacy)

1. Please note that students are required to acquire the credits as follows:

- i. 12 or more credits out of the specialized subjects for the Pharmacy Program
- ii. 25 or more credits out of the specialized subjects for the Oncology Pharmacist Training Program
- iii. 25 or more credits out of the specialized subjects for the Supergeneralist Pharmacist Training Program

2. Oncology Pharmacist Training Program (Leading Oncology Pharmacist)

The program aims to foster leading researchers in pharmaceutical oncology headed for clinical practice and human resources who have advanced research capability and engage in the research and development of pharmaceutical products and medical devices or other work in collaboration with next-generation cancer researchers, clinicians, etc. Students determine a research subject relating to issues in the field and learn advanced research methods including genomic analysis, metabolomic analysis and proteomic analysis of patients. Students also take on-site training to learn practical skills for supporting oncology medication.

Students are required to take Special Lecture in Pharmacy I/II (4 credits), Advanced Clinical Oncology I/II (4 credits), Cancer Chemotherapy Discussion (4 credits), Training of Oncology Pharmacist (5 credits) and Research in Pharmaceutical Health Care and Sciences (10 credits). Advanced Clinical Oncology I/II offered in the Graduate School of Medicine substitute for Advanced Clinical Oncology I/II. It is preferable to take Advanced Clinical Oncology III (Advanced Clinical Oncology III offered in the Graduate School of

Medicine). Please contact appropriate instructors for the details of Cancer Chemotherapy Discussion and Training of Oncology Pharmacist.

### 3. Supergeneralist Pharmacist Training Program

The program aims to foster human resources who have highly-advanced pharmaceutical analytical ability and clinical problem-solving ability, proactively engage in multi-departmental medication as pharmaceutical specialists in team medical care and promote high-quality, safe and secure medical care. Students learn the skills of genomic analysis, metabolomic analysis and pathological analysis.

Students are required to take Special Lecture in Pharmacy I/II (4 credits), Supergeneralist Pharmacist Training Seminar (1 credit), Genome Analysis Discussion (2 credits), Metabolome Analysis Discussion (2 credits), Case Discussion (2 credits), Training of Genome Analysis I (2 credits), Training of Metabolome Analysis I (2 credits), Clinical Rotation I (2 credits), and Research in Pharmaceutical Health Care and Sciences (10 credits). Please contact appropriate instructors for the details of the Supergeneralist Pharmacist Training Seminar.

## IV. “Overseas Internship (MC)” and “Special Overseas Internship (DC)”

If students of the Graduate School of Pharmaceutical Sciences study abroad and are certified to have achieved a certain learning outcome, those in the Master’s Course (2 years) acquire “Overseas Internship (2 credits, optional subject)” and those in the Doctoral Course (3 years) and the Doctoral Course (Pharmacy) acquire “Special Overseas Internship (2 credits, optional subject).” Please contact the Academic Affairs Section (Kyomu).

Rules for the Handling of Selection of Students to Advance or Transfer to the Three-Year  
Doctoral Course in Tohoku University Graduate School of Pharmaceutical Sciences

(Enacted January 20, 1999)

Latest revision: April 16, 2008

(General Provisions)

Article 1. Handling of selection of students to advance or transfer to the Three-Year Doctoral Course (hereinafter referred to as “Doctoral Course”) in Tohoku University Graduate School of Pharmaceutical Sciences shall be in accordance with these rules for handling in addition to matters prescribed in the provisions of related regulations.

(Method for Selecting Students to Advance to the Doctoral Course)

Article 2. Students who have completed the Master’s Course in Tohoku University Graduate School of Pharmaceutical Sciences and wish to advance to the Doctoral Course must obtain the approval of their supervisor and submit an application to the Graduate School of Pharmaceutical Sciences by the prescribed deadline.

Article 3. Selection of applicants to advance to the Doctoral Course shall be based comprehensively on the applicants’ academic performance, research accomplishments, research aptitude, Master’s thesis assessment, and final examination results in the Two-Year Master’s Course (hereinafter referred to as the “Master’s Course”).

Article 4. Selection using the process described in the previous article shall decide successful applicants based comprehensively on the applicants’ academic performance, Master’s thesis assessment, and final examination results in the Master’s Course.

(Method for Selecting Students to Transfer to the Doctoral Course)

Article 5. Selection of students who have applied to transfer to the Doctoral Course shall be based comprehensively on the applicant’s research publications, scholastic ability test results, and interview examination results.

2 Scholastic ability test subjects and testing methods shall be prescribed separately by the Graduate School of Pharmaceutical Sciences Committee.

(Miscellaneous Provisions)

Article 6. In addition to the matters prescribed by these rules, any necessary matters pertaining to the selection of students to advance or transfer to the Doctoral Course shall be decided by the Graduate School of Pharmaceutical Sciences Committee.

Supplementary Provision

These rules shall enter into force on April 1, 2008.

Rules for the Handling of Master's Course, Doctoral Course,  
and Doctoral Course (Pharmacy) Thesis Reviews in Tohoku University Graduate  
School of Pharmaceutical Sciences

(Enacted April 1, 1962)

Latest revision: December 21, 2011

(General Provisions)

Article 1. Handling of thesis reviews for students in Tohoku University Graduate School of Pharmaceutical Sciences Two-Year Master's Course (hereinafter referred to as "Master's Course"), Three-Year Doctoral Course (hereinafter referred to as "Doctoral Course"), or Doctoral Course (Pharmacy) shall be in accordance with these rules for handling in addition to matters prescribed in the provisions of related regulations.

Article 2. Students who successfully complete the Master's Course shall be awarded a Master of Pharmaceutical Sciences degree. Students who successfully complete the Doctoral Course shall be awarded a Doctor of Pharmaceutical Sciences degree. Students who successfully complete the Doctoral Course (Pharmacy) shall be awarded a Doctor of Pharmacy degree.

(Deadline for Submission of Thesis)

Article 3. Master's Course students must submit their master's thesis to the Dean of the Graduate School of Pharmaceutical Sciences through their supervisor by the prescribed deadline. If the thesis is submitted after the deadline, it will not be reviewed within that academic year.

2 Except in cases where the Graduate School of Pharmaceutical Sciences Committee makes special exemptions, Doctoral Course students and Doctoral Course (Pharmacy) students who intend to complete their course in either March or September must submit their doctoral thesis to the Dean of the Graduate School of Pharmaceutical Sciences through their supervisor by the respective prescribed deadline. If the thesis is submitted after the deadline, it will not be reviewed within that semester.

(Thesis Reviewers)

Article 4. Thesis reviewers shall comprise 2 or more faculty members, including the student's supervisor, selected by the Graduate School of Pharmaceutical Sciences Committee.

2 The reviewers mention in the preceding paragraph may, when necessary, include associate professors and/or senior assistant professors in the Graduate School of Pharmaceutical Sciences and/or faculty members in other Graduate Schools in Tohoku University.

(Thesis Reviews)

Article 5. When a thesis is undergoing review, reviewers must complete their reviews by 1 week prior to the final examination.

(Final Examination)

Article 6. The final examination shall be conducted after the thesis review has been completed and focus on the student's thesis, comprising an oral overview of the thesis by the student followed by an oral examination of subjects related to the thesis content.

2 The schedule for the final examination shall be decided on a case-by-case basis by the Graduate School of Pharmaceutical Sciences Committee.

(Results Report and Vote)

Article 7. After the thesis review has been completed, the reviewers must promptly report the review results to the Graduate School of Pharmaceutical Sciences Committee.

2 A vote regarding conferment of the relevant degree on the student shall be conducted after the final examination by the Graduate School of Pharmaceutical Sciences Committee.

Article 8. For Master's Course students who were scheduled to complete the course in March of the relevant academic year but were unable to do so, and students who submitted their thesis after the submission deadline, additional thesis reviews and examinations may be conducted when deemed especially necessary by the Graduate School of Pharmaceutical Sciences Committee.

2 Additional thesis reviews and examinations shall be conducted in accordance with the provisions prescribed in Article 4 and Article 5, respectively.

(Miscellaneous Provisions)

Article 9. In addition to the matters prescribed by these rules, any necessary matters pertaining to the handling of thesis reviews shall be decided by the Graduate School of Pharmaceutical Sciences Committee.

Supplementary Provision

1. These rules shall enter into force on April 1, 2012.
2. With regard to thesis reviews for students entering the Graduate School prior to the 2011 academic year, provisions then in force shall remain applicable regardless of the provisions prescribed in the revised rules.

# Student Guide

In undertaking their studies at Tohoku University, students are to read all Faculty of Pharmaceutical Sciences regulations, Graduate School of Pharmaceutical Sciences regulations, and any other relevant regulations.

The following matters pertain to items prescribed in part or otherwise in relevant regulations with which students must comply.

## **§1. Student Card and Student ID Number**

- Students shall always carry their student card on their person and show the card to Tohoku University faculty members or other persons when requested to do so. In addition, because student cards also function as ID cards, students must show their student card when using the university library or the automatic certificate issuing machine.
- If a student should lose their student card, they must request the Educational Affairs of Faculty of Pharmaceutical Sciences to reissue the card by submitting a Request for Student Card Reissuance (Forms are available from the Educational Affairs of Faculty of Pharmaceutical Sciences.) with a color photograph (face and shoulders with head bare; 4 cm high x 3 cm wide) attached. If the lost student card should be found after the new card has been issued, the former should be returned immediately to the Educational Affairs of Faculty of Pharmaceutical Sciences.
- Student cards may not be used by anyone other than the person to whom they belong.
- If a student should lose their enrollment status due to graduation, completion of a postgraduate degree, withdrawal from the university, or expulsion, they shall return their student card to the Educational Affairs of Faculty of Pharmaceutical Sciences immediately.
- Student ID numbers are decided at the time of the student's enrollment and do not change while the student is enrolled at Tohoku University.

## **§2. Taking Class Subjects**

- In selecting class subjects, students are to thoroughly consider the class schedule and other factors, referring to the appendixes provided in the Regulations for Taking Courses in the Faculty of Pharmaceutical Sciences and the Regulations for Taking Courses in the Graduate School of Pharmaceutical Sciences before deciding on which subjects to take.
- Procedures for taking the selected class subjects comprise completing online course registration. Please note that, as a general rule, registration items cannot be changed outside the course registration period, and so students should check their registration items within the stipulated periods and, if modifications are required, carry out the necessary procedure at the Educational Affairs of Faculty of Pharmaceutical Sciences within the stipulated period.

- With regard to subjects for which a student has already attained credit, it is not possible for the student to retake the subject, even if the instructor or course content differs.

### **§3. Examinations**

- Students cannot take examinations for class subjects for which they have not undertaken the prescribed registration procedures.
- When an examinations are being conducted, examinees are permitted to enter the examination room up to 30 minutes after the examination has begun, but students should allow ample time for not late for examinations.
- In taking examinations, as a general rule students may not use any instruments other than pencils, erasers, and watches (excluding watches with functions other than telling the time). With regard to examinations that do permit usage of instruments other than those listed above, notification will be given to students prior to the examination in question.
- In the case that a student is unable to take an examination for an unavoidable reason, it is possible for the student to take a make-up examination. When requesting permission to sit a make-up examination, the request must be submitted to the Educational Affairs of Faculty of Pharmaceutical Sciences on the prescribed form and in accordance with university regulations. Please note that, depending on the reason the student was unable to take the examination, the Faculty Council may determine that a make-up examination should not be administered. If a student is unable to determine for themselves whether or not their reason for requesting a make-up examination is valid they should contact the Educational Affairs of Faculty of Pharmaceutical Sciences.
- In the case that a student questions their examination results, they may request an explanation from their class instructor within a period of 2 weeks from the date on which examination results are announced. However, if the student does not approach their instructor within the prescribed period but has a valid reason for not doing so, they may request an explanation for their class instructor even after the prescribed period has ended, within a period of 1 year.  
Furthermore, if the student objects to the explanation provided by their class instructor, they may submit a formal objection. Students should check with the Educational Affairs of Faculty of Pharmaceutical Sciences with regard to procedures for submitting a formal objection.

### **§4. Practical Training**

- In their 4<sup>th</sup> and 5<sup>th</sup> semesters, students undergo practical training conducted as part of core education subjects.
- From their 6<sup>th</sup> semester onwards, students undergo practical training as part of expansive education subjects in the Department of Pharmaceutical Sciences or practical training as part of developmental education subjects in the Department of Pharmacy.



- In laboratories, students will frequently handle sensitive apparatus and dangerous chemicals, so they should use these with extreme care, following the instructions of their class instructors precisely in order to prevent accidents from occurring.
- In the unlikely event that an accident does occur, students are to follow the instructions of their class instructor. Please note that, if a student receives treatment at a university hospital for injuries sustained in a disaster occurring during practical training, they are eligible to receive a Research Disaster Medical Certificate, which enables them to receive treatment free of charge. Such students should notify the Educational Affairs of Faculty of Pharmaceutical Sciences of their situation.

### **§5. Research Training**

- Research Training —practical research on assigned themes—are undertaken by Department of Pharmaceutical Sciences students in their 7<sup>th</sup> and 8<sup>th</sup> semesters, and by Department of Pharmacy students in their 10<sup>th</sup> through 12<sup>th</sup> semesters.

### **§6. Leaves of Absence, Reinstatement, Withdrawal**

- If a student wishes to take a leave of absence, from, be reinstated into, or withdraw from the university, they are to obtain the prescribed forms listed below from the Educational Affairs of Faculty of Pharmaceutical Sciences and, following an interview with their supervisor (faculty member in charge of the relevant university year), submit the prescribed forms to the Educational Affairs of Faculty of Pharmaceutical Sciences and obtain the permission of the Faculty Dean or Graduate School Dean.

- |   |   |
|---|---|
| 1) To request a leave of absence:   | “Request for Leave of Absence”<br>“Findings Regarding Request for Leave of Absence, Etc.” |
| 2) To request withdrawal:   | “Request for Withdrawal”<br>“Findings Regarding Request for Leave of Absence, Etc.”       |
| 3) To request reinstatement during<br>the period of the leave of absence:   | “Request for Reinstatement”<br>“Findings Regarding Request for Leave of Absence, Etc.”    |
| 4) To request reinstatement after the<br>conclusion of the leave of absence | “Notification of Reinstatement”   |

- In the case that the leave of absence is for a period of 3 consecutive months or longer, this period will not be included in the student’s period of enrollment and the timing of the student’s graduation (completion of postgraduate degree) shall be extended.
- Students who wish to take a leave of absence from April 1 are to complete procedures by the end of February. If the necessary procedures are not carried out by the prescribed deadline, the student will be obligated to pay tuition fees for the next academic year, so be sure to meet the deadline.

- Students who wish to withdraw at the end of March are to complete procedures by the end of February. If the necessary procedures are not carried out by the prescribed deadline, the student will be obligated to pay tuition fees for the next academic year, so be sure to meet the deadline.

#### **§7. Notification of Changes to Personal Information**

- Students must always keep the university informed of their current address and other personal information to enable contact in emergency situations, etc., and so notification of any changes to personal information is to be submitted to the Educational Affairs of Faculty of Pharmaceutical Sciences each time a change is made.

#### **§8. Use of Maiden Name or Nickname**

- If a student wishes to use their maiden name or nickname (hereinafter referred to as “Maiden name, etc.”), the university shall allow use of the maiden name, etc., on the condition that the student in question takes responsibility for explaining the difference between the maiden name, etc., and the student’s name as shown in their family register. Please note that the main reasons for granting a student permission to use their maiden name, etc., are to enable them to maintain continuity of their name as a researcher or to use a new form of an old (or vulgar) Chinese character.
- If a student wishes to use their maiden name, etc., they must obtain the permission of the faculty member in charge of their university year or their supervisor and then carry out procedures using the prescribed forms (available from the Educational Affairs of Faculty of Pharmaceutical Sciences).
- In the case that permission is granted for a student to use their maiden name, etc., as a general rule, the name that shall appear in the student register and on the student’s student card, graduation certificate, and all identification documents shall be the approved maiden name, etc.
- If a students who is using their maiden name, etc., wishes to cease using that name, they must obtain the permission of the faculty member in charge of their university year or their supervisor and then carry out procedures using the prescribed forms (available from the Educational Affairs of Faculty of Pharmaceutical Sciences).

#### **§9. Health Checkups**

- Students are to undergo regular health checkups once a year.
- If a student should miss a regular health checkup without a valid reason, they may not be issued with a medical certificate for finding employment (continuing education), so be careful.

#### **§10. Tuition Fees, Enrollment Fee**

##### **Tuition Fees**

- Tuition fees are to be paid using a payment agency system whereby payment is debited automatically from the student's specified bank account. Accordingly, students are to open a bank account and carry out payment agency procedures using the payment agency procedure documents that were distributed with enrolment procedure documents. (These procedures enable automatic debit of tuition fees from the 1<sup>st</sup> semester of the student's first year.)
- Payment deadlines:     1<sup>st</sup> semester tuition fees – 30 April  
                                  2<sup>nd</sup> semester tuition fees – 31 October

Note: Direct debit will be carried out on or around the 24<sup>th</sup> of the payment month, so students should check to ensure that they have sufficient funds in their accounts.

Direct debit of 1<sup>st</sup> semester tuition fees for newly enrolled students will be carried out in June.

- If tuition fees are not paid by the prescribed deadline, the nonpayment will be posted on noticeboards and the student in question and their parents/guardian shall be issued a written demand for payment. After demand for payment has been received, if payment is not made after a considerable length of time or at all, the student in question may be expelled, so please be careful.
- If a student is experiencing difficulty making payment before the prescribed deadline, they may request permission to pay the tuition fees in monthly installments or postpone payment. For detailed information about making such a request, please ask the Educational Affairs of Faculty of Pharmaceutical Sciences.
- If a student is experiencing difficulty paying tuition fees due to financial reasons and their academic performance is outstanding, they may request permission for exemption from paying tuition fees.

Detailed information regarding requests for exemption from paying tuition fees is provided separately.

### **Enrollment Fee**

- Students enrolling in the Graduate School are to pay the enrollment fee to the bursar by the prescribed deadline.
- If a student is experiencing difficulty paying the enrollment fee due to financial reasons and their academic performance is outstanding, they may request permission for exemption from or postponement of paying the enrollment fee.

Detailed information regarding requests for exemption from or postponement of paying the enrollment fee is provided separately.

## **§11. Scholarship System**

### **Japan Student Services Organization (JASSO) Scholarships**

Under this scholarship system, funds to pay educational expenses are lent to students with outstanding academic performance and experiencing difficulty paying their educational expenses.

Two types of scholarships are available: non-interest-paying scholarships (Type 1 Scholarships) and

interest-paying scholarships (Type 2 Scholarships). Information regarding scholarship applications is posted on notice boards, so please pay careful attention.

#### **Japan Society for the Promotion of Science (JSPS) Research Fellowship for Young Scientists**

Under this system, the Japan Society for the Promotion of Science (JSPS) provides support for “Young Research Fellows”. Researchers who have completed their doctoral degree or are currently enrolled in a doctoral degree program are eligible to apply. Each year around three students in the Graduate School of Pharmaceutical Sciences are accepted for this program. (Contact: General Affairs Section)

#### **Scholarships provided by local public entities and private scholarship organizations**

In addition to the Japan Student Services Organization (JASSO), educational funding (scholarships) are available from local public educational societies, private companies, foundations, and other organizations. Information on applying for such scholarships is posted in noticeboards whenever recruitments are taking place.

- If a scholarship student takes a leave of absence or their situation changes in any other way, they must report this to the Educational Affairs of Faculty of Pharmaceutical Sciences.

#### **§12. Tohoku University Division for Interdisciplinary Advanced Research and Education**

- For students in their first year of the two-year master’s degree course, there is a scholarship system available whereby selected students become “Master’s Degree Research Education Graduate Students”, studying specified subjects in their first year and receiving scholarship payments in their second year as well as a range of financial support including payment of paper publication fees and expenses for attending academic society meetings and international conferences. Furthermore, for students selected as “Master’s Degree Research Education Graduate Students” and other students in the first year of the three-year doctoral degree who have shown especially outstanding academic performance, there is a scholarship system available whereby selected students become “Doctoral Degree Research Education Graduate Students”, receiving scholarship payments and a range of financial support including payment of paper publication fees and expenses for attending academic society meetings and international conferences, as well as assistance with research expenses commensurate with the student’s research plan, their research environment, and/or international internships.

For detailed information, please see the Tohoku University Division for Interdisciplinary Advanced Research and Education page on the Tohoku University website.

#### **§13. Student Discount Coupons for Japan Railway Company Group, Transportation Bureau City of Sendai, or Miyagi Transportation Co. Ltd. (Student Traveler Fare Discount Coupons, Gaku-wari) and Student Commuter Pass Certificate**

## Gaku-wari

- The Gaku-wari can be issued current students via the automated certificate-issuing machines (required items: Student ID Card)
- Locations of automated certificate-issuing machines (Your student ID cards can be used with all machines)

| District               | Location  | Operating Hours   | Contact   |
|------------------------|---|---|---|
| Kawauchi -kita Campus  | Education and Student Support Center, 1F (2 machines)                             | Monday – Friday<br>8:30 – 21:00                                       | Economic Support Section,<br>Student Support Division<br>University-wide Education<br>Implementation Section,<br>Education Affairs Division |
| Kawauchi-minami Campus | Multidisciplinary Research Building (International Humanities) Common Space       | Monday – Friday<br>8:30 – 19:00                                       | Faculty of Education/Graduate School of Education Affairs Section   |
| Aobayama-kita Campus   | In front of the Faculty of Science/Graduate School of Science Registrar's Counter | Monday – Friday<br>8:30 – 21:00                                       | Faculty of Science/Graduate School of Science Student Support Section   |
| Aobayama-minami Campus | School of Engineering CENTER HALL, 1F (2 machines)                                | Monday – Friday<br>8:30 – 20:00<br>Saturday and Sunday<br>10:00~14:00 | Faculty of Engineering/Graduate School of Engineering Student Support Section   |
| Aobayama New Campus    | Multidisciplinary Research Laboratory for Agricultural Science 1F Entrance Hall   | Monday – Friday<br>8:30 – 18:00                                       | Faculty of Agriculture/Graduate School of Agricultural Science Educational Affairs Section  |
| Seiryō Campus          | Seiryō Hall, 1F Entrance Hall   | Monday – Saturday<br>8:30 – 21:00                                     | School of Medicine Educational Affairs Division   |
| Katahira Campus        | Extended Education & Research Building, 1F Entrance Hall                          | Monday – Friday<br>8:30 – 17:00                                       | School of Law Professional Graduate School Section  |

- A maximum of 2 certificates may be issued at a time (up to 20 certificates per year; students who require more than 20 certificates in a year should apply to the Educational Affairs of Faculty of Pharmaceutical Sciences).
- At times when the automated certificate-issuing machines cannot be used (notification will be posted on noticeboards when this occurs), first and second year undergraduate students should apply for certificates up to 2 days before the certificates are required at Window (iii) in the Kawauchi-kita Campus Administration Building. (Third year undergraduate students and above should apply to the Educational Affairs of Faculty of Pharmaceutical Sciences.)

## Student Commuter Pass Certificate (Tsu-gaku sho-mei-sho)

- To purchase a student commuter pass from Japan railway Company Group (JR), Transportation Bureau

City of Sendai, and Miyagi Transportation Co. Ltd. (Miyagi Ko-tsu) for the first time in the academic year, students need student commuter pass certificates. For JR and Miyagi Transportation Co. Ltd., a student commuter pass certificate is not necessary when a student re-purchases a student commuter pass for same commuting route within an academic year. Then student must exchange the old pass and a new pass at the time of purchase. When purchasing a student commuter pass for periods that span two academic years (excluding periods that end on April 30), student commuter pass certificates are required. For Transportation Bureau City of Sendai, once a student has purchased a student computer pass, regardless of whether or not the period spans two academic years, a student commuter pass certificate is not required for purchasing a new commuter pass, but a student commuter pass certificate is required when purchasing a student commuter pass for the first time in a new academic year.

1) First and second year undergraduate students

Apply for student commuter pass certificates at Window (iii) in the Kawauchi-kita Campus Administration Building.

2) Third year undergraduate students and above should apply to the Educational Affairs of Faculty of Pharmaceutical Sciences for a student commuter pass certificates.

#### **§14. Issuance of Certificates**

- As with Gaku-wari, Certificates of Enrollment (Japanese/English), Certificates of Prospective Graduation/Completion (Japanese/English), Transcript of Academic Record (Japanese/English), and Medical Examination Certificate can be issued to current students via the automated certificate-issuing machines. For Certificates of Enrollment (Japanese/English), Certificates of Prospective Graduation/Completion (Japanese/English), and Transcript of Academic Record (Japanese/English), five 5 copies may be issued at one time. For Medical Examination Certificate, 1 copy may be issued at one time.
- In the event that Transcript of Academic Record or Graduation/Completion Certificates for previous academic years are required, students should write their requirements in the Application for Issuance of Certificates in the Educational Affairs of Faculty of Pharmaceutical Sciences. These certificates will be issued in the afternoon of the following day.

#### **§15. Noticeboards**

- All information related to lectures, tuition fees, and other matters that the university or faculty (graduate school) needs to convey to students shall be posted on student noticeboards.
- Students should check noticeboards carefully on their way in and out of the university, ensuring that they do not overlook or misread any notices.
- Students for whom a summons has been posted should report to the relevant office or faculty promptly.

## **§16. Student Counselling**

### **Harassment**

All students and faculty members are guaranteed free and equal relations, and the personalities of individuals must be respected. Accordingly, harassment behavior such as making a person feel uncomfortable by using inappropriate language despite their protestations or disadvantaging or causing injury to a person shall not be tolerated for any reason.

Tohoku University aims to be a university where all students and faculty members are respected as individuals and are able to focus on their studies, extracurricular activities, research, and work duties with peace of mind within a healthy and comfortable environment that is free of harassment, enjoying a fulfilling campus life.

### **What is Sexual Harassment?**

Sexual harassment constitutes actions that violate another person's human rights through the use of sexual language that makes the other person feel uncomfortable (actions that violate the human rights of any other person, be they faculty members or students at Tohoku University or at another university, etc.).

### **What is Academic Harassment?**

Academic harassment constitutes actions that violate another person's human rights through the inappropriate language utilizing the perpetrator's position of superiority in education or research over the other person.

### **What to do if you are subjected to harassment**

If you are made to feel uncomfortable due to harassing behavior, or if a person will not stop behavior that makes you uncomfortable even though you have asked them to stop, it is important that you immediately consult a third party who you trust. When you are subjected to harassing behavior, make a record of the situation and do not delay in contacting one of the counselling offices listed below.

### **Student Counseling Offices**

In order to counteract harassment within the university, Tohoku University has established the following counselling offices. Details of matters discussed in counselling sessions will be kept in the strictest confidence, so please seek counselling as quickly as possible if you should be subjected to harassment.

- University Counselling Center Student Counseling/Special Support Center (next to the Student Health Care Center) TEL: +81-22-795-7833
- Faculty of Pharmaceutical Sciences Graduate School of Pharmaceutical Sciences Counseling Office  
Professor Noriyasu Hirasawa TEL: +81-22-795-6809  
Associate Professor Mieko Arisawa TEL: +81-22-795-6814

### **Other Counseling Services**

- If a student requires special knowledge or advice regarding a matter affecting their everyday living or any other matter, they should consult their class instructor or the Educational Affairs of Faculty of Pharmaceutical Sciences. Students should not hesitate to seek counseling as every effort will be made to provide assistance as far as possible. In addition, faculty members' e-mail addresses are listed in the Graduate School of Pharmaceutical Sciences Faculty Register (p.165), and counseling can also be provided via e-mail.

- Tohoku University has the following student counseling facilities, so please utilize these services.

Location: Kawauchi-kita Campus Student Counseling/Special Support Center (TEL: +81-22-795-7833)

Opening hours: 9:30 – 17:00 Monday – Friday (closed on Saturdays, Sundays, public holidays, and Year End/New Year Holidays)

### **Part-time Employment**

- Students seeking referrals for part-time employment should contact the Career Support Center Employment Section (3F Education and Student Support Center on the Kawauchi-kita Campus). Students are also advised to utilize the Tohoku University Part-time Employment Introduction System.

#### **Inquiries**

- Kawauchi-kita Campus Career Support Center Employment Section

TEL: +81-22-795-7770 E-mail : support@grp.tohoku.ac.jp

- Tohoku University Part-time Employment Introduction System URL <http://www.aines.net/tohoku/>

\*The system can be accessed via a link on the Career Support Center website.

### **§17. Use of University Facilities, Etc.**

- If students wish to use a lecturer hall, they are to inform the Educational Affairs of Faculty of Pharmaceutical Sciences and carry out the necessary procedures by the day before they wish to use the lecture hall. Students who receive permission to use a lecture hall should take careful note of the following items.

1. In the event that the building or any equipment is damaged or lost, those using the facility shall reimburse the university in full.

2. After using the lecture hall, students should ensure that they tidy the hall, putting chairs, desks, and other equipment, etc., back in its original place, and shut/lock the windows and doors, being especially careful of flames.

### **§18. Student Meetings and Posting of Student Notices**

- With regard to approval for students to hold meetings or post notices within the Graduate School of Pharmaceutical Sciences/Faculty of Pharmaceutical Sciences, students should pay careful attention to the



following points in addition to the “Rules Regarding Student Organizations, Meetings, Posting of Notices, and Distribution of Printed Materials”.

### **Meetings**

- 1) When holding a student meeting, the person in charge of organizing the meeting must notify and obtain the permission of the Dean of Faculty/Graduate School of Pharmaceutical Sciences, Tohoku University through the Educational Affairs of Faculty of Pharmaceutical Sciences by 3 days prior to the date of the meeting.
- 2) When using a lecture hall as a venue for a meeting, students must be especially careful to comply fully with the following items.
  - After using the lecture hall, students should ensure that they tidy the hall, putting chairs, desks, and other equipment, etc., back in its original place, and shut the windows and doors, being especially careful of flames.
  - Students should thoroughly check the hall after tidying it, and then immediately report to the Educational Affairs of Faculty of Pharmaceutical Sciences that the lecture hall has been put back in its original state.

### **Posting of Notices**

- 1) Notices should be posted on the prescribed notice boards.
- 2) When posting notices, students must notify and obtain the permission of the Dean of Faculty/Graduate School of Pharmaceutical Sciences, Tohoku University through the Educational Affairs of Faculty of Pharmaceutical Sciences.
- 3) Notices that do not have stamps showing that they have been approved shall be removed.

## **§19. National Examination for Pharmacists**

As stated in Article 1 of the Pharmacists Act, “A pharmacist is to contribute to the improvement and promotion of public health by administering the dispensing of medicine, supply of medicine and other pharmaceutical health and sanitation services, thereby ensuring the healthy living of citizens.” Accordingly, the actual work of pharmacists covers an extremely broad spectrum. In order to become a pharmacist, it is necessary to pass the National Examination for Pharmacists, which tests examinees on the minimum knowledge required to be a pharmacist, and obtain a license from the Minister of Health, Labour and Welfare.

The National Examination for Pharmacists is conducted once a year, in spring, and details about implementation of the examination are made public through official gazettes (Kan-po). For information regarding applications to sit for the examination, pay attention to notices posted by the Educational Affairs of Faculty of Pharmaceutical Sciences.

### **Applying for a Pharmacist License.**

Those who pass the National Examination for Pharmacists receive an examination passing certificate, but this does not mean that they have been granted a pharmacist license. Those who wish to obtain a pharmacist license must complete the required application documents and submit their application to the Minister of Health, Labour and Welfare through the governor of the prefecture in which they reside.

## §20. Finding Employment

- Guidance and introductions for students seeking employment after graduation are provided by the Employment Committee and the Educational Affairs of Faculty of Pharmaceutical Sciences. Company brochures and information about job openings is available from the Educational Affairs of Faculty of Pharmaceutical Sciences, and so interested students should contact the Educational Affairs of Faculty of Pharmaceutical Sciences.

## §21. Contact after Graduation (Completion)

- If a student changes their name after graduation (completion), they should notify the university of the name change, attaching a copy of their family register for verification.
- If a student should require a certificate after graduation (completion), they should submit a request for the university to issue the required certificate, providing an explanation of to whom it is to be submitted and for what purpose. If the certificate is to be posted to the student, a stamped self-addressed return envelope should be included with the request.

## §22. Personal Accident Insurance for Student Pursuing Education and Research (*Gakkensai*)

- The Personal Accident Insurance for Student Pursuing Education and Research (*Gakkensai*) is an insurance system that provides relief measures in the event that a student sustains physical injuries due to an accident while participating in education or research activities, commuting to or from the university, or moving between university facilities.
- All students are to enroll in this insurance system. If a student did not enroll in the insurance at the time of their enrollment at Tohoku University, they are to receive instructions from the Educational Affairs of Faculty of Pharmaceutical Sciences regarding insurance enrollment procedures.
- Separate liability insurance is also available for students undertaking practical teacher training to obtain a teaching license or nursing care experiential training; students who wish to enroll in this liability insurance should contact the Educational Affairs of Faculty of Pharmaceutical Sciences.

## §23. Campus Opening and Closing Times

Weekdays and Saturdays:      Campus opens at 7:00  
   Campus closes at 21:00

## Prevention of Research-Related Disasters

During the course of education in the Graduate School of Pharmaceutical Sciences and Pharmaceutical Department, there are many situations in which hazardous materials are handled or dangerous laboratory equipment is used, which is capable of causing a fire or explosions or disasters in which trauma, burns, poisoning, or radiation damage are suffered.

To prevent these kinds of research-related disasters, it is not simply enough to exercise caution while performing experiments, it is also essential to have well-developed prior knowledge, at an advanced level, regarding the handling of dangerous items (equipment) and disaster prevention measures.

At Tohoku University, the Graduate School of Pharmaceutical Sciences and the Faculty of Pharmaceutical Sciences provide guidance on the use of laboratories. The Environmental Management Committee plays a central role in providing such guidance, which is based on the “Guidelines on Safety and Health” created by the university.

Members should refer not only to these “Guidelines on Safety and Health” but also to the internal regulations (i.e., the disaster prevention, business continuation plan (BCP), internal regulations on radiation hazard prevention, and fire prevention and control regulations) of the Graduate School of Pharmaceutical Sciences and Pharmaceutical Department as they conduct their daily activities.

### I Fire prevention measures

#### 1. Points to note on a daily basis

Fire prevention shall be conducted in accordance with the “Disaster Prevention and BCP” and “Fire Prevention Management Regulations,” and the following should be considered when conducting daily activities:

- 1) Do not place obstacles in corridors, on stairs, on emergency stairs, near fire doors, or fire hydrants.
- 2) Do not allow electrical cords to make contact with gas pipes.
- 3) Do not use old electrical cords or rubber pipes.
- 4) Do not use fuses that exceed the standard specifications without permission.
- 5) Do not use sockets, electrical cords, or table power strips beyond their capacity.
- 6) Inspect appliances used with fire for damage or leaks.
- 7) Do not place flammable, easily-ignitable, or combustible items near fire.
- 8) Stands on which appliances used with fire are used should be made of non-combustible materials and kept far away from surrounding combustible items.
- 9) Experiments in which the test is left unattended should not be performed when using fire.
- 10) Disposal of flammable, easily-ignitable, or combustible items must be done in accordance with the “waste separation sheet.”

## 2. During a fire

- 1) During a fire, do not panic, call others immediately, and avoid making mistakes while following the fire-extinguishing procedures and methods (see the item on “Fire extinguishers”).
- 2) When turning off gas/power sources, try to do so from as far away as possible.
- 3) Remove combustible items from the surrounding area to eliminate sources of fire.
- 4) If your clothes catch fire, have somebody else extinguish the fire or, if you are on your own, roll around on the ground to extinguish the fire.

## 3. Fire extinguishers

Use appropriate fire-extinguishing methods according to the type and degree of fire. There is no fire-extinguishing agent that works against all fire types. Make sure you are familiar with the location, type, and handling of fire extinguishers on a daily basis.

- 1) Powder-based fire extinguishers.....Must be constantly available in each room and corridor  
The main component of such fire-extinguishing agents is heavy carbon soda or heavy carbon potash.
- 2) Sand for fire-extinguishing purposes  
Dry sand is effective against fires originating from alkaline metals, sodium, and potassium.
- 3) Carbon dioxide-based fire extinguishers  
Effective for fires originating from organic solvents, oils, and electricity.
- 4) Foam-based fire extinguishers  
These are not appropriate for electricity-based fires and are more effective for very large fires.
- 5) Carbon tetrachloride  
This is a supplementary extinguishing agent and is effective for small fires.  
However, exercise caution in regard to the occurrence of phosgene after use.

## 4. Evacuation

- 1) If you judge the fire or gas to be beyond your control using the above measures, promptly evacuate the building.
- 2) Never use the elevator.
- 3) After you have dealt with any gas or heat sources and processed hazardous materials as much as possible, check whether there are people who have not managed to evacuate.

## 5. Method of contacting others

- 1) Notify others of a fire as soon as possible and press the fire alarm button located in each corridor. (An alarm bell will sound, and a hydrant pump will be activated.)
- 2) An automatic fire alarm system is installed throughout both the Graduate School of Pharmaceutical Sciences and Pharmaceutical Department, so when a bell rings in the location where the fire breaks out, this

will be simultaneously be received by the receiver in the security guard's office, which will make it clear where the fire has occurred.

- 3) If you discover a fire during the daytime, call the representative of the Graduate School of Pharmaceutical Sciences and Pharmaceutical Department (795-6808). At night or on the weekends, call the security guards (extension 6810) immediately and notify them of the location where the fire broke out and the related situation.
- 4) In case a fire alarm bell rings, or you are notified that a fire has broken out, go to the scene immediately with a fire extinguisher, and extinguish the fire.

However, you should follow the guidance of those who have more detailed knowledge about the location of hazardous items near the site of the fire.

In case the fire spreads, those without a detailed understanding of the status of the fire should promptly evacuate, while those who have more detailed knowledge should cooperate with the fire department or firefighters to extinguish the fire.

## 6. Overnight unmanned experiments

When conducting unmanned overnight experiments that are considered essential for research purposes, for which it cannot be completely guaranteed that accidents will not occur, take all possible safety measures in accordance with the determination of the Environmental Management Committee of the Graduate School of Pharmaceutical Sciences and Pharmaceutical Department. Security guards should also be notified that these will take place.

## II Emergency procedures

If you feel unwell and wish to rest, you can make a request to the Academic Affairs Section. You may also use the Tohoku University Hospital as follows.

1. Use of the Advanced Emergency Medical Center at Tohoku University Hospital (1-1 Seiryomachi, Sendai Aoba-Ku, Miyagi) TEL (717) 7499

Seek assistance from Tohoku University Hospital in case of injuries that cannot be treated using emergency treatment in the Graduate School or by faculty (Call an ambulance in case of serious injury on 119).

Note concerning hospital procedures

- When using the hospital, it is standard procedure for the student to be accompanied by a faculty or staff member for procedural reasons. In this case, the accompanying staff member must bring their ID card.
- Patients must display their student ID and insurance card at the reception desk and act in accordance with the directions of the staff.
- If you do not have your insurance card on hand, you may submit it at a later date as long as you know the insurance card number.

2. Medical expenses in case of a disaster

If you receive medical treatment at Tohoku University Hospital due to an accident that occurred during regular classes (including experiments), the cost may be waived through the use of a “Certificate of Medical Treatment for Research Accidents.”

# Graduate School of Pharmaceutical Sciences & Faculty of Pharmaceutical Sciences, Tohoku University Procedural Guidelines on Student Accidents

(Approved by the Graduate School Faculty Council October 17, 2001)

(Objectives and warnings)

Article 1 The purpose of these is to standardize and facilitate procedures that need to be undertaken in the event of deaths, injuries, theft, fires, natural disasters, and property damage (including acts of property destruction and vandalism) and similar accidents (hereinafter, “accidents”) that occur on the premises of the Graduate School and Faculty of Pharmaceutical Sciences for which the first witness is a student or researcher of the graduate school/faculty (hereinafter, “student”).

2 In the event of an accident on the premises of this graduate school/faculty, students of this graduate school/faculty must take appropriate measures according to these guidelines established based on the Tohoku University Procedural Guidelines on Student Accidents.

3 In applying these guidelines, human life must receive top priority, and due attention must be paid to avoid impeding the functions of research and education at the university.

(Fire)

Article 2 In the event that a student discovers a fire, they shall alert other students in nearby laboratories, etc., by calling out “FIRE!”; they should then use the nearby fire alarm and immediately notify the fire department. If extinguishing the fire and preventing the spread of damage is possible without endangering their own physical safety, this should be done in cooperation with nearby faculty, staff, and students. In addition, the student shall immediately notify a faculty member, the graduate school/faculty office, and security guards regarding the fire.

(Death or injury of humans)

Article 3 In the event that a student discovers an accident involving injury or death, the student shall immediately take life-saving measures such as calling for a physician or ambulance. Furthermore, the student shall immediately notify a faculty member, the graduate school/faculty office, and security guards of the accident.

(Property damage or vandalism)

Article 4 In the event that a student discovers or causes an accident involving property damage, the student shall immediately notify a faculty member, the graduate school/faculty office, and security guards regarding the accident.

(Theft)

Article 5 In the event that a student witnesses or is a victim of theft, the student shall immediately notify a

faculty member, the graduate school/faculty office, and security guards of the theft.

(Report to the police)

Article 6 A student who discovers an accident that threatens or potentially threatens human lives or physical safety, and which requires immediate police intervention, shall make a police report and immediately notify a faculty member, the graduate school/faculty office, and security guards of the accident.



# Using On-Campus Facilities

## Kita-Aobayama Library

The use of the Tohoku University Kita-Aobayama Library is subject to the terms of use established by the library.

### 1. Opening hours

9:00 a.m. to 8:00 p.m.

(However, during spring, summer, and winter holidays, library hours are from 9:00 a.m. to 5:00 p.m.)

### 2. Library holidays

Saturday, Sunday, national holidays (including substitute holidays), Foundation Day (June 22), year-end and New Year holidays, and other days deemed necessary by the branch librarian.

### 3. Admission and reading

Users must present identification, such as a student ID and library card when entering the library. You can freely search and browse the books in the library, except in the case of books specified otherwise by the branch librarian.

### 4. Lending

i) Those who wish to borrow books must obtain a library card and submit it along with the books they wish to borrow at the counter.

ii) The number of books that can be borrowed is up to ten per graduate student and up to five per undergraduate student, and the lending period is up to 14 days. Users wishing to extend the lending period must submit the loaned book along with the library card at the counter. Users can also apply for an extension from MyLibrary. Please check the branch library website for further details.

iii) The following books may not be loaned.

a) Dictionaries, lexicons, indexes; b) reference books; and c) journals

iv) When users borrow books as an out-library loan, they shall not loan the book to other persons.

5. Any user who damages or loses a book that has been loaned or read must promptly report it. Depending on the reason, the same book or an equivalent reimbursement may be sought.

6. Please refer to the library usage guide for further details.

## Aobayama Gymnasium of the School of Engineering

To use the Aobayama Gymnasium of the School of Engineering, please submit an application for permission to the Student Support Section of the School of Engineering at least three days before the date of use and obtain permission to use the gymnasium. (Applications are accepted from a month before the date of use.)