

**HOKKAIDO UNIVERSITY**  
**GRADUATE SCHOOL OF HEALTH SCIENCES**

# **STUDENT HANDBOOK**

**April 2023**



# **Graduate School of Health Sciences Admissions Policy**

Revised: May 19, 2022 Graduate School of Health Sciences Faculty Council

## **Our Vision**

At the Graduate School of Health Sciences, we aim to produce advanced healthcare professionals and healthcare instructors who possess cutting-edge knowledge and practical technique.

We are also committed to developing advanced healthcare professionals, educators and researchers who can forge the health sciences of the next generation.

Through the provision of education, we strive to produce quality graduates who will play leading roles in global healthcare research across disciplines.

## **Educational Objectives**

To address the growing demand for health sciences from healthcare and society, the Graduate School of Health Sciences has determined that the Graduate School produce advanced healthcare professionals who improve their expert skills and knowledge gained from undergraduate education and work experience, develop advanced and professional decision-making skills and practical skills in medical technology and play a key role in the evidence-based advancement in healthcare sciences as well as the educators and researchers who undertake a leadership role in healthcare sciences research.

## **Students We Are Seeking:**

In the Graduate School of Health Sciences, we seek students who:

- 1) Enhance their expertise in health sciences and aim for academic development through the integration of and collaboration between various disciplines.

We seek to identify not only the students with undergraduate education in healthcare but also with diversified academic backgrounds regardless of region, culture and nationality.

- 2) Demonstrate a drive to learn, academic skills, creative mind, logical thinking and leadership which are vital for human resources development in accord with the aforementioned "Our Vision".

## **Basic Admissions Policy**

### **Master's Degree Programs (Home Student/Working Adult/Overseas Student)**

- A. Home Student/Working Adult applicants shall be holistically screened through a set of a written admissions exam, an interview and an application document review.

- B. Overseas Student applications shall be screened with a comprehensive result of an interview and an application document review.

### **Admissions Slots, Assessment Methods, Desired Applicants and Levels of Significance applied to the Master's Degree Program Admissions**

The below table describes how the "Students We Are Seeking" 1) and 2) factors are associated with, and how much they are weighed by the "Assessment Methods".

⊙ = highly significantly weighed    ○ = significantly weighed

| Admissions Slot               | Assessment Method           | Students We Are Seeking |    |
|-------------------------------|-----------------------------|-------------------------|----|
|                               |                             | 1)                      | 2) |
| Home Student<br>Working Adult | Specialized subject exam    | ⊙                       | ⊙  |
|                               | Language exam               | ⊙                       | ○  |
|                               | Interview                   | ○                       | ⊙  |
|                               | Application document review | ○                       | ○  |
| Overseas Student              | Interview                   | ⊙                       | ⊙  |
|                               | Application document review | ⊙                       | ⊙  |

### **Doctoral Degree Programs (Home Student/Working Adult/Overseas Student)**

- A. Home Student/Working Adult applicants shall be holistically screened through a set of an oral exam and an application document review.
- B. Overseas Student applications shall be screened with a comprehensive result of an application document review.

### **Admissions Slots, Assessment Methods, Desired Applicants and Levels of Significance applied to the Doctoral Degree Program Admissions**

The below table describes how the "Students We Are Seeking" 1) and 2) factors are associated with, and how much they are weighed by the "Assessment Methods".

⊙ = highly significantly weighed    ○ = significantly weighed

| Admissions Slot               | Assessment Methods          | Students We Are Seeking |    |
|-------------------------------|-----------------------------|-------------------------|----|
|                               |                             | 1)                      | 2) |
| Home Student/Working<br>Adult | Oral exam                   | ⊙                       | ⊙  |
|                               | Application document review | ○                       | ○  |
| Overseas Student              | Application document review | ⊙                       | ⊙  |

## Graduate School of Health Sciences Diploma Policy (DP)

Under Hokkaido University's four core principles (Frontier Spirit, Global Perspectives, All-Round Education and Practical Learning), the Graduate School of Health Sciences sets educational objectives to develop human resources with broad knowledge, good judgement and practical skills to deal with the advancement, interdisciplinary expansion and internationalization of science and technology adding to the basic knowledge in health sciences and sophisticated expertise.

Having the degree conferment requirements for master's and doctoral degree programs established with the concrete competence profiles set by the educational objectives, the Graduate School awards master's and doctoral degrees to those who possess the competence and pass a thesis/dissertation review as well as exams upon completion of required course credits.

### Degree Conferment Requirements Applicable to the Students in the Division of Health Sciences

The Division of Health Sciences aims to produce qualified graduates as advanced healthcare professionals, instructors, educators and researchers of the next generation in health sciences as it implements health sciences research through the integration of and collaboration between various disciplines. The Graduate School confers a master's or a doctoral degree on a student who possesses the following practical skills in compliance with its educational objectives.

Upon completion of the **master's** degree program, students are expected to:

- Have up-to-date knowledge and sound understanding of the field of health sciences;
- Possess essential skills for researchers in the field of health sciences to implement research and make an ethical judgement;
- Show a methodical mind requisite in health sciences research;
- Demonstrate the judgement on the validity of research results in the field of health sciences;
- Have the competence to study the significance of research results in the field of health sciences;
- Leverage communication skills to discuss with health sciences researchers and those from other disciplines;
- Exhibit implementation skills which an advanced health science professional ought to have.

Upon completion of the **doctoral** degree program, students are expected to:

- Have up-to-date knowledge and an in-depth understanding of the field of health sciences;
- Possess advanced essential skills for researchers in the field of health sciences to implement research and make an ethical judgement;
- Show competency to find research issues in the field of health sciences;
- Use insight and a flexible mindset to solve challenging problems in the field of health sciences;
- Demonstrate planning, coordination and leadership skills which are essential to the research and development in health sciences; and
- Leverage communication skills to discuss with health sciences researchers and those from other disciplines in the global community

## **Graduate School of Health Sciences Curriculum Policy (CP)**

The Division of Health Sciences in the Graduate School of Health Sciences offers highly specialized courses in the set major fields of study and establishes cross-disciplinary/interdisciplinary courses with the aim of developing human resources with the skills as provided in its Diploma Policy. It designs and implements the curriculum as below under a research supervision system providing more than one supervising faculty member per student.

In order to assure high-quality education, the Graduate School encourages faculty to take part in faculty training designed to raise the teaching quality of the faculty under the FD committee's schemes. Through the activities of the Academic Affairs Committee and the Students' Committee, the Graduate School implements education assessment to further its continuing institutional reform providing student academic support/career counseling services and conducting education system assessment.

### **Learning Outcome Assessment Policy**

#### **I Academic Assessment Criteria**

1. In keeping with the "specific skills expected of human resources we develop" which the degree conferment requirements of the Division of Health Sciences elaborate in the Diploma Policy of the Graduate School, the academic assessment shall be conducted against set learning objectives for each course to measure course enrollees' achievement levels of learning outcomes.
2. The Division shall not provide a suggested grade distribution for each course.
3. Pass-fail grading can be applied to the academic assessment only when the class format of the course is experiment, practical training or research.
4. Academic Assessment Advisory Committee shall examine the adequacy of the learning objectives for each course and the academic assessment results achieved against those objectives every semester, then request the faculty in charge to review the learning objectives if necessary.

#### **II Academic Assessment Methods**

1. The academic assessment shall be conducted using exam scores, marks on reports and presentation scores as well as the student's levels of proactive learning approach and engagement in class.
2. Record of class attendance will not be simply converted into numeric values and used in the assessment.
3. Faculty in charge of the course shall determine the specific assessment methods.

In the master's degree programs, the Division of Health Sciences shall:

- Offer students advanced and core "Division of Health Sciences Common Foundation Courses" to acquire knowledge and technical skills to deal with a wide range of fields in health sciences;
- Offer students necessary courses to develop expertise and practical skills relevant to the fields of health sciences;
- Offer students the courses to acquire knowledge, technical skills and implementation skills to contribute globally to the field of health sciences;

- Establish a research supervision system which appoints a chief supervisor and a sub-chief supervisor(s) for each student by the end of the first year of the degree program;
- Hold a mid-term thesis presentation for master's theses and research papers where faculty other than the supervisors can advise on theses in the first half of the second year of master's degree programs to help students develop quality research projects; and
- Provide students with TA job opportunities to improve their teaching skills which they can apply to a variety of careers.

In the doctoral degree programs, the Division of Health Sciences shall:

- Offer the Supervised Individual Research course in all major fields of study to help students carry out their research projects with the aim of acquiring problem-solving skills and learning the methods of research paper writing which are requisites of a self-organized researcher;
- Establish a research supervision system which appoints a chief supervisor and a sub-chief supervisor(s) for each student by the end of the first year of the degree program;
- Hold a mid-term dissertation presentation for doctoral dissertations where faculty other than the supervisors can advise on dissertations to help students develop quality research projects; and
- Provide students with TA/RA job opportunities to step up their teaching skills and project implementation skills which they can apply to the professions in university settings or the research and development field in health sciences.

## Chapter 1 General Provisions

### (Purpose)

Article 1 These regulations prescribe necessary matters with regard to the curriculum of the Graduate School of Health Sciences (hereinafter referred to as “Graduate School”) in accordance with the provisions in Article 27-3, Paragraph 4 of the *National University Corporation Hokkaido University Organizational Regulations* (HU Doc. No. 31 of 2004).

### (Objective)

Article 2 The Graduate School aims to develop highly specialized professionals with significant expertise in health sciences, capacities for judgement and ethical standards as well as practical skills in the latest healthcare technologies, and educators and researchers who can conduct unique research and development in health sciences through basic and applied healthcare education and research.

## Chapter 2 Division, Degree Programs and Enrollment Categories

### (Division)

Article 3 The following division shall be established in the Graduate School.

Division of Health Sciences

### (Program)

Article 4 The Graduate School shall provide doctoral degree programs.

### (Enrollment Category)

Article 5 The Division of Health Sciences consists of the following streams in one of which students shall be enrolled.

Health Sciences

Nursing

## Chapter 3 Admission, re-admission, transfer and affiliation change

### (Admission)

Article 6-1 Those who are eligible for admission to study in a master's degree program prescribed in Article 4, Paragraph 5 of the *Hokkaido University General Regulations for Graduate Studies* (HU Doc. No. 3 of 1954; hereinafter referred to as "General Regulations") (the above program shall be hereinafter referred to as "master's degree program") shall fall under any of the items in Article 10, Paragraph 1 of the General Regulations. And those who are eligible for admission to study in the latter period of the doctoral program prescribed in Article 4, Paragraph 5 of the General Regulations (hereinafter referred to as "doctoral degree program" shall fall under any of the items in Article 10, Paragraph 2.

Article 6-2 The President of Hokkaido University shall, after deliberation by the Faculty Council, grant admission to those who fall under any of the provisions in the preceding paragraph and have passed the selection process conducted by the Graduate School.

(Re-admission and Transfer)

Article 7-1 When a student who falls under any of the items in Article 13 of the General Regulations applies for re-admission or a transfer to the Graduate School, the President may grant permission after deliberation by the Faculty Council upon screening.

(Affiliation Change)

Article 7-2 When a student who falls under Item 1 in Article 13-2 of the General Regulations applies for an affiliation change to the Graduate School, the Dean of the Graduate School may grant permission after deliberation by the Faculty Council upon screening.

#### Chapter 4 Courses, Program Completion Requirements, Course Taking Policy and Examinations

(Courses and credits)

Article 8 The courses and credits offered by the Division of Health Sciences are listed in the Appended Table.

(Basis for Credit Calculation)

Article 9-1 In terms of the number of credits for each course, given the fact that a one-credit course is designed to require 45 hours of study as a standard, the one-credit course shall consist of 15 hours of lectures or seminars in consideration of the educational benefits from the classes and the study outside class hours which shall be determined by the type of teaching methods.

Article 9-2 Notwithstanding the provisions of the preceding paragraph, the number of credits for the courses which involve dissertation writing or research required for program completion shall be determined with the necessary study to complete those program requirements considered.

(Requirements for program completion)



Article 10-1 The requirements for the completion of a master's degree program are: to have been enrolled in a graduate school for two years or more; to have attained 30 credits or more; and, having had necessary research supervision, to pass the review for a master's degree thesis or research outcomes on a specific topic as well as exams conducted by the Graduate School according to the purposes of the master's degree program. The enrollment period of one year or more in a graduate school shall be however deemed sufficient for those who have demonstrated outstanding research achievements.

Article 10-2 With regard to the master's degree program completion requirements for the students whose major field of study (kamoku-gun) is either Advanced Public Health Nursing, Advanced Midwifery or Advanced Practice Nursing prescribed in the Master's Degree Program in Nursing in the Appended Table, the provisions in the preceding paragraph and the Paragraph 1 of the next Article shall apply with a requirement of "36 credits" replacing "30 credits" prescribed in the preceding Paragraph and the Paragraph 1 of the next Article.

Article 10-3 When deemed educationally beneficial for students, the Graduate School may designate the courses provided by the divisions of kennkyu-ka, gakuin and kyouiku-bu (referred to as "Graduate Schools" in Paragraph 5 and Paragraph 5 of the next Article) in Hokkaido University (referred to as "HU" in Paragraph 5, the Paragraph 5 of the next Article and Article 15), the undergraduate courses or the Special Cross-Disciplinary Courses prescribed in the *Hokkaido University Special Cross-Disciplinary Courses Rules* (HU Doc. 50 of 2019) to be taken by the students and credit students with master's course credits.

Article 10-4 When deemed educationally beneficial for students, the Graduate School may designate the courses prescribed in the *Hokkaido University Graduate School Regulations Concerning Inter-Graduate School Classes* (HU Doc. No. 24 of 2000) (referred to as "Inter-Graduate School Courses" in Paragraph 4 of the next Article) to be taken by the students and credit students with master's course credits.

Article 10-5 When deemed educationally beneficial for students, the Graduate School may approve its students to receive necessary research supervision prescribed in Paragraph 1 at other Graduate Schools of HU for a period not exceeding one year.

Article 11-1 The requirements for the completion of a doctoral degree program are: "to have been enrolled in a graduate school for five years or more (including the two years or more of the master's degree program period, or the two years enrollment period for the master's degree program if the person has completed the program)"; to have attained 30 credits or more in the master's degree program and 12 credits or more in the doctoral degree program; and, having had necessary research supervision, to pass the review for a doctoral degree dissertation and exams conducted by the Graduate School. The enrollment period of three years or more in a graduate school (including the two years or more of the master's degree program period, or the two years enrollment period for the master's degree program if the person has completed the program) shall be however deemed sufficient for those who have demonstrated outstanding research achievements.

#### Article 11-2

With regard to the doctoral degree program completion requirements for the students who have completed a master's degree program after being enrolled for the period stipulated in the provisions under the Paragraph

1 proviso in the preceding Article, the provisions in the preceding paragraph shall apply with a requirement of: “to have been enrolled for the period of master’s degree program plus additional three years” replacing “to have been enrolled in a graduate school for five years or more (including the two years or more of the master’s degree program period, or the two years enrollment period for the master’s degree program if the person has completed the program)” in the preceding paragraph; and a requirement “three years (including the enrollment period of a master’s degree program) replacing “the enrollment period of three years or more in a graduate school (including the two years or more of the master’s degree program period, or the two years enrollment period for the master’s degree program if the person has completed the program)” in the preceding paragraph.

Article 11-3 Notwithstanding the provisions of the preceding two paragraphs, under the provisions of Article 156 of the Ordinance for Enforcement of the School Education Act (Ordinance of the Ministry of Education No. 11 of 1947), when persons who are found to have academic competence equivalent or superior to the holders of a master’s degree or professional degree in terms of admissions eligibility or those who completed a professional degree program enrolled in a doctoral degree program (the latter three years of the graduate program), the doctoral degree program completion requirements shall be: to have been enrolled in a graduate school for three years or more (two years for those who have completed a law school program prescribed in Article 18, Paragraph 1 of the *Standards for Establishment of Professional Graduate Schools* (Ordinance of the Ministry of Education, Culture, Sports, Science and Technology, No. 16 of 2003)); to have attained 12 credits or more; and, having had necessary research supervision, to pass the review for a doctoral degree dissertation and exams conducted by the Graduate School. The enrollment period of one year or more, however, shall be deemed sufficient for those who have demonstrated outstanding research achievements (for those who completed a professional degree with the standard duration of one year or more but less than two years, the number of years equal to, or longer than, the solution to the calculation ‘three years subtracted by the applicable standard duration (one year or more but less than two years)’ applies).

Article 11-4 When deemed educationally beneficial for students, the Graduate School may designate some of the Inter-Graduate School Courses to be taken by the students and credit students with doctoral course credits as part of the requirements stipulated in Paragraph 1.

Article 11-5 When deemed educationally beneficial for students, the Graduate School may confirm students to have research supervision at HU’s Graduate Schools as prescribed in Paragraph 1. Master’s students may however be under such research supervision for no more than one year.

(Extended Enrollment)

#### Article 12-1

Upon application by a working student for extended enrollment for a fixed period beyond the standard duration to take up necessary courses and complete a graduate program as organized in advance in order to balance work and study commitments, the Graduate School may give the student its approval of the organized enrollment plan (referred to as “Extended Enrollment” in the next Paragraph) after deliberation by the Faculty Council.

Article 12-2 In addition to what is prescribed regarding the Extended Enrollment in Article 4-2 of the General Regulations, the Dean of the Graduate School shall separately determine necessary matters at the Graduate School after deliberation by the Faculty Council.

(Enrollment in the Graduate Schools of Other Universities)

Article 13-1 When deemed educationally beneficial, students may, upon deliberation by the Faculty Council, take courses at the graduate schools of other universities, overseas graduate schools or United Nations University which was founded by the resolution of the General Assembly of the United Nations on December 11, 1972 as prescribed in Article 1, Paragraph 2 of the “*Act on Special Measures Concerning the Enforcement of the Agreement between the United Nations and Japan about the Headquarters of the United Nations University*” (Act No. 72 of 1976) (referred to as “United Nations University” in Paragraph 1 of the next Article and Article 15, Paragraph 1).

Article 13-2 The credits for the courses taken or the academic achievement which students have attained under the provisions of the preceding Paragraph shall be deemed part of, but not exceeding 15 credits in total for the whole duration of master’s and doctoral degree programs, the required credits under the provisions of Article 10 and 11.

Article 13-3 When deemed educationally beneficial, students may, upon deliberation by the Faculty Council, have necessary research supervision at the graduate schools of other universities, research institutes or graduate schools/research institutes abroad. Master’s students may however be under such research supervision for not exceeding one year.

(Credits Attained at the Graduate Schools of Other Universities During the Leave of Absence)

Article 14-1 When deemed educationally beneficial for students, upon deliberation by the Faculty Council, the Graduate School shall count the credits attained at a graduate school of another university and the academic achievement attained at an overseas graduate school or United Nations University during their leave of absence as the credits attained by taking the courses offered by the Graduate School.

Article 14-2 The total number of credits attained under the provisions in the preceding paragraph and Paragraph 2 of the preceding Article shall not exceed 15 for the full duration of master’s and doctoral degree programs.

(Approval of Credits Earned Before Enrollment and Number of Years Attended)

Article 15-1 When deemed educationally beneficial for students, upon deliberation by the Faculty Council, the Graduate School shall count the credits of a newly enrolled student to the Graduate School attained before enrollment at a graduate school in HU or a graduate school of another university (including the credits for the courses enrolled by the student who was a credit auditor as prescribed in Article 15 of the “*Standards for Establishment of Graduate Schools*” (Ordinance of the Ministry of Education, Culture, Sports, Science and Technology, No. 28 of 1974), or the academic achievement attained at an overseas graduate school or United Nations University, as the credits attained through courses at the Graduate School. The number of

approvable credits attained at institutes other than HU shall not exceed 15 for the full duration of master's and doctoral degree programs.

Article 15-2 The total number of approvable credits attained under the provisions in the preceding paragraph, Article 13 Paragraph 2 and Paragraph 2 of the preceding Article shall not exceed 20 for the full duration of master's and doctoral degree programs.

Article 15-3 When the Graduate School counts the credits or academic achievement attained before enrollment (those attained after being qualified for admission to graduate study (defined in Article 102, Paragraph 1 of the *School Education Act*, Act No. 26 of 1947) as the credits attained at the Graduate School under the provisions in Paragraph 1, and it deems the said credits or academic achievement satisfying partial completion of a master's degree program of the Graduate School, the time spent for attaining the credits in consideration with the number of attained credits shall be deemed a period of attendance at the Graduate School with the length determined by the Graduate School for up to 1 year. In this case, however, the student shall be enrolled in the concerned master's program for at least one year.

(Course Enrollment Methods)

Article 16 The Dean of the Graduate School shall determine the details of course enrollment methods after deliberation by the Faculty Council.

(Examination)

Article 17 Examinations for courses (hereinafter referred to as "Course Exams") shall be conducted at the end of the semester after the completion of all classes offered for each course. Ad hoc Course Exams may nevertheless take place upon deliberation of the Faculty Council under unavoidable circumstances.

(Academic Assessment)

Article 18 Course Exams shall be graded on a five-point grading scale of Excellent, Very Good, Good, Fair, and Fail in which Excellent, Very Good, Good, and Fair are passing grades.

(Thesis/Dissertation Maximum Submission Date)

Article 19 Theses and dissertations must be submitted by the due date specified by the Graduate School.

## Chapter 5 Program Completion Approval

(Program Completion Approval)

Article 20 The President of HU shall approve the master's and doctoral program completion for students who meet program completion requirements upon deliberation by the Faculty Council.

## Chapter 6 Special Auditor, Special Research Student and Overseas Student

(Special Auditor)

Article 21-1 The Graduate School shall, after deliberation of the Faculty Council, admit students from the graduate schools of other universities and from overseas graduate schools who intend to enroll in particular courses and attain credits at the Graduate School as special auditors.

Article 21-2 Admissions shall be on a semester-by-semester or year-by-year basis for the special auditors.

Article 21-3 Regarding the implementation of Course Exams and academic assessment, the provisions in Articles 17 and 18 shall apply mutatis mutandis to the special auditors.

(Special Research Student)

Article 22 The Graduate School shall, after deliberation of the Faculty Council, admit students from the graduate schools of other universities and from overseas graduate schools who intend to have research supervision at the Graduate School as special research students.

Article 23 Deleted

(Overseas Student)

Article 24 The President of HU shall, after deliberation of the Faculty Council, approve the admissions of overseas students under the provisions in Article 47 of the General Regulations.

Supplementary Provisions

These Rules come into force on April 1, 2008.

Supplementary Provisions (HU Doc. No.103, April 1, 2010)

1 These Rules come into force on April 1, 2010.

2 Notwithstanding the provisions of the revised Appended Table, the provisions then in force shall remain applicable to the students who are enrolled in the graduate schools of HU as of March 31, 2010 (hereinafter in this Paragraph referred to as "Enrolled Students") and those who enroll in one of the program years to which the Enrolled Students belong on or after April 1 of the same year.

Supplementary Provisions (HU Doc. No.129, April 1, 2011)

1 These Rules come into force on April 1, 2011.

2 Notwithstanding the provisions of the revised Appended Table, the provisions then in force shall remain applicable to the students who are enrolled in the graduate schools of HU as of March 31, 2011 (hereinafter in this Paragraph referred to as "Enrolled Students") and those who enroll in one of the program years to which the Enrolled Students belong on or after April 1 of the same year.

.

Supplementary Provisions (HU Doc. No. 70, April 1, 2013)

1 These Rules come into force on April 1, 2013.

2 Notwithstanding the provisions of the revised Appended Table, the provisions then in force shall remain applicable to the students who are enrolled in the graduate schools of HU as of March 31, 2013 (hereinafter in this Paragraph referred to as “Enrolled Students”) and those who enroll in one of the program years to which the Enrolled Students belong on or after April 1 of the same year.

Supplementary Provisions (HU Doc. No. 133, April 1, 2014)

1 These Rules come into force on April 1, 2014.

2 Notwithstanding the provisions of the revised Article 10, Paragraph 2 and the revised Appended Table, the provisions then in force shall remain applicable to the students who are enrolled in the graduate schools of HU as of March 31, 2014 (hereinafter in this Paragraph referred to as “Enrolled Students”) and those who enroll in one of the program years to which the Enrolled Students belong on or after April 1 of the same year.

Supplementary Provisions (HU Doc. No. 141, April 1, 2015)

1 These Rules come into force on April 1, 2015.

2 Notwithstanding the provisions of the revised Appended Table, the provisions then in force shall remain applicable to the students who are enrolled in the graduate schools of HU as of March 31, 2015 (hereinafter in this Paragraph referred to as “Enrolled Students”) and those who enroll in one of the program years to which the Enrolled Students belong on or after April 1 of the same year.

Supplementary Provisions (HU Doc. No. 101, April 1, 2016)

1 These Rules come into force on April 1, 2016.

2 Notwithstanding the provisions of the revised *Hokkaido University Graduate School of Health Sciences Rules*, the provisions then in force shall remain applicable to the students who are enrolled in the graduate schools of HU as of March 31, 2016 (hereinafter in this Paragraph referred to as “Enrolled Students”) and those who enroll in one of the program years to which the Enrolled Students belong on or after April 1 of the same year.

Supplementary Provisions (HU Doc. No. 123, April 1, 2017)

These Rules come into force on April 1, 2017.

Supplementary Provisions (HU Doc. No. 76, April 1, 2018)

1 These Rules come into force on April 1, 2018.

2 Notwithstanding the provisions of the revised Article 10, Paragraph 2 and the revised Appended Table, the provisions then in force shall remain applicable to the students who are enrolled in the graduate schools of HU as of March 31, 2018 (hereinafter in this Paragraph referred to as “Enrolled Students”) and those who enroll in one of the program years to which the Enrolled Students belong on or after April 1 of the same year.

Supplementary Provisions (HU Doc. No. 107, April 1, 2019)

These Rules come into force on April 1, 2019)

Supplementary Provisions (HU Doc. No. 91, April 1, 2020)

1 These Rules come into force on April 1, 2020.

2 Notwithstanding the provisions of the revised Appended Table, the provisions then in force shall remain applicable to the students who are enrolled in the graduate schools of HU as of March 31, 2020 (hereinafter in this Paragraph referred to as “Enrolled Students”) and those who enroll in one of the program years to which the Enrolled Students belong on or after April 1 of the same year.

Supplementary Provisions (HU Doc. No. 79, April 1, 2021)

These Rules come into force on April 1, 2021

Supplementary Provisions (HU Doc. No. 98, April 1, 2022)

1 These Rules come into force on April 1, 2022.

2 Notwithstanding the provisions of the revised Appended Table, the provisions then in force shall remain applicable to the students who are enrolled in the graduate schools of HU as of March 31, 2022 (hereinafter in this Paragraph referred to as “Enrolled Students”) and those who enroll in one of the program years to which the Enrolled Students belong on or after April 1 of the same year.

Supplementary Provisions (HU Doc. No. \_\_, April 1, 2023)

1 These Rules come into force on April 1, 2023.

2 Notwithstanding the provisions of the revised Appended Table, the provisions then in force shall remain applicable to the students who are enrolled in the graduate schools of HU as of March 31, 2023 (hereinafter in this Paragraph referred to as “Enrolled Students”) and those who enroll in one of the program years to which the Enrolled Students belong on or after April 1 of the same year.

Appended Table (Quoted in Article 8)

Master’s Degree Programs

Division of Health Sciences Common Foundation Courses

| Course Type                | Course Name                                  | Credit | Remarks  |
|----------------------------|--|--------|--|
| Required Course            | Risk Management                              | 1      | The Degree requires a minimum of 8 credits including 1 credit from the Required Courses, 1 or more credits from the Required Elective Courses A in addition to 2 credits from the Required Elective Courses B. |
| Required Elective Course A | Health Care Ethics                           | 1      |  |
|                            | Nursing Ethics                               | 2      |  |
| Required Elective Course B | Experimental Methodology                     | 2      |  |
|                            | Case Study Methods in Health Sciences        | 2      |  |
|                            | Methods of Qualitative Research              | 2      |  |
|                            | Research Strategies in Health Sciences       | 2      |  |
|                            | Methodology in Nursing Research              | 2      |  |
| Elective Course            | Statistical Practice for Healthcare Research | 2      |  |
|                            | Advanced Laboratory Medicine                 | 2      |  |
|                            | Oncology and Regenerative Medicine           | 2      |  |
|                            | Functional Anatomy                           | 2      |  |

| Course Type | Course Name                         | Credit | Remarks |
|-------------|-------------------------------------|--------|---------|
|             | Health Sciences                     | 2      |         |
|             | Sports and Physical Fitness Science | 2      |         |
|             | Physiological Functions of Foods    | 2      |         |
|             | Nutraceutical Pharmacodynamics      | 2      |         |
|             | Team Approach to Health Care        | 2      |         |

#### Master's Degree Program in Health Sciences

| Major Field of Study and Course Type |                          | Course   | Credit | Remarks  |
|--------------------------------------|--------------------------|--|--------|--|
| Biomedical Science and Engineering   | Required Elective Course | Advanced Lecture on Medical Physics and Biomedical Engineering | 2      | The students in the Master's Degree Program of Health Sciences must select one major field of study from "Biomedical Science and Engineering", "Medical Laboratory Science", "Rehabilitation Science" and "Health Research Studies". The degree requires a minimum of 14 credits including a set of a Lecture (2 credits) and a Seminar (2 credits) from your major field of study in addition to "Supervised Individual Study in Health Sciences" (10 credits). |
|                                      |                          | Quantum Life Medical Science                                   | 2      |  |
|                                      |                          | Seminar on Quantum Life Medical Science                        | 2      |  |
|                                      |                          | Advanced Lecture on Diagnostic Imaging                         | 2      |  |
|                                      |                          | Seminar on Diagnostic Imaging                                  | 2      |  |
|                                      |                          | Clinical Imaging Technology                                    | 2      |  |
|                                      |                          | Seminar on Clinical Imaging Technology                         | 2      |  |
| Medical Laboratory Science           | Required Elective Course | Comprehensive Assessment of Cardiovascular Function            | 2      |  |
|                                      |                          | Seminar on Comprehensive Assessment of Cardiovascular Function | 2      |  |
|                                      |                          | Blood Regulation and Regeneration                              | 2      |  |
|                                      |                          | Seminar on Blood Regulation and Regeneration                   | 2      |  |
|                                      |                          | Analytical Chemistry for Metabolic Research                    | 2      |  |
|                                      |                          | Seminar on Analytical Chemistry for Metabolic Research         | 2      |  |
|                                      |                          | Advanced Lecture on Infection and Stress Response              | 2      |  |
|                                      |                          | Seminar on Infection and Stress Response                       | 2      |  |
|                                      |                          | Immunopathogenesis   | 2      |  |
|                                      |                          | Seminar on Immunopathogenesis                                  | 2      |  |
| Rehabilitation Science               | Required Elective Course | Motor Control  | 2      |  |
|                                      |                          | Seminar on Motor Control                                       | 2      |  |
|                                      |                          | Management of Musculoskeletal System Disorders                 | 2      |  |



| Major Field of Study and Course Type           |                 | Course  | Credit                   | Remarks |
|--|-----------------|---|--------------------------|---------|
|  |                 | Seminar on Management of Musculoskeletal System Disorders   | 2                        |         |
|  |                 | Occupational Adaptation for Developmental Disabilities and Neuropsychological Disabilities            | 2                        |         |
|  |                 | Seminar on Occupational Adaptation for Developmental Disabilities and Neuropsychological Disabilities | 2                        |         |
|  |                 | Biomedical System Control Science   | 2                        |         |
|  |                 | Biomedical System Control Science Seminar   | 2                        |         |
|  |                 | Rehabilitation for Patients with Mental Disorders   | 2                        |         |
|  |                 | Seminar on Rehabilitation for Patients with Mental Disorders  | 2                        |         |
|  |                 | Fundamental Research for Functional Biology   | 2                        |         |
|  |                 | Seminar on Fundamental Research for Functional Biology  | 2                        |         |
|  |                 | Advanced Sports Physical Therapy  | 2                        |         |
|  |                 | Sports Physical Therapy Seminar   | 2                        |         |
|  |                 | Health Research Studies   | Required Elective Course |         |
| Exercise on Environmental Health Sciences      | 2               |   |                          |         |
| Human Ecology                                  | 2               |   |                          |         |
| Seminar on Human Ecology                       | 2               |   |                          |         |
| Advanced Metrology of Functional Information   | 2               |   |                          |         |
| Seminar on Metrology of Functional Information | 2               |   |                          |         |
| Health Information Science                     | 2               |   |                          |         |
| Seminar on Health Information Science          | 2               |   |                          |         |
| Cognitive Neurology                            | 2               |   |                          |         |
| Seminar on Cognitive Neurology                 | 2               |   |                          |         |
| Supervised Individual Study                    | Health Sciences |   |                          | 10      |

# Master's Degree Program in Nursing

| Major Field of Study and Course Type |                          | Course  | Credit | Remarks   |
|--------------------------------------|--------------------------|---|--------|---|
| Nursing Science                      | Required Elective Course | Issues and Concepts in Nursing Administration                     | 2      | 1 The students in the Master's Degree Program of Nursing must select one major field of study from "Nursing Science", "Advanced Public Health Nursing", "Advanced Midwifery" and "Advanced Practice Nursing".   |
|                                      |                          | Seminar on Nursing Administration                                 | 2      |   |
|                                      |                          | Clinical Nursing Skills   | 2      |   |
|                                      |                          | Seminar on Clinical Nursing Skills                                | 2      |   |
|                                      |                          | Primary Care Nursing and Health System Management                 | 2      |   |
|                                      |                          | Seminar on Primary Care Nursing and Health System Management      | 2      |   |
|                                      |                          | Oncology Nursing  | 2      | 2 When you select "Nursing Science", your degree requires a minimum of 14 credits including a set of a Lecture (2 credits) and a Seminar (2 credits) from your major field of study (Nursing Science) in addition to "Supervised Individual Study in Nursing Science" (10 credits). |
|                                      |                          | Seminar on Oncology Nursing                                       | 2      |   |
|                                      |                          | Advanced Community Health Nursing                                 | 2      |   |
|                                      |                          | Seminar on Community Health Nursing                               | 2      |   |
|                                      |                          | Issues and Concepts in Nursing Education                          | 2      |   |
|                                      |                          | Seminar on Nursing Education                                      | 2      |   |
|                                      |                          | Gerontological Nursing  | 2      | 3 When you select "Advanced Public Health Nursing", your degree requires a minimum of 18 credits including 10 credits from the Required Courses and 8 credits from "Supervised Individual Study in Nursing Practice".   |
|                                      |                          | Seminar on Gerontological Nursing                                 | 2      |   |
|                                      |                          | Cognitive Nursing Science   | 2      |   |
|                                      |                          | Seminar on Cognitive Nursing Science                              | 2      |   |
|                                      |                          | Psychiatric, Neuroscientific and Mental Health Nursing            | 2      |   |
|                                      |                          | Seminar on Psychiatric, Neuroscientific and Mental Health Nursing | 2      |   |
|                                      |                          | Advanced maternal and child nursing for global health             | 2      | 4 When you select "Advanced Midwifery", your degree requires a minimum of 18 credits including 10 credits from the Required Courses and 8 credits from "Supervised Individual Study in Nursing Practice".   |
|                                      |                          | Seminar on maternal and child nursing for global health           | 2      |   |
|                                      |                          | Maternal and Child Nursing Science                                | 2      |   |
|                                      |                          | Seminar on Maternal and Child Nursing Science                     | 2      |   |
|                                      |                          | Preventive Nursing  | 2      |   |
|                                      |                          | Seminar on Preventive Nursing                                     | 2      |   |
|                                      |                          | Global Health Nursing   | 2      | 5 When you select "Advanced Practice Nursing", your degree requires a minimum of 20 credits   |
|                                      |                          | Seminar on Global Health Nursing                                  | 2      |   |
|                                      |                          | Advanced Nursing Informatics                                      | 2      |   |
|                                      |                          | Seminar on Nursing Informatics                                    | 2      |   |

| Major Field of Study<br>and Course Type |                 | Course   | Credit | Remarks  |
|---|-----------------|--|--------|--|
| Advanced Public Health Nursing          | Required Course | Advanced Public Health Nursing   | 2      | including 12 credits from the Required Courses and 8 credits from "Supervised Individual Study in Nursing Practice". |
|   |                 | Seminar on Public Health Nursing   | 2      |  |
|   |                 | Practicum for Public Health Nursing                                      | 6      |  |
|   | Elective Course | Principles of Public Health Nursing                                      | 2      |  |
|   |                 | Public Health Nursing Activities   | 2      |  |
|   |                 | Health Promotion for Community   | 2      |  |
|   |                 | Occupational Health Nursing  | 1      |  |
|   |                 | Health Risk Management   | 2      |  |
|   |                 | Health and Welfare Administration  | 2      |  |
|   |                 | Seminar on Public Health Nursing Activities I                            | 3      |  |
|   |                 | Seminar on Public Health Nursing Activities II                           | 2      |  |
|   |                 | Public Health Nursing Management   | 2      |  |
|   |                 | Seminar on Public Health Nursing Epidemiology                            | 2      |  |
|   |                 | Social Security and Health Policy  | 2      |  |
|   |                 | Public Health Nursing Practice I   | 2      |  |
|   |                 | Public Health Nursing Practice II  | 2      |  |
|   |                 | Public Health Nursing Practice III                                       | 1      |  |
| Advanced Midwifery                      | Required Course | Advanced Midwifery   | 2      |  |
|   |                 | Seminar on Advanced Midwifery  | 2      |  |
|   |                 | Seminar on Clinical Practice in Midwifery                                | 6      |  |
|   | Elective Course | Advanced Women's Health  | 2      |  |
|   |                 | Advanced Reproductive Health   | 2      |  |
|   |                 | Advanced Midwifery in Human Relationship                                 | 2      |  |
|   |                 | Advanced Diagnostic Methodology and Applied Technology in Midwifery      | 4      |  |
|   |                 | Seminar on Diagnostic Methodology and Applied Technology in Midwifery I  | 2      |  |
|   |                 | Seminar on Diagnostic Methodology and Applied Technology in Midwifery II | 2      |  |
|   |                 | Advanced Child Health Care   | 2      |  |
|   |                 | Advanced Midwifery on Maternal and Child for Global Health               | 2      |  |
|   |                 | Midwifery Management   | 2      |  |
|   |                 | Clinical Midwifery Practice I  | 7      |  |
|   |                 | Clinical Midwifery Practice II   | 2      |  |

| Major Field of Study<br>and Course Type |                    | Course                                       | Credit           | Remarks |    |
|---|--------------------|--|------------------|---------|----|
|   |                    | Clinical Midwifery Practice III              | 2                |         |    |
| Advanced Practice Nursing               | Required<br>Course | Oncology Nursing I                           | 2                |         |    |
|   |                    | Oncology Nursing II                          | 2                |         |    |
|   |                    | Advanced Seminar on Oncology<br>Nursing I    | 2                |         |    |
|   |                    | Advanced Seminar on Oncology<br>Nursing II   | 2                |         |    |
|   |                    | Seminar on Oncology Nursing I                | 2                |         |    |
|   |                    | Seminar on Oncology Nursing II               | 2                |         |    |
|   | Elective Course    | Advanced Lecture on Physical<br>Assessment   | 2                |         |    |
|   |                    | Advanced Lecture on Pathophysiology          | 2                |         |    |
|   |                    | Advanced Lecture on Clinical<br>Pharmacology | 2                |         |    |
|   |                    | Advanced Lecture on Consultation             | 2                |         |    |
|   |                    | Advanced Clinical Oncology                   | 2                |         |    |
|   |                    | Advanced Nursing Practice I                  | 2                |         |    |
|   |                    | Advanced Nursing Practice II                 | 3                |         |    |
|   |                    | Advanced Nursing Practice III                | 3                |         |    |
|   |                    | Advanced Nursing Practice IV                 | 2                |         |    |
|   | Supervised         |  | Nursing Science  |         | 10 |
|   | Individual Study   |  | Nursing Practice |         | 8  |

## Doctoral Degree Programs

### Division of Health Sciences Common Courses

| Major Field of Study and Course Type |  | Course                               | Credit | Remarks |
|--------------------------------------|--|--------------------------------------|--------|---------|
| Required Course                      |  | Advanced Study of Medical Management | 2      |         |

### Doctoral Degree Program in Health Sciences

| Major Field of Study and Course Type |                          | Course  | Credit | Remarks  |
|--------------------------------------|--------------------------|---|--------|--|
| Advanced Medical Sciences            | Required Elective Course | Advanced Study of Medical Imaging Science           | 2      | The students in the Doctoral Degree Program in Health Sciences must select one major field of study from "Advanced Medical Sciences" and "Comprehensive Health |
|                                      |                          | Advanced Seminar on Medical Imaging Science         | 2      |  |
|                                      |                          | Advanced Study of Biomedical Science and Technology | 2      |  |

| Major Field of Study and Course Type |                                | Course  | Credit | Remarks  |
|--------------------------------------|--------------------------------|---|--------|--|
| Comprehensive Health Sciences        |                                | Advanced Seminar on Biomedical Science and Technology | 2      | Sciences". The degree requires a minimum of 10 credits including a set of a Lecture (2 credits) and a Seminar (2 credits) under the same name (covering the same course topic) from their major field of study in addition to "Supervised Individual Research in Health Sciences" (6 credits). |
|                                      |                                | Advanced Study of Charged Particle Therapy            | 2      |  |
|                                      |                                | Advanced Seminar on Charged Particle Therapy          | 2      |  |
|                                      | Required Elective Course       | Advanced Study of Rehabilitation Science              | 2      |  |
|                                      |                                | Advanced Seminar on Rehabilitation Science            | 2      |  |
|                                      |                                | Advanced Study of Health Evaluation                   | 2      |  |
|                                      |                                | Advanced Seminar on Health Evaluation                 | 2      |  |
|                                      |                                | Advanced Study of Health Science Management           | 2      |  |
|                                      |                                | Advanced Seminar on Health Science Management         | 2      |  |
|                                      | Supervised Individual Research | Health Sciences                                       | 6      |  |

#### Doctoral Degree Program in Nursing Sciences

| Major Field of Study and Course Type |                                | Course   | Credit | Remarks   |
|--------------------------------------|--------------------------------|--|--------|---|
| Nursing Sciences                     | Required Elective Course       | Advanced Study of Fundamental Nursing Science          | 2      | The degree requires the students in the Doctoral Degree Program in Nursing to study a minimum of 10 credits including a set of a Lecture (2 credits) and a Seminar (2 credits) under the same name (covering the same course topic) from the Required Elective Courses in addition to "Supervised Individual Research in Nursing Sciences" (6 credits). |
|                                      |                                | Advanced Seminar on Fundamental Nursing Science        | 2      |   |
|                                      |                                | Advanced Study of Clinical Nursing Science             | 2      |   |
|                                      |                                | Advanced Seminar on Clinical Nursing Science           | 2      |   |
|                                      |                                | Advanced Study of Social Health and Nursing Science    | 2      |   |
|                                      |                                | Advanced Seminar on Social Health and Nursing Science  | 2      |   |
|                                      |                                | Advanced Study of Women's Health and Nursing Science   | 2      |   |
|                                      |                                | Advanced Seminar on Women's Health and Nursing Science | 2      |   |
|                                      | Supervised Individual Research | Nursing Sciences                                       | 6      |   |

# MASTER'S DEGREE PROGRAMS

### 1. Basic Requirements for Thesis

- 1) Students must demonstrate that they meet the level of academic achievement, competence and quality stipulated in the *Hokkaido University Postgraduate Degree Programs Degree Awarding Principles* and the *Graduate School of Health Sciences Diploma Policy* to be conferred a master's degree. Their theses must present the attainment of the said abilities in clear and plain language.
- 2) Master's degree candidates must be the sole author of their theses. Any part of a submitted thesis by a candidate must not have infringed on the originality and ideas of research papers published or research presentations made by persons other than the thesis candidate/author.
- 3) Master's theses must not infringe on copyright and the right of publicity of persons other than the thesis candidates/authors.
- 4) Master's theses must be written based on the research conducted while abiding by the *Code of Conduct for Scientists at Hokkaido University*.

### 2. Thesis structure

The structure of the thesis should meet the following requirements.

- 1) An adequate title is given to the thesis.
- 2) The thesis discusses the research background and clarifies the research purposes.
- 3) The thesis describes the research methods which align with the research purposes.
- 4) Research results are graphically and adequately presented using such as charts, graphs and diagrams.
- 5) Discussion is generated in accordance with the research results.
- 6) The thesis appropriately draws a conclusion which answers defined research purposes.
- 7) References are cited appropriately.
- 8) The thesis covers all necessary stages above and has them appropriately chaptered.

### 3. Thesis content

The content of the thesis will be reviewed with the following criteria in mind. It is however up to the examination committee to decide to which criterion they give more weight.

- 1) The committee finds a level of the academic value of the concerned discipline in the thesis.
- 2) Appropriate research topics and methods are employed.
- 3) The research has been conducted upon a solid literature search, fieldwork and preceding study.
- 4) Research data essential to the research topics and methods have been collected and processed.
- 5) The process of the research project is elaborated in detail.
- 6) The thesis provides in-depth analyses and detailed interpretation of data in the figures and tables.
- 7) The gist of the argument is clear while the coherent argument is presented.
- 8) Discussions are made in an appropriate style of writing leading to firm conclusions.

**Division of Health Sciences Common Foundation Courses**

| Major Field of Study                    | Course                                       | Eligible Year of Course | Number of Course Credit |                   |          |               | Class Format |         |                      | Remarks   |
|---|--|-------------------------|-------------------------|-------------------|----------|---------------|--------------|---------|----------------------|---|
|   |  |                         | Required                | Required Elective | Elective | Not Specified | Lecture      | Seminar | Experiment/practical |   |
| Common Foundation Courses               | Risk Management                              | 1 • 2                   | 1                       |                   |          |               | ○            |         |                      | Complete 8 credits or more including 1 or more credits from “Health Care Ethics” or “Nursing Ethics”, 1 credit of “Risk Management” and 2 credits from the research method courses (Experimental Methodology/Case Study Methods in Health Sciences/Methods of Qualitative Research/Research Strategies in Health Sciences/Methods of Nursing Research). |
|   | Health Care Ethics                           | 1 • 2                   |                         | 1                 |          |               | ○            |         |                      |   |
|   | Nursing Ethics                               | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |
|   | Experimental Methodology                     | 1                       |                         | 2                 |          |               | ○            |         |                      |   |
|   | Case Study Methods in Health Sciences        | 1                       |                         | 2                 |          |               | ○            |         |                      |   |
|   | Methods of Qualitative Research              | 1                       |                         | 2                 |          |               | ○            |         |                      |   |
|   | Research Strategies in Health Sciences       | 1                       |                         | 2                 |          |               | ○            |         |                      |   |
|   | Methodology in Nursing Research              | 1                       |                         | 2                 |          |               | ○            |         |                      |   |
|   | Statistical Practice for Healthcare Research | 1 • 2                   |                         |                   | 2        |               | ○            |         |                      |   |
|   | Advanced Laboratory Medicine                 | 1 • 2                   |                         |                   | 2        |               | ○            |         |                      |   |
|   | Oncology and Regenerative Medicine           | 1 • 2                   |                         |                   | 2        |               | ○            |         |                      |   |
|   | Functional Anatomy                           | 1                       |                         |                   | 2        |               | ○            |         |                      |   |
|   | Health Sciences                              | 1 • 2                   |                         |                   | 2        |               | ○            |         |                      |   |
|   | Sports and Physical Fitness Science          | 1 • 2                   |                         |                   | 2        |               | ○            |         |                      |   |
|   | Physiological Functions of Foods             | 1 • 2                   |                         |                   | 2        |               | ○            |         |                      |   |
|   | Nutraceutical Pharmacodynamics               | 1 • 2                   |                         |                   | 2        |               | ○            |         |                      |   |
|   | Team Approach to Health Care                 | 1 • 2                   |                         |                   | 2        |               | ○            |         |                      |   |
| Total available credits from 17 courses |  | —                       | 1                       | 13                | 18       | 0             | —            |         |                      |   |



## Master's Degree Program in Health Sciences

| Major Field of Study               | Course  | Eligible Year of Course | Number of Course Credit |                   |          |               | Class Format |         |                      | Remarks  |
|------------------------------------|---|-------------------------|-------------------------|-------------------|----------|---------------|--------------|---------|----------------------|--|
|                                    |   |                         | Required                | Required Elective | Elective | Not Specified | Lecture      | Seminar | Experiment/practical |  |
| Biomedical Science and Engineering | Advanced Lecture on Medical Physics and Biomedical Engineering  | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      | Select one of the "Major Field of Study". Complete 2 credits or more from "Lecture" courses as well as 2 credits or more from "Seminar" courses. |
|                                    | Quantum Life Medical Science  | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Quantum Life Medical Science   | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Advanced Lecture on Diagnostic Imaging  | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Diagnostic Imaging   | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Clinical Imaging Technology   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Clinical Imaging Technology  | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Total available credits from 7 courses  | —                       | 0                       | 14                | 0        | 0             |              | —       |                      |  |
| Medical Laboratory Science         | Comprehensive Assessment of Cardiovascular Function   | 1                       |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Comprehensive Assessment of Cardiovascular Function  | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Blood Regulation and Regeneration   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Blood Regulation and Regeneration  | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Analytical Chemistry for Metabolic Research   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Analytical Chemistry for Metabolic Research  | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Advanced Lecture on Infection and Stress Response   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Infection and Stress Response  | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Immunopathogenesis  | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Immunopathogenesis   | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Total available credits from 10 courses   | —                       | 0                       | 20                | 0        | 0             |              | —       |                      |  |
| Rehabilitation Science             | Motor Control   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Motor Control  | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Management of Musculoskeletal System Disorders  | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Management of Musculoskeletal System Disorders   | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Occupational Adaptation for Developmental Disabilities and Neuropsychological Disabilities            | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Occupational Adaptation for Developmental Disabilities and Neuropsychological Disabilities | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Biomedical System Control Science   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Biomedical System Control Science Seminar   | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Rehabilitation for Patients with Mental Disorder  | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Rehabilitation for Patients with Mental Disorders  | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Fundamental Research for Functional Biology   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Fundamental Research for Functional Biology  | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Advanced Sports Physical Therapy  | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Sports Physical Therapy Seminar   | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Total available credits from 14 courses   | —                       | 0                       | 28                | 0        | 0             |              | —       |                      |  |
| Health Research Studies            | Environmental Health Sciences   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Exercise on Environmental Health Sciences   | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Human Ecology   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Human Ecology  | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Advanced Metrology of Functional Information  | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Metrology of Functional Information  | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Health Information Science  | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Health Information Science   | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Cognitive Neurology   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |  |
|                                    | Seminar on Cognitive Neurology  | 1                       |                         | 2                 |          |               |              | ○       |                      |  |
|                                    | Total available credits from 10 courses   | —                       | 0                       | 20                | 0        | 0             |              | —       |                      |  |
| Supervised Individual Study        | Health Sciences   | 1 • 2                   | 10                      |                   |          |               |              | ○       |                      | Complete the "Supervised individual study in Health Sciences" course if you are in the Master's Degree Program in Health Sciences.               |
|                                    | Total available credits from 1 course   | —                       | 10                      | 0                 | 0        | 0             |              | —       |                      |  |

## Master's Degree Program in Nursing

| Major Field of Study           | Course  | Eligible Year of Course | Number of Course Credit |                   |          |               | Class Format |         |                      | Remarks   |  |
|--------------------------------|---|-------------------------|-------------------------|-------------------|----------|---------------|--------------|---------|----------------------|---|--|
|                                |   |                         | Required                | Required Elective | Elective | Not Specified | Lecture      | Seminar | Experiment/practical |   |  |
| Nursing Science                | Issues and Concepts in Nursing Administration                     | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      | Students whose Major Field of Study is Nursing Science should complete 2 credits or more from "Lecture" courses as well as 2 credits or more from "Seminar" courses.<br><br>**"Oncology Nursing" and "Seminar on Oncology Nursing" shall be replaced with "Oncology Nursing II" and "Seminar on Oncology Nursing II" respectively for the students whose Major Field of Study is Advanced Practice Nursing. |  |
|                                | Seminar on Nursing Administration                                 | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Clinical Nursing Skills   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |  |
|                                | Seminar on Clinical Nursing Skills                                | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Primary Care Nursing and Health System Management                 | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |  |
|                                | Seminar on Primary Care Nursing and Health System Management      | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Oncology Nursing*   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |  |
|                                | Seminar on Oncology Nursing*                                      | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Advanced Community Health Nursing                                 | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |  |
|                                | Seminar on Community Health Nursing                               | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Issues and Concepts in Nursing Education                          | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |  |
|                                | Seminar on Nursing Education                                      | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Gerontological Nursing  | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |  |
|                                | Seminar on Gerontological Nursing                                 | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Cognitive Nursing Science   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |  |
|                                | Seminar on Cognitive Nursing Science                              | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Psychiatric, Neuroscientific and Mental Health Nursing            | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |  |
|                                | Seminar on Psychiatric, Neuroscientific and Mental Health Nursing | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Advanced maternal and child nursing for global health             | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |  |
|                                | Seminar on Maternal and Child Nursing for Global Health           | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Maternal and Child Nursing Science                                | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |  |
|                                | Seminar on Maternal and Child Nursing Science                     | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Preventive Nursing  | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |  |
|                                | Seminar on Preventive Nursing                                     | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Global Health Nursing   | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |  |
|                                | Seminar on Global Health Nursing                                  | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Advanced Nursing Informatics                                      | 1 • 2                   |                         | 2                 |          |               | ○            |         |                      |   |  |
|                                | Seminar on Nursing Informatics                                    | 1                       |                         | 2                 |          |               |              | ○       |                      |   |  |
|                                | Total available credits from 28 courses                           |                         | —                       | 0                 | 56       | 0             | 0            | —       |                      |   |  |
| Supervised Individual Study    | Nursing Science   | 1 • 2                   | 10                      |                   |          |               |              | ○       |                      | Complete the "Supervised individual study in Nursing Science" course if your Major Field of Study is Nursing Science.   |  |
|                                | Total available credits from 1 course                             |                         | —                       | 10                | 0        | 0             | —            |         |                      |   |  |
| Advanced Public Health Nursing | Advanced Public Health Nursing                                    | 1                       | 2                       |                   |          |               | ○            |         |                      | Complete the "Advanced Public Health Nursing", "Seminar on Public Health Nursing" and "Practicum for Public Health Nursing" courses if your Major Field of Study is Advanced Public Health Nursing.   |  |
|                                | Seminar on Public Health Nursing                                  | 1                       | 2                       |                   |          |               |              | ○       |                      |   |  |
|                                | Practicum for Public Health Nursing                               | 1 • 2                   | 6                       |                   |          |               |              | ○       |                      |   |  |
|                                | Principles of Public Health Nursing                               | 1                       |                         |                   | 2        |               | ○            |         |                      |   |  |
|                                | Public Health Nursing Activities                                  | 1                       |                         |                   | 2        |               | ○            |         |                      |   |  |
|                                | Health Promotion for Community                                    | 1                       |                         |                   | 2        |               | ○            |         |                      |   |  |
|                                | Occupational Health Nursing                                       | 1                       |                         |                   | 1        |               | ○            |         |                      |   |  |
|                                | Health Risk Management  | 1                       |                         |                   | 2        |               | ○            |         |                      |   |  |
|                                | Health and Welfare Administration                                 | 1                       |                         |                   | 2        |               | ○            |         |                      |   |  |
|                                | Seminar on Public Health Nursing Activities I                     | 1                       |                         |                   | 3        |               |              | ○       |                      |   |  |
|                                | Seminar on Public Health Nursing Activities II                    | 1                       |                         |                   | 2        |               |              | ○       |                      |   |  |
|                                | Public Health Nursing Management                                  | 2                       |                         |                   | 2        |               | ○            |         |                      |   |  |
|                                | Seminar on Public Health Nursing Epidemiology                     | 1                       |                         |                   | 2        |               |              | ○       |                      |   |  |
|                                | Social Security and Health Policy                                 | 2                       |                         |                   | 2        |               | ○            |         |                      |   |  |
|                                | Public Health Nursing Practice I                                  | 1                       |                         |                   | 2        |               |              |         | ○                    |   |  |
|                                | Public Health Nursing Practice II                                 | 1                       |                         |                   | 2        |               |              |         | ○                    |   |  |
|                                | Public Health Nursing Practice III                                | 2                       |                         |                   | 1        |               |              |         | ○                    |   |  |
|                                | Total available credits for 17 courses                            |                         | —                       | 10                | 0        | 27            | 0            | —       |                      |   |  |

| Major Field of Study                   | Course   | Eligible Year of Course | Number of Course Credit |                   |          |               | Class Format |         |                      | Remarks  |
|--|--|-------------------------|-------------------------|-------------------|----------|---------------|--------------|---------|----------------------|--|
|  |  |                         | Required                | Required Elective | Elective | Not Specified | Lecture      | Seminar | Experiment/practical |  |
| Advanced Midwifery                     | Advanced Midwifery   | 1                       | 2                       |                   |          |               | ○            |         |                      | Complete the “Advanced Midwifery”, “Seminar on Advanced Midwifery” and “Seminar on Clinical Practice in Midwifery” if your Major Field of Study is Advanced Midwifery.                       |
|  | Seminar on Advanced Midwifery  | 1                       | 2                       |                   |          |               |              | ○       |                      |  |
|  | Seminar on Clinical Practice in Midwifery                                | 1 • 2                   | 6                       |                   |          |               |              | ○       |                      |  |
|  | Advanced Women's Health  | 1                       |                         |                   | 2        |               | ○            |         |                      |  |
|  | Advanced Reproductive Health   | 1                       |                         |                   | 2        |               | ○            |         |                      |  |
|  | Advanced Midwifery in Human Relationship                                 | 1                       |                         |                   | 2        |               | ○            |         |                      |  |
|  | Advanced Diagnostic Methodology and Applied Technology in Midwifery      | 1                       |                         |                   | 4        |               | ○            |         |                      |  |
|  | Seminar on Diagnostic Methodology and Applied Technology in Midwifery I  | 1                       |                         |                   | 2        |               |              | ○       |                      |  |
|  | Seminar on Diagnostic Methodology and Applied Technology in Midwifery II | 1                       |                         |                   | 2        |               |              | ○       |                      |  |
|  | Advanced Child Health Care   | 1                       |                         |                   | 2        |               | ○            |         |                      |  |
|  | Advanced Midwifery on Maternal and Child for Global Health               | 2                       |                         |                   | 2        |               | ○            |         |                      |  |
|  | Midwifery Management   | 1                       |                         |                   | 2        |               | ○            |         |                      |  |
|  | Clinical Midwifery Practice I  | 1                       |                         |                   | 7        |               |              |         | ○                    |  |
|  | Clinical Midwifery Practice II   | 2                       |                         |                   | 2        |               |              |         | ○                    |  |
|  | Clinical Midwifery Practice III  | 2                       |                         |                   | 2        |               |              |         | ○                    |  |
| Total available credits for 15 courses |  | —                       | 10                      | 0                 | 31       | 0             | —            |         |                      |  |
| Advanced Practice Nursing              | Oncology Nursing I   | 1                       | 2                       |                   |          |               | ○            |         |                      | Complete the “Oncology Nursing I&II”, “Advanced Seminar on Oncology Nursing I&II” and “Advanced Seminar on Oncology Nursing I&II” if your Major Field of Study is Advanced Practice Nursing. |
|  | Oncology Nursing II  | 1                       | 2                       |                   |          |               | ○            |         |                      |  |
|  | Advanced Seminar on Oncology Nursing I                                   | 1                       | 2                       |                   |          |               |              | ○       |                      |  |
|  | Advanced Seminar on Oncology Nursing II                                  | 1                       | 2                       |                   |          |               |              | ○       |                      |  |
|  | Seminar on Oncology Nursing I  | 1                       | 2                       |                   |          |               |              | ○       |                      |  |
|  | Seminar on Oncology Nursing II   | 1                       | 2                       |                   |          |               |              | ○       |                      |  |
|  | Advanced Lecture on Physical Assessment                                  | 1                       |                         |                   | 2        |               | ○            |         |                      |  |
|  | Advanced Lecture on Pathophysiology                                      | 1                       |                         |                   | 2        |               | ○            |         |                      |  |
|  | Advanced Lecture on Clinical Pharmacology                                | 1                       |                         |                   | 2        |               | ○            |         |                      |  |
|  | Advanced Lecture on Consultation   | 1                       |                         |                   | 2        |               | ○            |         |                      |  |
|  | Advanced Clinical Oncology   | 1                       |                         |                   | 2        |               | ○            |         |                      |  |
|  | Advanced Nursing Practice I  | 1                       |                         |                   | 2        |               |              |         | ○                    |  |
|  | Advanced Nursing Practice II   | 2                       |                         |                   | 3        |               |              |         | ○                    |  |
|  | Advanced Nursing Practice III  | 2                       |                         |                   | 3        |               |              |         | ○                    |  |
|  | Advanced Nursing Practice IV   | 2                       |                         |                   | 2        |               |              |         | ○                    |  |
| Total available credits for 15 courses |  | —                       | 12                      | 0                 | 20       | 0             | —            |         |                      |  |
| Supervised Individual Study            | Nursing Practice   | 2                       | 8                       |                   |          |               |              | ○       |                      | Complete the “Supervised individual study in Nursing Practice” if your Major Field of Study is either Advanced Public Health Nursing, Advanced Midwifery or Advanced Practice Nursing.       |
|  | Total available credits from 1 course                                    | —                       | 8                       | 0                 | 0        | 0             | —            |         |                      |  |

|                |  |  |   |
|----------------|--|--|---|
| Name of Degree |  | The degree of Master of Health Sciences<br>The degree of Master of Nursing |   |
|                |  |  | Semester and class hour duration  |
|                |  |  | Number of semesters per academic year                                     |
|                |  |  | 2 semesters   |
|                |  |  | Number of weeks per semester  |
|                |  |  | 15 weeks  |
|                |  |  | Class hour duration   |
|                |  |  | Lecture/seminar: 90 minutes<br>Experiment/practical training: 180 minutes |

| Courses and Credits Required for Completion and Enrollment Instructions  |                                    |           |  |                                    |           |
|--|------------------------------------|-----------|--|------------------------------------|-----------|
| Master's Degree Program in Health Sciences   |                                    |           |  |                                    |           |
|  |                                    | Credits   |  |                                    |           |
| Common Foundation Courses  | Required                           | 1         |  |                                    |           |
|  | One of the Ethics courses          | 1 or more |  |                                    |           |
|  | One of the Research Method courses | 2         |  |                                    |           |
|  | Elective                           | 4         |  |                                    |           |
|  | Subtotal                           | 8         |  |                                    |           |
| 1 Lecture and 1 Seminar offered for a selected Major Field of Study  |                                    | 4         |  |                                    |           |
| Supervised individual study in Health Sciences   |                                    | 10        |  |                                    |           |
| Common Foundation Courses and the courses offered in this and the other degree programs of the Division of Health Sciences; Postgraduate Common Courses ; or Courses offered in other graduate schools |                                    | 8         |  |                                    |           |
| Total Minimum Credits Required   |                                    | 30        |  |                                    |           |
| Master's Degree Program in Nursing   |                                    |           | Master's Degree Program in Nursing   |                                    |           |
| Major Field of Study – Nursing Science   |                                    | Credits   | Major Field of Study – Advanced Public Health Nursing  |                                    | Credits   |
| Common Foundation Courses  | Required                           | 1         | Common Foundation Courses  | Required                           | 1         |
|  | One of the Ethics courses          | 1 or more |  | One of the Ethics courses          | 1 or more |
|  | One of the Research Method courses | 2         |  | One of the Research Method courses | 2         |
|  | Elective                           | 4         |  | Elective                           | 4         |
|  | Subtotal                           | 8         |  | Subtotal                           | 8         |
| 1 Lecture and 1 Seminar offered for Nursing Science  |                                    | 4         | Advanced Public Health Nursing & Seminar on Public Health Nursing<br>Practicum for Public Health Nursing   |                                    | 10        |
| Supervised individual study in Nursing Science   |                                    | 10        | Supervised individual study in Nursing Practice  |                                    | 8         |
| Common Foundation Courses and the courses offered in this and the other degree programs of the Division of Health Sciences; Postgraduate Common Courses ; or Courses offered in other graduate schools |                                    | 8         | Common Foundation Courses and the courses offered in this and the other degree programs of the Division of Health Sciences; Postgraduate Common Courses ; or Courses offered in other graduate schools |                                    | 10        |
| Total Minimum Credits Required   |                                    | 30        | Total Minimum Credits Required   |                                    | 36        |
| Master's Degree Program in Nursing   |                                    |           | Master's Degree Program in Nursing   |                                    |           |
| Major Field of Study – Advanced Midwifery  |                                    | Credits   | Major Field of Study – Advanced Practice Nursing   |                                    | Credits   |
| Common Foundation Courses  | Required                           | 1         | Common Foundation Courses  | Required                           | 1         |
|  | One of the Ethics courses          | 1 or more |  | One of the Ethics courses          | 1 or more |
|  | One of the Research Method courses | 2         |  | One of the Research Method courses | 2         |
|  | Elective                           | 4         |  | Elective                           | 4         |
|  | Subtotal                           | 8         |  | Subtotal                           | 8         |
| Advanced Midwifery & Seminar on Advanced Seminar on Clinical Practice in Midwifery   |                                    | 10        | Oncology Nursing I&II and Seminar on Oncology Advanced Seminar on Oncology Nursing I&II  |                                    | 12        |
| Supervised individual study in Nursing Practice  |                                    | 8         | Supervised individual study in Nursing Practice  |                                    | 8         |
| Common Foundation Courses and the courses offered in this and the other degree programs of the Division of Health Sciences; Postgraduate Common Courses ; or Courses offered in other graduate schools |                                    | 10        | Common Foundation Courses and the courses offered in this and the other degree programs of the Division of Health Sciences; Postgraduate Common Courses ; or Courses offered in other graduate schools |                                    | 8         |
| Total Minimum Credits Required   |                                    | 36        | Total Minimum Credits Required   |                                    | 36        |

**[Prerequisite course completion for Public Health Nurse/Midwifery Licensure Examination]**

| Courses and Credits Required for Completion and Enrollment Instructions   |   |         |   |   |  |  |    |
|---|---|---------|---|---|--|--|----|
| Master's Degree Program in Nursing  |   |         | Master's Degree Program in Nursing  |   |  |  |    |
| Courses to complete before Public Health Nurse Licensure Examination  |   |         | Courses to complete before Midwifery Licensure Examination  |   |  |  |    |
| Major Field of Study – Advanced Public Health Nursing   |   | Credits | Major Field of Study – Advanced Midwifery   |   |  |  |    |
| Common Foundation Courses   | Risk Management   | 1       | Common Foundation Courses   | Risk Management   | 1  |  |    |
|   | Health Care Ethics  | 1       |   | Health Care Ethics  | 1  |  |    |
|   | Select one of the following:<br>Experimental Methodology, Case Study Methods in Health Sciences, Methods of Qualitative Research, Research Strategies in Health Sciences or Methodology in Nursing Research | 2       |   | Select one of the following:<br>Experimental Methodology, Case Study Methods in Health Sciences, Methods of Qualitative Research, Research Strategies in Health Sciences or Methodology in Nursing Research | 2  |  |    |
|   | 2 Common Foundation Courses other than the above and the courses indicated in footnote 1  | 4       |   | 2 Common Foundation Courses other than the above and the courses indicated in footnote 1  | 4  |  |    |
|   | Subtotal  | 8       |   | Subtotal  | 8  |  |    |
| Advanced Public Health Nursing & Seminar on Public Health Nursing   |   | 4       | Advanced Midwifery & Seminar on Advanced Midwifery  |   | 4  |  |    |
| Practicum for Public Health Nursing   |   | 6       | Seminar on Clinical Practice in Midwifery   |   | 6  |  |    |
| Supervised individual study in Nursing Practice   |   | 8       | Supervised individual study in Nursing Practice   |   | 8  |  |    |
| Courses Stipulated in Relevant Regulations (see footnote 2)<br>6 credits from:<br>Principles of Public Health Nursing<br>Social Security and Health Policy<br>Advanced Community Health Nursing<br>4 credits from:<br>Courses offered in “Major Field of Study - Nursing Science” and Common Foundation Courses (excl. the courses in footnote 1) |   | 10      | Courses Stipulated in Relevant Regulations (see footnote 2)<br>6 credits from:<br>Advanced Women's Health<br>Advanced Reproductive Health<br>Advanced Midwifery on Maternal and Child for Global Health<br>4 credits from:<br>Courses offered in “Major Field of Study - Nursing Science” and Common Foundation Courses (excl. the courses in footnote 1) |   | 10   |  |    |
| Courses Stipulated in Relevant Regulations  | The following 14 courses in “Major Field of Study - Advanced Public Health Nursing”   |         | Courses Stipulated in Relevant Regulations  | The following 12 courses in “Major Field of Study - Advanced Midwifery”   |  |  |    |
|   | Principles of Public Health Nursing (see footnote 2)  | 2       |   | Advanced Women’s Health (see footnote 2)  | 2  |  |    |
|   | Public Health Nursing Activities  | 2       |   | Advanced Reproductive Health (see footnote 2)   | 2  |  |    |
|   | Health Promotion for Community  | 2       |   | Advanced Midwifery in Human Relationship  | 2  |  |    |
|   | Occupational Health Nursing   | 1       |   | Advanced Diagnostic Methodology and Applied Technology in Midwifery   | 4  |  |    |
|   | Health Risk Management  | 2       |   | Seminar on Diagnostic Methodology and Applied Technology in Midwifery I   | 2  |  |    |
|   | Health and Welfare Administration   | 2       |   | Seminar on Diagnostic Methodology and Applied Technology in Midwifery II  | 2  |  |    |
|   | Seminar on Public Health Nursing Activities I   | 3       |   | Advanced Child Health Care  | 2  |  |    |
|   | Seminar on Public Health Nursing Activities II  | 2       |   | Advanced Midwifery on Maternal and Child for Global Health (see footnote 2)   | 2  |  |    |
|   | Public Health Nursing Management  | 2       |   | Midwifery Management  | 2  |  |    |
|   | Seminar on Public Health Nursing Epidemiology   | 2       |   | Clinical Midwifery Practice I   | 7  |  |    |
|   | Social Security and Health Policy (see footnote 2)  | 2       |   | Clinical Midwifery Practice II  | 2  |  |    |
|   | Public Health Nursing Practice I  | 2       |   | Clinical Midwifery Practice III   | 2  |  |    |
|   | Public Health Nursing Practice II   | 2       |   |   |  |  |    |
|   | Public Health Nursing Practice III  | 1       |   |   |  |  |    |
|   | Advanced Community Health Nursing (offered in “Major Field of Study - Nursing Science”, see footnote 2)   | 2       |   |   |  |  |    |
|   | “Health, Society and Environment - Community Health Activity” from the Postgraduate Common Courses (Inter-Graduate School Classes)  | 2       |   |   |  |  |    |
|   | Subtotal  | 25 (31) |   | Subtotal  | 25 (31)  |  |    |
|   | Total Minimum Credits Required for Program Completion and Determined Under Regulations  |         |   | 61  | Total Minimum Credits Required for Program Completion and Determined Under Regulations |  | 61 |

[1] Nursing Ethics, Hospital Financial Accounting, Hospital Management Strategy, Hospital Organization Management, Medical Marketing, Health Care Policy, Health Economics, Hospital Management Accounting, Collaboration Management on Industry-Government-Academia, Hospital Information Management A, Hospital Information Management B, Case Studies Exercise on Hospital Management A, Case Studies Exercise on Hospital Management B

[2] "Courses and Credits Required for Completion" includes Principles of Public Health Nursing, Social Security and Health Policy and Advanced Community Health Nursing. Hence the Subtotal of the "Courses Stipulated in Relevant Regulations" makes 25 credits after the 6 credits for the above three courses are subtracted from the sum credits of the "Courses Stipulated in Relevant Regulations". The number in the parentheses in the Subtotal row figures the sum credits.

[1] Nursing Ethics, Hospital Financial Accounting, Hospital Management Strategy, Hospital Organization Management, Medical Marketing, Health Care Policy, Health Economics, Hospital Management Accounting, Collaboration Management on Industry-Government-Academia, Hospital Information Management A, Hospital Information Management B, Case Studies Exercise on Hospital Management A, Case Studies Exercise on Hospital Management B

[2] "Courses and Credits Required for Completion" includes Advanced Women's Health, Advanced Reproductive Health and Advanced Midwifery on Maternal and Child for Global Health. Hence the Subtotal of the "Courses Stipulated in Relevant Regulations" makes 25 credits after the 6 credits for the above three courses are subtracted from the sum credits of the "Courses Stipulated in Relevant Regulations". The number in the parentheses in the Subtotal row figures the sum credits.

## [Prerequisite course completion for Clinical Nurse Specialist Examination]

| Courses and Credits Required for Completion and Enrollment Instructions             |   |  |   |
|---|---|--|---|
| Master's Degree Program in Nursing  |   |  |   |
| Courses to complete before Clinical Nurse Specialist Examination                    |   |  |   |
| Major Field of Study – Advanced Practice Nursing                                    |   | Credits  |   |
| Common Foundation Courses   | Required  | 1  |   |
|   | Select one of the following:<br>Health Care Ethics or Nursing Ethics  | 1 or more  |   |
|   | Select one of the following:<br>Experimental Methodology, Case Study Methods in Health Sciences, Methods of Qualitative Research, Research Strategies in Health Sciences or Methodology in Nursing Research | 2  |   |
|   | 2 Common Foundation Courses other than the above  | 4  |   |
|   | Subtotal  | 8  |   |
| Oncology Nursing I&II   |   | 4  |   |
| Advanced Seminar on Oncology Nursing I&II   |   | 4  |   |
| Seminar on Oncology Nursing I&II  |   | 4  |   |
| Supervised Individual Study in Nursing Practice                                     |   | 8  |   |
| Courses Stipulated by JANPU (Japan Association of Nursing Programs in Universities) | 11 out of the following 12 courses under the “Major Field of Study - Advanced Practice Nursing” are required.   |  |   |
|   | Issues and Concepts in Nursing Education  | Select 3 out of 4 courses<br>incl. these 3 courses<br>and "Nursing Ethics"<br>under the Common<br>Foundation Courses | 2 |
|   | Issues and Concepts in Nursing Administration   |  | 2 |
|   | Advanced Lecture on Consultation  |  | 2 |
|   | Advanced Lecture on Physical Assessment   |  | 2 |
|   | Advanced Lecture on Pathophysiology   |  | 2 |
|   | Advanced Lecture on Clinical Pharmacology   |  | 2 |
|   | Advanced Clinical Oncology  |  | 2 |
|   | Advanced Nursing Practice I   |  | 2 |
|   | Advanced Nursing Practice II  |  | 3 |
|   | Advanced Nursing Practice III   |  | 3 |
|   | Advanced Nursing Practice IV  |  | 2 |
| Subtotal  |   | 24   |   |
| Total   |   | 52   |   |
| Total Minimum Credits Required for the Clinical Nurse Specialist Examination        |   | 38   |   |

# Graduate School of Health Sciences Master's Degree Program Courses and Teaching Staff in Charge

\*Not offered in AY2023

As of April 1, 2023

| Degree Program                             | Major Field of Study               | Course  | Teaching Staff in Charge  | Credit | When Course is Offered (Year & Semester) |
|--|------------------------------------|---|---|--------|--|
| Common Foundation Courses                  |                                    | Risk Management   | OGASAWARA Katsuhiko   | 1      | Year1&2 Sem1                             |
|  |                                    | Health Care Ethics  | IWAMOTO Mikiko  | 1      | Year1&2 Sem1                             |
|  |                                    | Nursing Ethics  | IWAMOTO Mikiko, SUMI Naomi  | 2      | Year1&2 Sem1                             |
|  |                                    | Experimental Methodology  | IKEDA Atsuko, YOKOSAWA Koichi, ISHIZU Akihiro, MAEJIMA Hiroshi, CHIKENJI Takako, MIYAZAKI Taisuke, YAMAGUCHI Hiroyuki, SAKURAI Toshihiro, RAHEL MESFIN KETEMA | 2      | Year1 Full year                          |
|  |                                    | Case Study Methods in Health Sciences                           | EBINA Yasuhiko, SAWAMURA Daisuke  | 2      | Year1 Full year                          |
|  |                                    | Methods of Qualitative Research*                                | TBA   | 2      | Year1 Full year                          |
|  |                                    | Research Strategies in Health Sciences                          | YAMAUCHI Taro, SATOH Miho, TAKASHIMA Risa   | 2      | Year1 Full year                          |
|  |                                    | Methodology in Nursing Research                                 | SUMI Naomi, ITOH Yoichi, YANO Rika, TBA   | 2      | Year1 Full year                          |
|  |                                    | Statistical Practice for Healthcare Research                    | YOKOTA Isao   | 2      | Year1&2 Sem1                             |
|  |                                    | Advanced Laboratory Medicine                                    | YAMAGUCHI Hiroyuki, Shu-Ping HUI, OKUBO Torahiko, SHIMIZU Chikara, ITOH Takuya, TAMURA Shogo  | 2      | Year1&2 Sem1                             |
|  |                                    | Oncology and Regenerative Medicine                              | OZAKI Michitaka, KAMISHIMA Tamotsu, EBINA Yasuhiko  | 2      | Year1&2 Sem1                             |
|  |                                    | Functional Anatomy  | MIYAZAKI Taisuke  | 2      | Year1 Sem2                               |
|  |                                    | Health Sciences   | YAMAUCHI Taro, YOKOSAWA Koichi, OGASAWARA Katsuhiko, OTSUKI Mika, OZAKI Michitaka, IKEDA Atsuko   | 2      | Year1&2 Sem1                             |
|  |                                    | Sports and Physical Fitness Science                             | SAMUKAWA Mina, TAKIZAWA Kazuki  | 2      | Year1&2 Sem1                             |
|  |                                    | Physiological Functions of Foods*                               | TBA   | 2      | Year1&2 Sem1                             |
|  |                                    | Nutraceutical Pharmacodynamics*                                 | TBA   | 2      | Year1&2 Sem1                             |
| Master's Degree Program in Health Sciences | Biomedical Science and Engineering | Team Approach to Health Care                                    | SUMI Naomi, TBA   | 2      | Year1&2 Sem1                             |
|  |                                    | Advanced Lecture on Medical Physics and Biomedical Engineering* | TBA   | 2      | Year1&2 Sem1                             |
|  |                                    | Quantum Life Medical Science                                    | FUKUNAGA Hisanori   | 2      | Year1&2 Sem1                             |
|  |                                    | Seminar on Quantum Life Medical Science                         | FUKUNAGA Hisanori   | 2      | Year1 Sem2                               |
|  |                                    | Advanced Lecture on Diagnostic Imaging                          | KAMISHIMA Tamotsu   | 2      | Year1&2 Sem1                             |
|  |                                    | Seminar on Diagnostic Imaging                                   | KAMISHIMA Tamotsu   | 2      | Year1 Sem2                               |
|  | Medical Laboratory Science         | Clinical Imaging Technology                                     | SUGIMORI Hiroyuki   | 2      | Year1&2 Sem1                             |
|  |                                    | Seminar on Clinical Imaging Technology                          | SUGIMORI Hiroyuki   | 2      | Year1 Sem2                               |
|  |                                    | Comprehensive Assessment of Cardiovascular Function             | KAGA Sanae  | 2      | Year1 Sem1                               |
|  |                                    | Seminar on Comprehensive Assessment of Cardiovascular Function  | KAGA Sanae  | 2      | Year1 Sem2                               |
|  |                                    | Blood Regulation and Regeneration                               | TAMURA Shogo  | 2      | Year1&2 Sem1                             |
|  |                                    | Seminar on Blood Regulation and Regeneration                    | TAMURA Shogo  | 2      | Year1 Sem2                               |
|  |                                    | Analytical Chemistry for Metabolic Research                     | Shu-Ping HUI, Bomme GOWDA, Hsinjung HO, DIVYAVANI, CHEN YI FAN, SAKURAI Toshihiro   | 2      | Year1&2 Sem1                             |
|  |                                    | Seminar on Analytical Chemistry for Metabolic Research          | Shu-Ping HUI, Bomme GOWDA, Hsinjung HO, DIVYAVANI, CHEN YI FAN, SAKURAI Toshihiro   | 2      | Year1 Sem2                               |
|  |                                    | Advanced Lecture on Infection and Stress Response               | YAMAGUCHI Hiroyuki, OZAKI Michitaka   | 2      | Year1&2 Sem1                             |
|  |                                    | Seminar on Infection and Stress Response                        | YAMAGUCHI Hiroyuki, OZAKI Michitaka   | 2      | Year1 Sem2                               |
|  |                                    | Immunopathogenesis  | ISHIZU Akihiro, MASUDA Sakiko, NISHIBATA Yuka   | 2      | Year1&2 Sem1                             |
|  |                                    | Seminar on Immunopathogenesis                                   | ISHIZU Akihiro, MASUDA Sakiko, NISHIBATA Yuka   | 2      | Year1 Sem2                               |

| Degree Program                             | Major Field of Study    | Course  | Teaching Staff in Charge   | Credit | When Course is Offered (Year & Semester) |
|--|-------------------------|---|--|--------|--|
| Master's Degree Program in Health Sciences | Rehabilitation Science  | Motor Control   | MAEJIMA Hiroshi, HASEGAWA Naoya, TBA   | 2      | Year1&2 Sem1                             |
|  |                         | Seminar on Motor Control  | MAEJIMA Hiroshi, HASEGAWA Naoya, TBA   | 2      | Year1 Sem2                               |
|  |                         | Management of Musculoskeletal System Disorders  | TOHYAMA Harukazu, SAMUKAWA Mina, KASAHARA Satoshi, ISHIDA Tomoya   | 2      | Year1&2 Sem1                             |
|  |                         | Seminar on Management of Musculoskeletal System Disorders   | TOHYAMA Harukazu, SAMUKAWA Mina, KASAHARA Satoshi, ISHIDA Tomoya   | 2      | Year1 Sem2                               |
|  |                         | Occupational Adaptation for Developmental Disabilities and Neuropsychological Disabilities            | CHIKENJI Takako, SAWAMURA Daisuke, YOSHIDA Kazuki  | 2      | Year1&2 Sem1                             |
|  |                         | Seminar on Occupational Adaptation for Developmental Disabilities and Neuropsychological Disabilities | CHIKENJI Takako, SAWAMURA Daisuke, YOSHIDA Kazuki  | 2      | Year1 Sem2                               |
|  |                         | Biomedical System Control Science   | CHIKENJI Takako  | 2      | Year1&2 Sem1                             |
|  |                         | Biomedical System Control Science Seminar   | CHIKENJI Takako  | 2      | Year1 Sem2                               |
|  |                         | Rehabilitation for Patients with Mental Disorders*  | TBA  | 2      | Year1&2 Sem1                             |
|  |                         | Seminar on Rehabilitation for Patients with Mental Disorders*   | TBA  | 2      | Year1 Sem2                               |
|  |                         | Fundamental Research for Functional Biology   | MIYAZAKI Taisuke, SAWAMURA Daisuke, YOSHIDA Kazuki, TAKASHIMA Risa   | 2      | Year1&2 Sem1                             |
|  |                         | Seminar on Fundamental Research for Functional Biology  | MIYAZAKI Taisuke, SAWAMURA Daisuke, YOSHIDA Kazuki, TAKASHIMA Risa   | 2      | Year1 Sem2                               |
|  |                         | Advanced Sports Physical Therapy  | SAMUKAWA Mina  | 2      | Year1&2 Sem1                             |
|  |                         | Sports Physical Therapy Seminar   | SAMUKAWA Mina  | 2      | Year1 Sem2                               |
|  | Health Research Studies | Environmental Health Sciences   | IKEDA Atsuko   | 2      | Year1&2 Sem1                             |
|  |                         | Exercise on Environmental Health Sciences   | IKEDA Atsuko   | 2      | Year1 Sem2                               |
|  |                         | Human Ecology   | YAMAUCHI Taro  | 2      | Year1&2 Sem1                             |
|  |                         | Seminar on Human Ecology  | YAMAUCHI Taro  | 2      | Year1 Sem2                               |
|  |                         | Advanced Metrology of Functional Information  | YOKOSAWA Koichi  | 2      | Year1&2 Sem1                             |
|  |                         | Seminar on Metrology of Functional Information  | YOKOSAWA Koichi  | 2      | Year1 Sem2                               |
|  |                         | Health Information Science  | OGASAWARA Katsuhiko  | 2      | Year1&2 Sem1                             |
|  |                         | Seminar on Health Information Science   | OGASAWARA Katsuhiko  | 2      | Year1 Sem2                               |
|  |                         | Cognitive Neurology   | OTSUKI Mika  | 2      | Year1&2 Sem1                             |
|  |                         | Seminar on Cognitive Neurology  | OTSUKI Mika  | 2      | Year1 Sem2                               |
|  |                         | Supervised Individual Study in Health Sciences  | KAMISHIMA Tamotsu, YAMAGUCHI Hiroyuki, ISHIZU Akihiro, Shu-Ping HUI, OZAKI Michitaka, TOHYAMA Harukazu, MAEJIMA Hiroshi, CHIKENJI Takako, YOKOSAWA Koichi, OGASAWARA Katsuhiko, YAMAUCHI Taro, IKEDA Atsuko, SUGIMORI Hiroyuki, TAKASHIMA Hiroyuki, FUKUNAGA Hisanori, KAGA Sanae, SAKURAI Toshihiro, TAMURA Shogo, SAMUKAWA Mina, MIYAZAKI Taisuke, HASEGAWA Naoya, OTSUKI Mika, MATSUYA Yusuke, OKUBO Torahiko, MASUDA Sakiko, SAWAMURA Daisuke, YOSHIDA Kazuki, TAKASHIMA Risa, Hsinjung HO, TSUTSUMI Kaori, MURAYAMA Michito, KASAHARA Satoshi, ISHIDA Tomoya, MIYAJIMA Maki, KOSHINO Yuta, YOSHIMURA Takaaki, DIVYAVANI | 10     | Year1&2 Full Year                        |



| Degree Program                     | Major Field of Study           | Course  | Teaching Staff in Charge   | Credit | When Course is Offered (Year & Semester) |
|------------------------------------|--------------------------------|---|--|--------|--|
| Master's Degree Program in Nursing | Nursing Science                | Issues and Concepts in Nursing Administration                     | IWAMOTO Mikiko, TANAKA Izumi   | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on Nursing Administration                                 | IWAMOTO Mikiko   | 2      | Year1 Sem2                               |
|                                    |                                | Clinical Nursing Skills   | YANO Rika  | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on Clinical Nursing Skills                                | YANO Rika  | 2      | Year1 Sem2                               |
|                                    |                                | Primary Care Nursing and Health System Management                 | SUMI Naomi, SATOH Miho   | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on Primary Care Nursing and Health System Management      | SUMI Naomi, SATOH Miho   | 2      | Year1 Sem2                               |
|                                    |                                | Oncology Nursing  | SUMI Naomi, TBA  | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on Oncology Nursing                                       | SUMI Naomi, TBA  | 2      | Year1 Sem2                               |
|                                    |                                | Advanced Community Health Nursing                                 | TADAKA Etsuko, HIRANO Michiyo, TBA   | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on Community Health Nursing                               | TADAKA Etsuko, HIRANO Michiyo  | 2      | Year1 Sem2                               |
|                                    |                                | Issues and Concepts in Nursing Education                          | YANO Rika  | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on Nursing Education                                      | YANO Rika  | 2      | Year1 Sem2                               |
|                                    |                                | Gerontological Nursing  | YUKI Michiko   | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on Gerontological Nursing                                 | YUKI Michiko   | 2      | Year1 Sem2                               |
|                                    |                                | Cognitive Nursing Science   | OTSUKI Mika, YUKI Michiko  | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on Cognitive Nursing Science                              | OTSUKI Mika, YUKI Michiko  | 2      | Year1 Sem2                               |
|                                    |                                | Psychiatric, Neuroscientific and Mental Health Nursing            | MIYAJIMA Naoko   | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on Psychiatric, Neuroscientific and Mental Health Nursing | MIYAJIMA Naoko   | 2      | Year1 Sem2                               |
|                                    |                                | Advanced maternal and child nursing for global health             | KONDO Yoshiko, NOGUCHI Makiko, EBINA Yasuhiko  | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on maternal and child nursing for global health           | KONDO Yoshiko, NOGUCHI Makiko, FUJITA Wakako, EBINA Yasuhiko                           | 2      | Year1 Sem2                               |
|                                    |                                | Maternal and Child Nursing Science                                | MATSUZAWA Akemi, EBINA Yasuhiko  | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on Maternal and Child Nursing Science                     | MATSUZAWA Akemi, EBINA Yasuhiko  | 2      | Year1 Sem2                               |
|                                    |                                | Preventive Nursing  | IKEDA Atsuko   | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on Preventive Nursing                                     | IKEDA Atsuko   | 2      | Year1 Sem2                               |
|                                    |                                | Global Health Nursing   | YAMAUCHI Taro  | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on Global Health Nursing                                  | YAMAUCHI Taro  | 2      | Year1 Sem2                               |
|                                    |                                | Advanced Nursing Informatics                                      | OGASAWARA Katsuhiko  | 2      | Year1&2 Sem1                             |
|                                    |                                | Seminar on Nursing Informatics                                    | OGASAWARA Katsuhiko  | 2      | Year1 Sem2                               |
|                                    | Advanced Public Health Nursing | Advanced Public Health Nursing                                    | TADAKA Etsuko, HIRANO Michiyo  | 2      | Year1 Sem1                               |
|                                    |                                | Seminar on Public Health Nursing                                  | TADAKA Etsuko, HIRANO Michiyo, TBA   | 2      | Year1 Sem2                               |
|                                    |                                | Practicum for Public Health Nursing                               | TADAKA Etsuko, HIRANO Michiyo, TBA   | 6      | Year1 Sem2, Year2 Sem1                   |
|                                    |                                | Principles of Public Health Nursing                               | TADAKA Etsuko, NAGATA Rie  | 2      | Year1 Sem1                               |
|                                    |                                | Public Health Nursing Activities                                  | HIRANO Michiyo, TAKASHIMA Risa, ONODERA Sayaka, TAKAHASHI Mitsu                        | 2      | Year1 Sem1                               |
|                                    |                                | Health Promotion for Individual and Family                        | HIRANO Michiyo, ONODERA Sayaka   |        | Year1 Sem1                               |
|                                    |                                | Health Promotion for Community                                    | HIRANO Michiyo   | 2      | Year1 Sem1                               |
|                                    |                                | Occupational Health Nursing                                       | TADAKA Etsuko, FUKUNAGA Hisanori, MIYAZAKI Yumiko, TBA                                 | 1      | Year1 Full Year                          |
|                                    |                                | Health Risk Management  | HIRANO Michiyo, YAMAGUCHI Ryo, FURUSAWA Wataru, MORI, TERADA Kensaku, WAKAYAMA Yoshimi | 2      | Year1 Sem2                               |
|                                    |                                | Health and Welfare Administration                                 | TADAKA Etsuko, TANAKA Kenichi, MAKI Yasuhiro   | 2      | Year1 Full Year                          |
|                                    |                                | Seminar on Public Health Nursing Activities I                     | HIRANO Michiyo, TBA, MIYAJIMA Maki, KONDO Yoshiko, OZAWA Ryoko, TAKAHASHI Mitsu        | 3      | Year1 Sem1                               |
|                                    |                                | Seminar on Public Health Nursing Activities II                    | HIRANO Michiyo, TBA  | 2      | Year1 Sem2                               |
|                                    |                                | Public Health Nursing Management                                  | TADAKA Etsuko, ISHIKAWA Tamami, ABE Ieko, MIYASHITA Tsunemi                            | 2      | Year2 Sem1                               |
|                                    |                                | Seminar on Public Health Nursing Epidemiology                     | TADAKA Etsuko, IKEDA Atsuko, TBA   | 2      | Year1 Sem1                               |
|                                    |                                | Social Security and Health Policy                                 | HIRANO Michiyo, TANAKA Kenichi, KAWAKUBO Hiroshi, ISHI Yasuhiko, NOMURA Yoko, TBA      | 2      | Year2 Sem2                               |
|                                    |                                | Health and Welfare Public Policy                                  | HIRANO Michiyo, KAWAKUBO Hiroshi, NAKAZONO Kazutaka, TBA, ISHII, NOMURA Yoko           |        | Year2 Sem2                               |
|                                    |                                | Public Health Nursing Practice I                                  | HIRANO Michiyo, TBA, TADAKA Etsuko   | 2      | Year1 Sem2                               |
|                                    |                                | Public Health Nursing Practice II                                 | HIRANO Michiyo, TBA, TADAKA Etsuko   | 2      | Year1 Sem2                               |
|                                    |                                | Public Health Nursing Practice III                                | HIRANO Michiyo, TBA, TADAKA Etsuko   | 1      | Year2 Sem1                               |

| Degree Program                     | Major Field of Study                            | Course   | Teaching Staff in Charge  | Credit | When Course is Offered (Year & Semester) |
|------------------------------------|---|--|---|--------|--|
| Master's Degree Program in Nursing | Advanced Midwifery                              | Advanced Midwifery   | KONDO Yoshiko   | 2      | Year1 Sem1                               |
|                                    |   | Seminar on Advanced Midwifery  | KONDO Yoshiko   | 2      | Year1 Sem2                               |
|                                    |   | Seminar on Clinical Practice in Midwifery                                | EBINA Yasuhiko, KONDO Yoshiko   | 6      | Year1 Sem2, Year2 Sem1                   |
|                                    |   | Advanced Women's Health  | EBINA Yasuhiko  | 2      | Year1 Sem1                               |
|                                    |   | Advanced Reproductive Health   | KONDO Yoshiko   | 2      | Year1 Sem1                               |
|                                    |   | Advanced Midwifery in Human Relationship                                 | KONDO Yoshiko, MIYAJIMA Naoko   | 2      | Year1 Sem2                               |
|                                    |   | Advanced Diagnostic Methodology and Applied Technology in Midwifery      | EBINA Yasuhiko  | 4      | Year1 Sem1                               |
|                                    |   | Seminar on Diagnostic Methodology and Applied Technology in Midwifery I  | KONDO Yoshiko, YOSHIDA Michiko, TBA   | 2      | Year1 Sem1                               |
|                                    |   | Seminar on Diagnostic Methodology and Applied Technology in Midwifery II | KONDO Yoshiko, YOSHIDA Michiko, TBA   | 2      | Year1 Sem1                               |
|                                    |   | Advanced Child Health Care   | KONDO Yoshiko, CHO Kazutoshi, KURODA Noriko   | 2      | Year1 Sem2                               |
|                                    |   | Advanced Midwifery on Maternal and Child for Global Health               | KONDO Yoshiko, ISHIBASHI Noriko   | 2      | Year2 Sem1                               |
|                                    |   | Midwifery Management   | KONDO Yoshiko   | 2      | Year1 Sem2                               |
|                                    |   | Clinical Midwifery Practice I  | KONDO Yoshiko, YOSHIDA Michiko, TBA   | 7      | Year1 Sem2                               |
|                                    |   | Clinical Midwifery Practice II   | KONDO Yoshiko, YOSHIDA Michiko, TBA   | 2      | Year2 Sem1                               |
|                                    |   | Clinical Midwifery Practice III  | KONDO Yoshiko, YOSHIDA Michiko, TBA   | 2      | Year2 Sem1                               |
|                                    | Advanced Practice Nursing                       | Oncology Nursing I   | SUMI Naomi, TBA   | 2      | Year1 Sem1                               |
|                                    |   | Oncology Nursing II  | SUMI Naomi, HIRAYAMA Saori, BUKAWA Reiko, TBA   | 2      | Year1 Sem1                               |
|                                    |   | Advanced Seminar on Oncology Nursing I                                   | SUMI Naomi, TSURUGA Kenkichi, TAMAKI Tomohiro, UEMURA Keiichi, ONO Satoko   | 2      | Year1 Sem2                               |
|                                    |   | Advanced Seminar on Oncology Nursing II                                  | SUMI Naomi, HIRAYAMA Saori, BUKAWA Reiko, ONO Satoko  | 2      | Year1 Sem2                               |
|                                    |   | Seminar on Oncology Nursing I  | SUMI Naomi, UTSUMI Akemi, MAENO Hiroshi, TAMAKI Tomohiro, TSURUGA Kenkichi  | 2      | Year1 Sem2                               |
|                                    |   | Seminar on Oncology Nursing II   | SUMI Naomi, HIRAYAMA Saori, TBA   | 2      | Year1 Sem2                               |
|                                    |   | Advanced Lecture on Physical Assessment                                  | IWAMOTO Mikiko, SUMI Naomi, TBA   | 2      | Year1 Sem1                               |
|                                    |   | Advanced Lecture on Pathophysiology                                      | OZAKI Michitaka, OTSUKI Mika, SUMI Naomi, EBINA Yasuhiko  | 2      | Year1 Sem1                               |
|                                    |   | Advanced Lecture on Clinical Pharmacology                                | ISEKI Ken, SUMI Naomi   | 2      | Year1 Sem1                               |
|                                    |   | Advanced Lecture on Consultation   | SUMI Naomi, YOSHIDA Satomi, HIRAYAMA Saori, YAGI Kozue, ISHIOKA Akiko, BUKAWA Reiko   | 2      | Year1 Sem1                               |
|                                    |   | Advanced Clinical Oncology   | OZAKI Michitaka, HIRANO Satoshi, TESHIMA Takanori, KINOSHITA Ichiro, KINOSHITA Rumiko, UEMURA Keiichi, SUMI Naomi   | 2      | Year1 Sem1                               |
|                                    |   | Advanced Nursing Practice I  | SUMI Naomi, TBA   | 2      | Year1 Sem2                               |
|                                    |   | Advanced Nursing Practice II   | SUMI Naomi, TBA   | 3      | Year2 Sem1                               |
|                                    |   | Advanced Nursing Practice III  | SUMI Naomi, TBA   | 3      | Year2 Sem1                               |
|                                    |   | Advanced Nursing Practice IV   | SUMI Naomi, TBA   | 2      | Year2 Sem1                               |
|                                    | Supervised Individual Study in Nursing Science  |  | EBINA Yasuhiko, OZAKI Michitaka, YUKI Michiko, YANO Rika, SUMI Naomi, TADAKA Etsuko, OGASAWARA Katsuhiko, YAMAUCHI Taro, IKEDA Atsuko, MIYAJIMA Naoko, OTSUKI Mika, IWAMOTO Mikiko, SATOH Miho, HIRANO Michiyo, KONDO Yoshiko, MATSUZAWA Akemi, COLLEY Noriyo | 10     | Year1&2 Full Year                        |
|                                    | Supervised Individual Study in Nursing Practice |  | EBINA Yasuhiko, YUKI Michiko, YANO Rika, SUMI Naomi, TADAKA Etsuko, MIYAJIMA Naoko, IWAMOTO Mikiko, SATOH Miho, HIRANO Michiyo, KONDO Yoshiko, MATSUZAWA Akemi, COLLEY Noriyo   | 8      | Year2 Full Year                          |

Note: Course names and teaching staff members are subject to change.

# Graduate School of Health Sciences Division of Health Sciences

## Master's Program Supervising Faculty

As of April 1, 2023

| Degree Program                            | Major Field of Study (Education and Research Field) | Faculty Name and Email   | Major Research Topics   |
|---|---|--|---|
| Master's Degree Program in Health Science | Biomedical Science & Engineering                    | Professor<br>Tamotsu Kamishima<br>ktamotamo2@hs.hokudai.ac.jp                    | 1) Research on automatic detection of joint space narrowing using radiography<br>2) Research on quantitative evaluation of inflammatory joint disease activity using ultrasound and MR images<br>3) Research on the quantification of osteoporosis  |
|   |   | Associate Professor<br>Hiroyuki Sugimori<br>sugimori@hs.hokudai.ac.jp            | 1) Development of deep learning-based diagnostic assistance programs<br>2) Development of quantitative image processing algorithms for medical images<br>3) Medical image analysis with computer vision and programming   |
|   |   | Associate Professor<br>Hiroyuki Takashima<br>hirotakashima@pop.med.hokudai.ac.jp | 1) Quantitative image analysis for various disorders<br>2) Study for metabolism of muscle and bone with aging and inflammation<br>3) Development of image analysis for musculoskeletal disorders  |
|   |   | Associate Professor<br>Hisanori Fukunaga<br>hisanori.fukunaga@hs.hokudai.ac.jp   | 1) Elucidation of tissue-sparing effect following spatially fractionated radiation and its application for radiotherapy<br>2) Biochemical analysis on interactions between biomolecules damaged by radiation  |
|   | Medical Laboratory Science                          | Professor<br>Hiroyuki Yamaguchi<br>hiroyuki@med.hokudai.ac.jp                    | 1) Persistent infection of intercellular pathogens and its molecular basis<br>2) Adaptive strategy of human pathogens for their surviving in natural environments<br>3) Analysis of symbiosis among microbes focused on an interaction of unculturable bacteria with amoebae  |
|   |   | Professor<br>Akihiro Ishizu<br>aishizu@med.hokudai.ac.jp                         | 1) Pathology and pathogenesis of vasculitis<br>2) Biophylaxis and its disorders<br>3) Analysis of immune cell function  |
|   |   | Professor<br>Shu-Ping Hui<br>keino@hs.hokudai.ac.jp                              | 1) Research on plasma lipoproteins and bioactive lipids<br>2) Research on dyslipidemia such as ectopic lipid storage disease<br>3) Research on oxidative stress response and regulation of mitochondrial function<br>4) Research and development of functional foods and elucidation of mechanism of action   |
|   |   | Professor<br>Michitaka Ozaki<br>ozaki-m@med.hokudai.ac.jp                        | 1) Analysis of molecular mechanism of biological stress, stress response and regulation<br>2) Liver physio-pathology and its systemic impact (a comprehensive study of cell/organ function and whole body conditions)<br>3) Spatio-temporal bio-analysis by non-invasive visualization and monitoring of molecular function / cellular atmosphere and, its clinical application |

| Degree Program | Major Field of Study (Education and Research Field) | Faculty Name and Email  | Major Research Topics   |
|----------------|---|---|---|
|                |   | Associate Professor<br>Sanae Kaga<br>sanae@med.hokudai.ac.jp          | 1) Assessment of cardiovascular diseases using ultrasonography<br>2) Assessment of age-related changes in cardiac shape and function<br>3) Study of method for standardization and accuracy control of ultrasonographic examination   |
|                |   | Associate Professor<br>Toshihiro Sakurai<br>sakura@hs.hokudai.ac.jp   | 1) Plasma lipid and lipoprotein metabolism<br>2) Development of clinical examination and analytical methods<br>3) Functional food chemistry for health  |
|                |   | Associate Professor<br>Shogo Tamura<br>stamura@hs.hokudai.ac.jp       | 1) Elucidation of the bone marrow hematopoietic microenvironment<br>2) Development of bone marrow organoids<br>3) Molecular pathophysiology of congenital blood coagulation disorders   |
|                | Rehabilitation Science                              | Professor<br>Harukazu Tohyama<br>tohyama@med.hokudai.ac.jp            | 1) Rehabilitation for musculoskeletal disorders<br>2) Athletic rehabilitation<br>3) Biology and biomechanics for tendon and ligament  |
|                |   | Professor<br>Hiroshi Maejima<br>maejima@hs.hokudai.ac.jp              | 1) Synaptic modification induced by exercise and motor learning<br>2) Neuromodulation for kinesiotherapy in disorder of the central nervous system<br>3) Health promotion and prevention of degenerative change in the elderly.   |
|                |   | Professor<br>Takako Chikenji<br>chikenji@pop.med.hokudai.ac.jp        | 1) Cell senescence in regeneration and inflammatory disease<br>2) Mesenchymal progenitors/stromal cells in inflammatory disease   |
|                |   | Associate Professor<br>Mina Samukawa<br>mina@hs.hokudai.ac.jp         | 1) Sports injury prevention<br>2) Effects of therapeutic exercises<br>3) Warm up effects  |
|                |   | Associate Professor<br>Taisuke Miyazaki<br>miyazaki@med.hokudai.ac.jp | 1) Molecular mechanism of neurotransmitter-specific contact between pre- and postsynapse<br>2) Molecular mechanism of excitatory and inhibitory network formation in the cerebellum<br>3) Zone-specific neuronal circuit in the cerebellar cortex   |
|                |   | Associate Professor<br>Naoya Hasegawa<br>n_hasegawa@hs.hokudai.ac.jp  | 1) Rehabilitation for movement disorders<br>2) Motor learning on postural control and Effects of sensory biofeedback training<br>3) Mechanism and Quantitative assessment of postural Control   |
|                | Health Research Studies                             | Professor<br>Koichi Yokosawa<br>yokosawa@med.hokudai.ac.jp            | 1) Non-invasive measurements and imaging of human brain functions (e.g., communication, memory, music perception)<br>2) Research on evaluating endogenous brain functions (emotion, impulsivity, or stress) by electrophysiological measurements<br>3) Bio-medical engineering to decode higher order brain functions |

| Degree Program                     | Major Field of Study (Education and Research Field) | Faculty Name and Email   | Major Research Topics   |
|------------------------------------|---|--|---|
|                                    |   | Professor<br>Katsuhiko Ogasawara<br>oga@hs.hokudai.ac.jp                   | 1) Hospital management and health system research<br>2) tele-healthcare system and social health informatics<br>3) Medical technology assessment and health economics   |
|                                    |   | Professor<br>Taro Yamauchi<br>taroy@med.hokudai.ac.jp                      | -Fieldwork in small societies in developing countries<br>1) Global Health: basic human needs (BHN) & QOL of local populations/societies<br>2) Child Health: food & nutrition, physical activity, growth & development, physical fitness, behavioral pattern<br>3) Transdisciplinary Research: participatory action research by local children to co-create healthy community (e.g., water, sanitation and hygiene (WASH))       |
|                                    |   | Professor<br>Atsuko Ikeda<br>AAraki@cehs.hokudai.ac.jp                     | 1) Epidemiological studies of Environmental Chemical Exposure and its effect on adverse health outcomes.<br>2) Birth cohort studies on environment and children's health<br>3) Indoor air quality and inhabitants' health   |
|                                    |   | Professor<br>Shu-Ping Hui<br>keino@hs.hokudai.ac.jp                        | 1) Research on lipoproteins, lipid peroxides, fatty acid and biologically active lipids (plasmalogen, lysophospholipid, cardiolipin)<br>2) Development of biomarkers and testing reagents<br>3) Research on NASH, lipid droplets and functional foods   |
|                                    |   | Associate Professor<br>Mika Otsuki<br>lasteroideb612@pop.med.hokudai.ac.jp | 1) Clinical neuropsychology/ cognitive neurology (researching on mechanism of aphasia, agnosia, apraxia and memory impairment.)<br>2) Neuroimaging studies using fMRI or ECDL.<br>3) Interdisciplinary study of language.   |
| Master's Degree Program in Nursing | Nursing Science                                     | Professor<br>Yasuhiko Ebina<br>ebiyas@hs.hokudai.ac.jp                     | 1) Research on women's mental health care<br>2) Research on support for mothers and children who requires social and emotional help<br>3) Research on women's cancer awareness, prevention, and screening   |
|                                    | Advanced Public Health Nursing                      | Professor<br>Etsuko Tadaka<br>e_tadaka@pop.med.hokudai.ac.jp               | 1) The generation of evidence and development of preventive approaches related to health/longevity<br>2) The development of new theories, techniques, indicators, and manufacturing in community care systems/programs<br>3) Empirical research on the prevention of social isolation and loneliness and community development<br>4) The setting and solving agenda related to public and community nursing in the next society |
|                                    | Advanced Midwifery                                  |  |   |
|                                    | Advanced Practice Nursing                           | Professor<br>Michitaka Ozaki<br>ozaki-m@med.hokudai.ac.jp                  | 1) Molecular mechanism of stress response and regulation<br>2) Liver physio-pathology and its systemic impact (liver cell/organ function and its systemic affects)<br>3) Bio-imaging: non-invasive/continuous visualization of cell/organ function and its application for evaluation of cell/organ atmospheres and diagnosis/therapy   |

| Degree Program | Major Field of Study (Education and Research Field) | Faculty Name and Email   | Major Research Topics  |
|----------------|---|--|--|
|                |   | Professor<br>Michiko Yuki<br>yukimck@hs.hokudai.ac.jp                      | 1) Development of rehabilitation nursing skills<br>2) Nursing program for deterioration prevention of older adults with chronic disease<br>3) Disability prevention program among the community-dwelling older adults<br>4) Nursing support to care-recipients and family caregivers at home   |
|                |   | Professor<br>Rika Yano<br>r-yano@med.hokudai.ac.jp                         | 1) Development of Nursing Care Outcome Model<br>2) Visualization of Nursing Arts by Expert Nurses<br>3) Study on Educational Strategies for Developing Nursing Skills  |
|                |   | Professor<br>Katsuhiko Ogasawara<br>oga@hs.hokudai.ac.jp                   | 1) Nursing informatics: ontology and knowledge system<br>2) Tele-healthcare system and social health informatics<br>3) Nursing economics and medical technology assessment   |
|                |   | Professor<br>Taro Yamauchi<br>taroy@med.hokudai.ac.jp                      | -Fieldwork in small societies in developing countries<br>1) Global Health: basic human needs of local communities and QOL of local populations<br>2) Human Ecology: food and nutrition, physical activity, body size and composition, behavioral pattern<br>3) Child Health: nutritional status, growth and development, physical fitness, lifestyle |
|                |   | Professor<br>Atsuko Ikeda<br>AAraki@cehs.hokudai.ac.jp                     | 1) Epidemiological studies of Environmental Chemical Exposure and its effect on adverse health outcomes.<br>2) Birth cohort studies on environment and children's health<br>3) Indoor air quality and inhabitants' health  |
|                |   | Professor<br>Naomi Sumi<br>nsumi@hs.hokudai.ac.jp                          | 1) Standardization and development of programs for discharge planning and community medical cooperation.<br>2) Research of care system and care management for cancer patients and their families.<br>3) Development and evaluation of advance practice of clinical nursing specialists and education in CNS course.                                 |
|                |   | Associate Professor<br>Naoko Miyajima<br>miyajima@hs.hokudai.ac.jp         | 1) Development and measurement of mental health nursing skills<br>2) Research on the mental health of nurses<br>3) A study of communication channels in nursing  |
|                |   | Associate Professor<br>Mika Otsuki<br>lasteroideb612@pop.med.hokudai.ac.jp | 1) Study of cognitive function<br>2) Study of cognitive impairment of neurological diseases.   |
|                |   | Associate Professor<br>Mikiko Iwamoto<br>miki@hs.hokudai.ac.jp             | 1) Development of the interprofessional ethics education program in the nursing graduate school.<br>2) Research of Leadership Roles and Management Functions in Nursing.   |

| Degree Program | Major Field of Study (Education and Research Field) | Faculty Name and Email   | Major Research Topics  |
|----------------|---|--|--|
|                |   | Associate Professor<br>Michiyo Hirano<br>mihirano@med.hokudai.ac.jp    | 1) Developing a care program of social activities for the older people who require daily support<br>2) Developing a preventive care program for the community-dwelling older people<br>3) Practice and competency of public health nurses working at prefecture and municipality public health centers           |
|                |   | Associate Professor<br>Yoshiko Kondo<br>kondo.yoshiko@hs.hokudai.ac.jp | 1) Sexual and Reproductive Health<br>2) Women's Health<br>3) Midwifery<br>4) Ethics related to Reproductive Health, Medicine and Technology<br>5) Mental Health of women and family involved in Artificial Reproductive Technology   |
|                |   | Associate Professor<br>Miho Sato<br>m_sato@med.hokudai.ac.jp           | For people with chronic disease/chronic health problem<br>1) research on psychosocial experience<br>2) research on self-care/self-management<br>3) research on foot health   |
|                |   | Associate Professor<br>Akemi Matsuzawa<br>matsuzawa@hs.hokudai.ac.jp   | 1) Health and quality of life of children with special health care needs and their families in the communities<br>2) Support for raising children with special health care needs<br>3) Evaluation of the quality of care and health care services for children with special health care needs and their families |

# DOCTORAL DEGREE PROGRAMS



1. Basic Requirements for Dissertation

- 1) Doctoral dissertations must reflect sufficient academic values and exhibit advanced creativity to demonstrate that the authoring student meets the level of academic achievement, competence and quality stipulated in the *Hokkaido University Postgraduate Degree Programs Degree Awarding Principles* and the *Graduate School of Health Sciences Diploma Policy* to be conferred a doctoral degree.
- 2) Doctoral degree candidates must be the sole author of their dissertations. Any part of a submitted dissertation by a candidate must not have infringed on the originality and ideas of research papers published or research presentations made by persons other than the dissertation candidate/author.
- 3) Doctoral dissertations must not infringe on copyright and the right of publicity of persons other than the dissertation candidates/authors.
- 4) Doctoral dissertations must be written based on the research conducted while abiding by the *Code of Conduct for Scientists at Hokkaido University*.

2. Dissertation structure

The structure of the dissertation should meet the following requirements.

- 1) An adequate title is given to the dissertation.
- 2) The dissertation discusses the research background and clarifies the research purposes.
- 3) The dissertation describes the research methods which align with the research purposes.
- 4) Research results are graphically and adequately presented using such as charts, graphs and diagrams.
- 5) Discussion is generated in accordance with the research results.
- 6) The dissertation appropriately draws a conclusion which answers defined research purposes.
- 7) References are cited appropriately.
- 8) The dissertation covers all necessary stages above and has them appropriately chaptered.

3. Dissertation content

The content of the dissertation will be reviewed with the following criteria in mind. It is however up to the examination committee to decide to which criterion they give more weight.

- 1) The committee finds in the dissertation the academic values of international standards in the concerned discipline. Academic values mean a contribution to advancing the research and development in the concerned discipline such as discovering unknown phenomena and matters, establishing and developing new analysis methods and theories and creating new academic interpretations and concepts.
- 2) The dissertation employs appropriate research topics and thematic research methods grounded on previous research and exhibits advanced creativity.
- 3) Research data essential to the research topics and methods have been collected and processed.
- 4) The process of the research project is elaborated in detail.
- 5) The dissertation provides in-depth analyses and detailed interpretation of data in the figures and tables.
- 6) Coherent structure and content are given which have helped lead to compelling conclusions.

**Division of Health Sciences Common Courses**

| Division of Health Sciences Common Courses |                                       |                         |                         |                   |          |               |              |         |                      |         |
|--|---------------------------------------|-------------------------|-------------------------|-------------------|----------|---------------|--------------|---------|----------------------|---------|
| Major Field of Study                       | Course                                | Eligible Year of Course | Number of Course Credit |                   |          |               | Class Format |         |                      | Remarks |
|  |                                       |                         | Required                | Required Elective | Elective | Not Specified | Lecture      | Seminar | Experiment/practical |         |
| Common Courses                             | Advanced Study of Medical Management  | 1                       | 2                       |                   |          |               | ○            |         |                      |         |
|  | Total available credits from 1 course | -                       | 2                       | 0                 | 0        | 0             | -            |         |                      |         |

**Doctoral Degree Program in Health Sciences**

| Doctoral Degree Program in Health Sciences |   |                         |                         |                   |          |               |              |         |                      |  |  |
|--|---|-------------------------|-------------------------|-------------------|----------|---------------|--------------|---------|----------------------|--|--|
| Major Field of Study                       | Course  | Eligible Year of Course | Number of Course Credit |                   |          |               | Class Format |         |                      | Remarks  |  |
|  |   |                         | Required                | Required Elective | Elective | Not Specified | Lecture      | Seminar | Experiment/practical |  |  |
| Advanced Medical Sciences                  | Advanced Study of Medical Imaging Science             | 1                       |                         | 2                 |          |               | ○            |         |                      | Complete a set of Advanced Study (2 credits or more) and Advanced Seminar (2 credits or more) under the same name (covering the same course topic) from a Major Field of Study of your choice. |  |
|  | Advanced Seminar on Medical Imaging Science           | 1                       |                         | 2                 |          |               |              | ○       |                      |  |  |
|  | Advanced Study of Biomedical Science and Technology   | 1                       |                         | 2                 |          |               | ○            |         |                      |  |  |
|  | Advanced Seminar on Biomedical Science and Technology | 1                       |                         | 2                 |          |               |              | ○       |                      |  |  |
|  | Advanced Study of Charged Particle Therapy            | 1                       |                         | 2                 |          |               | ○            |         |                      |  |  |
|  | Advanced Seminar on Charged Particle Therapy          | 1                       |                         | 2                 |          |               |              | ○       |                      |  |  |
|  | Total available credits from 6 courses                | -                       | 0                       | 12                | 0        | 0             | -            |         |                      |  |  |
| Comprehensive Health Sciences              | Advanced Study of Rehabilitation Science              | 1                       |                         | 2                 |          |               | ○            |         |                      |  |  |
|  | Advanced Seminar on Rehabilitation Science            | 1                       |                         | 2                 |          |               |              | ○       |                      |  |  |
|  | Advanced Study of Health Evaluation                   | 1                       |                         | 2                 |          |               | ○            |         |                      |  |  |
|  | Advanced Seminar on Exercise on Health Evaluation     | 1                       |                         | 2                 |          |               |              | ○       |                      |  |  |
|  | Advanced Study of Health Science Management           | 1                       |                         | 2                 |          |               | ○            |         |                      |  |  |
|  | Advanced Seminar on Health Science Management         | 1                       |                         | 2                 |          |               |              | ○       |                      |  |  |
|  | Total available credits from 6 courses                | -                       | 0                       | 12                | 0        | 0             | -            |         |                      |  |  |
| Supervised Individual Study                | Health Sciences                                       | 1, 2, 3                 | 6                       |                   |          |               |              | ○       |                      | Complete the “Supervised Individual Research in Health Sciences” if your Doctoral Degree Program is “Health Sciences”.   |  |
|  | Total available credits from 1 course                 | -                       | 6                       | 0                 | 0        | 0             | -            |         |                      |  |  |

**Doctoral Degree Program in Nursing**

| Major Field of Study        | Course   | Eligible Year of Course | Number of Course Credit |                   |          |               | Class Format |         |                      | Remarks   |
|-----------------------------|--|-------------------------|-------------------------|-------------------|----------|---------------|--------------|---------|----------------------|---|
|                             |  |                         | Required                | Required Elective | Elective | Not Specified | Lecture      | Seminar | Experiment/practical |   |
| Nursing Sciences            | Advanced Study of Fundamental Nursing Science          | 1                       |                         | 2                 |          |               | ○            |         |                      | Complete a set of Advanced Study (2 credits or more) and Advanced Seminar (2 credits or more) under the same name (covering the same course topic). |
|                             | Advanced Seminar on Fundamental Nursing Science        | 1                       |                         | 2                 |          |               |              | ○       |                      |   |
|                             | Advanced Study of Clinical Nursing Science             | 1                       |                         | 2                 |          |               | ○            |         |                      |   |
|                             | Advanced Seminar on Clinical Nursing Science           | 1                       |                         | 2                 |          |               |              | ○       |                      |   |
|                             | Advanced Study of Social Health and Nursing Science    | 1                       |                         | 2                 |          |               | ○            |         |                      |   |
|                             | Seminar on Social Health and Nursing Science           | 1                       |                         | 2                 |          |               |              | ○       |                      |   |
|                             | Advanced Study of Women's Health and Nursing Science   | 1                       |                         | 2                 |          |               | ○            |         |                      |   |
|                             | Advanced Seminar on Women's Health and Nursing Science | 1                       |                         | 2                 |          |               |              | ○       |                      |   |
|                             | Total available credits from 8 courses                 | —                       | 0                       | 16                | 0        | 0             | —            |         |                      |   |
| Supervised Individual Study | Nursing Science  | 1, 2, 3                 | 6                       |                   |          |               |              | ○       |                      | Complete the “Supervised individual Research in Nursing Science” if your Doctoral Degree Program is “Nursing”.                                      |
|                             | Total available credits from 1 course                  | —                       | 6                       | 0                 | 0        | 0             | —            |         |                      |   |

|   |  |                                       |  |
|---|--|---------------------------------------|--|
| Name of Degree  | The degree of Doctor of Health Sciences<br>The degree of Doctor of Nursing |                                       |  |
| Course Type, Number of Credits Required and Other Requirements for Completion   |  | Semester and class hour duration      |  |
| Pass a doctoral dissertation review and final exams conducted by the Graduate School of Health Sciences upon completion of 12 credits or more including 1 Common Course, a set of an Advanced Study (2 credits or more) and an Advanced Seminar (2 credits or more) under the same name (covering the same course topic) and 1 Supervised Individual Research course. |  | Number of semesters per academic year | 2 semesters                                |
|   |  | Number of weeks per semester          | 15 weeks                                   |
|   |  | Class hour duration                   | Lecture/seminar: 90 minutes                |
|   |  |                                       | Experiment/practical training: 180 minutes |

# Graduate School of Health Sciences Doctoral Degree Program Courses and Teaching Staff in Charge

\*Not offered in AY2023

As of April 1, 2023

| Degree Program                             | Major Field of Study          | Course   | Teaching Staff in Charge  | Credit | When Course is Offered (Year & Semester) |
|--|-------------------------------|--|---|--------|--|
| Doctoral Degree Program in Health Sciences | Common Courses                | Advanced Study of Medical Management                   | OGASAWARA Katsuhiko   | 2      | Year1 Sem1                               |
|  | Advanced Medical Sciences     | Advanced Study of Medical Imaging Science              | KAMISHIMA Tamotsu, SUGIMORI Hiroyuki, KAGA Sanae, TAKASHIMA Hiroyuki  | 2      | Year1 Sem1                               |
|  |                               | Advanced Seminar on Medical Imaging Science            | KAMISHIMA Tamotsu, SUGIMORI Hiroyuki, KAGA Sanae, TAKASHIMA Hiroyuki  | 2      | Year1 Sem2                               |
|  |                               | Advanced Study of Biomedical Science and Technology    | ISHIZU Akihiro, KAMISHIMA Tamotsu, YAMAGUCHI Hiroyuki, Shu-Ping HUI, OZAKI Michitaka, TAMURA Shogo, FUKUNAGA Hisanori, MATSUYA Yusuke   | 2      | Year1 Sem1                               |
|  |                               | Advanced Seminar on Biomedical Science and Technology  | ISHIZU Akihiro, KAMISHIMA Tamotsu, YAMAGUCHI Hiroyuki, Shu-Ping HUI, OZAKI Michitaka, TAMURA Shogo, FUKUNAGA Hisanori, MATSUYA Yusuke   | 2      | Year1 Sem2                               |
|  |                               | Advanced Study of Charged Particle Therapy*            | TBA   | 2      | Year1 Sem1                               |
|  |                               | Advanced Seminar on Charged Particle Therapy*          | TBA   | 2      | Year1 Sem2                               |
|  | Comprehensive Health Sciences | Advanced Study of Rehabilitation Science               | CHIKENJI Takako, TOHYAMA Harukazu, MAEJIMA Hiroshi, OTSUKI Mika, SAMUKAWA Mina, MIYAZAKI Taisuke, HASEGAWA Naoya  | 2      | Year1 Sem1                               |
|  |                               | Advanced Seminar on Rehabilitation Science             | CHIKENJI Takako, TOHYAMA Harukazu, MAEJIMA Hiroshi, OTSUKI Mika, SAMUKAWA Mina, MIYAZAKI Taisuke, HASEGAWA Naoya  | 2      | Year1 Sem2                               |
|  |                               | Advanced Study of Health Evaluation                    | OGASAWARA Katsuhiko, TBA, CHIBA Hitoshi, YAMAUCHI Taro, IKEDA Atsuko  | 2      | Year1 Sem1                               |
|  |                               | Advanced Seminar on Exercise on Health Evaluation      | OGASAWARA Katsuhiko, TBA, CHIBA Hitoshi, YAMAUCHI Taro, IKEDA Atsuko  | 2      | Year1 Sem2                               |
|  |                               | Advanced Study of Health Science Management*           | TBA   | 2      | Year1 Sem1                               |
|  |                               | Advanced Seminar on Health Science Management*         | TBA   | 2      | Year1 Sem2                               |
|  |                               | Supervised Individual Research in Health Sciences      | KAMISHIMA Tamotsu, YAMAGUCHI Hiroyuki, ISHIZU Akihiro, Shu-Ping HUI, OZAKI Michitaka, TOHYAMA Harukazu, MAEJIMA Hiroshi, CHIKENJI Takako, YOKOSAWA Koichi, OGASAWARA Katsuhiko, YAMAUCHI Taro, IKEDA Atsuko, SUGIMORI Hiroyuki, TAKASHIMA Hiroyuki, FUKUNAGA Hisanori, KAGA Sanae, SAKURAI Toshihiro, TAMURA Shogo, SAMUKAWA Mina, MIYAZAKI Taisuke, HASEGAWA Naoya, OTSUKI Mika, OKUBO Torahiko, MASUDA Sakiko, SAWAMURA Daisuke, YOSHIDA Kazuki, TSUTSUMI Kaori, KASAHARA Satoshi, ISHIDA Tomoya, KOSHINO Yuta, YOSHIMURA Takaaki | 6      | Year1&2&3 Full Year                      |
|  | Nursing Sciences              | Advanced Study of Fundamental Nursing Science          | YANO Rika, OZAKI Michitaka, SUMI Naomi, SATO Miho   | 2      | Year1 Sem1                               |
|  |                               | Advanced Seminar on Fundamental Nursing Science        | YANO Rika, OZAKI Michitaka, SUMI Naomi, SATO Miho   | 2      | Year1 Sem2                               |
|  |                               | Advanced Study of Clinical Nursing Science             | YUKI Michiko, MIYAJIMA Naoko, OTSUKI Mika, HIRANO Michiyo   | 2      | Year1 Sem1                               |
|  |                               | Advanced Seminar on Clinical Nursing Science           | YUKI Michiko, MIYAJIMA Naoko, OTSUKI Mika, HIRANO Michiyo   | 2      | Year1 Sem2                               |
|  |                               | Advanced Study of Social Health and Nursing Science    | TADAKA Etsuko, EBINA Yasuhiko, OGASAWARA Katsuhiko, IKEDA Atsuko, YAMAUCHI Taro, KONDO Yoshiko, HIRANO Michiyo, MATSUZAWA Akemi   | 2      | Year1 Sem1                               |
|  |                               | Advanced Seminar on Social Health and Nursing Science  | TADAKA Etsuko, EBINA Yasuhiko, OGASAWARA Katsuhiko, IKEDA Atsuko, YAMAUCHI Taro, KONDO Yoshiko, HIRANO Michiyo, MATSUZAWA Akemi   | 2      | Year1 Sem2                               |
|  |                               | Advanced Study of Women's Health and Nursing Science   | EBINA Yasuhiko, KONDO Yoshiko, MATSUZAWA Akemi  | 2      | Year1 Sem1                               |
|  |                               | Advanced Seminar on Women's Health and Nursing Science | EBINA Yasuhiko, KONDO Yoshiko, MATSUZAWA Akemi  | 2      | Year1 Sem2                               |
|  |                               | Supervised Individual Research in Nursing Science      | EBINA Yasuhiko, OZAKI Michitaka, YUKI Michiko, YANO Rika, SUMI Naomi, TADAKA Etsuko, OGASAWARA Katsuhiko, YAMAUCHI Taro, IKEDA Atsuko, MIYAJIMA Naoko, OTSUKI Mika, IWAMOTO Mikiko, SATOH Miho, HIRANO Michiyo, KONDO Yoshiko, MATSUZAWA Akemi, COLLEY Noriyo   | 6      | Year1&2&3 Full Year                      |

Note: Course names and teaching staff members are subject to change.

# Graduate School of Health Sciences Division of Health Sciences

## Doctoral Program Supervising Faculty

As of April 1, 2023

| Degree Program                             | Major Field of Study (Education and Research Field) | Faculty Name and Email  | Major Research Topics   |
|--|---|---|---|
| Doctoral Degree Program in Health Sciences | Advanced Medical Sciences                           | Professor<br>Tamotsu Kamishima<br>Ktamotamo2@hs.hokudai.ac.jp         | 1) Research on automatic detection of joint space narrowing using radiography<br>2) Research on quantitative evaluation of inflammatory joint disease activity using ultrasound and MR images<br>3) Research on the quantification of osteoporosis  |
|  |   | Professor<br>Hiroyuki Yamaguchi<br>hiroyuki@med.hokudai.ac.jp         | 1) Persistent infection of intercellular pathogens and its molecular basis<br>2) Adaptive strategy of human pathogens for their surviving in natural environments<br>3) Analysis of symbiosis among microbes focused on an interaction of unculturable bacteria with amoebae  |
|  |   | Professor<br>Akihiro Ishizu<br>aishizu@med.hokudai.ac.jp              | 1) Pathology and pathogenesis of vasculitis<br>2) Biophylaxis and its disorders<br>3) Analysis of immune cell function  |
|  |   | Professor<br>Shu-Ping Hui<br>keino@hs.hokudai.ac.jp                   | 1) Research on plasma lipoproteins and bioactive lipids<br>2) Research on dyslipidemia such as ectopic lipid storage disease<br>3) Research on oxidative stress response and regulation of mitochondrial function<br>4) Research and development of functional foods and elucidation of mechanism of action   |
|  |   | Professor<br>Michitaka Ozaki<br>ozaki-m@med.hokudai.ac.jp             | 1) Analysis of molecular mechanism of biological stress, stress response and adaptation<br>2) Liver physio-pathology and its systemic impact (a comprehensive study of cell/organ function and whole body conditions)<br>3) Spatio-temporal bio-analysis by non-invasive visualization and monitoring of molecular function / cellular atmosphere and, its clinical application |
|  |   | Associate Professor<br>Sanae Kaga<br>sanae@med.hokudai.ac.jp          | 1) Assessment of cardiovascular diseases using ultrasonography<br>2) Assessment of age-related changes in cardiac shape and function<br>3) Study of method for standardization and accuracy control of ultrasonographic examination   |
|  |   | Associate Professor<br>Hiroyuki Sugimori<br>sugimori@hs.hokudai.ac.jp | 1) Development of deep learning-based diagnostic assistance programs<br>2) Development of quantitative image processing algorithms for medical images<br>3) Medical image analysis with computer vision and programming   |
|  |   | Associate Professor<br>Toshihiro Sakurai<br>sakura@hs.hokudai.ac.jp   | 1) Plasma lipid and lipoprotein metabolism<br>2) Development of clinical examination and analytical methods<br>3) Functional food chemistry for health  |

| Degree Program | Major Field of Study (Education and Research Field) | Faculty Name and Email   | Major Research Topics   |
|----------------|---|--|---|
|                |   | Associate Professor<br>Shogo Tamura<br>stamura@hs.hokudai.ac.jp                  | 1) Elucidation of the bone marrow hematopoietic microenvironment<br>2) Development of bone marrow organoids<br>3) Molecular pathophysiology of congenital blood coagulation disorders   |
|                |   | Associate Professor<br>Hiroyuki Takashima<br>hirotakashima@pop.med.hokudai.ac.jp | 1) Quantitative image analysis for various disorders<br>2) Study for metabolism of muscle and bone with aging and inflammation<br>3) Development of image analysis for musculoskeletal disorders  |
|                |   | Associate Professor<br>Hisanori Fukunaga<br>hisanori.fukunaga@hs.hokudai.ac.jp   | 1) Elucidation of tissue-sparing effect following spatially fractionated radiation and its application for radiotherapy<br>2) Biochemical analysis on interactions between biomolecules damaged by radiation                                      |
|                | Comprehensive Health Sciences                       | Professor<br>Harukazu Tohyama<br>tohyama@med.hokudai.ac.jp                       | 1) Rehabilitation for the anterior cruciate ligament injuries<br>2) Biomechanics for sports injuries<br>3) Biology and biomechanics of tendon and ligament  |
|                |   | Professor<br>Hiroshi Maejima<br>maeji@hs.hokudai.ac.jp                           | 1) Synaptic modification induced by exercise and motor learning.<br>2) Synaptic plasticity induced by neurotrophin expression.<br>3) Health promotion and prevention of degenerative change in the elderly.                                       |
|                |   | Professor<br>Takako Chikenji<br>chikenji@pop.med.hokudai.ac.jp                   | 1) Cell senescence in regeneration and inflammatory disease<br>2) Mesenchymal progenitors/stromal cells in inflammatory disease   |
|                |   | Associate Professor<br>Mina Samukawa<br>mina@hs.hokudai.ac.jp                    | 1) Mechanisms and prevention of sports injuries<br>2) Effects of therapeutic exercises<br>3) Warm-up and physical performance   |
|                |   | Associate Professor<br>Taisuke Miyazaki<br>miyazaki@med.hokudai.ac.jp            | 1) Molecular mechanism of neurotransmitter-specific contact between pre- and postsynapse<br>2) Molecular mechanism of excitatory and inhibitory network formation in the cerebellum<br>3) Zone-specific neuronal circuit in the cerebellar cortex |
|                |   | Associate Professor<br>Naoya Hasegawa<br>n_hasegawa@hs.hokudai.ac.jp             | 1) Rehabilitation for movement disorders<br>2) Motor learning on postural control and Effects of sensory biofeedback training<br>3) Mechanism and Quantitative assessment of postural control   |
|                |   | Professor<br>Koichi Yokosawa<br>yokosawa@med.hokudai.ac.jp                       | 1) Non-invasive measurements and imaging of human cognitive functions<br>2) Inter-brain interaction during communication<br>3) Evaluation of mental states by spatiotemporal-analyzing functional information of human brain                      |

| Degree Program                     | Major Field of Study (Education and Research Field) | Faculty Name and Email   | Major Research Topics   |
|------------------------------------|---|--|---|
|                                    |   | Professor<br>Katsuhiko Ogasawara<br>oga@hs.hokudai.ac.jp                   | 1) Hospital management and health system research<br>2) Tele-healthcare system and social health informatics<br>3) Medical technology assessment and health economics   |
|                                    |   | Professor<br>Taro Yamauchi<br>taroy@med.hokudai.ac.jp                      | -Fieldwork in small societies in developing countries<br>1) Global Health: basic human needs (BHN) & QOL of local populations/societies<br>2) Child Health: food & nutrition, physical activity, growth & development, physical fitness, behavioral pattern<br>3) Transdisciplinary Research: participatory action research by local children to co-create healthy community (e.g., water, sanitation and hygiene (WASH))       |
|                                    |   | Professor<br>Atsuko Ikeda<br>AAraki@cehs.hokudai.ac.jp                     | 1) Epidemiological studies of Environmental Chemical Exposure and its effect on adverse health outcomes.<br>2) Birth cohort studies on environment and children's health<br>3) Indoor air quality and inhabitants' health   |
|                                    |   | Professor<br>Shu-Ping Hui<br>keino@hs.hokudai.ac.jp                        | 1) Research on lipoproteins, lipid peroxides, fatty acid and biologically active lipids (plasmalogen, lysophospholipid, cardiolipin)<br>2) Development of biomarkers and testing reagents<br>3) Research on NASH, lipid droplets and functional foods   |
|                                    |   | Associate Professor<br>Mika Otsuki<br>lasteroideb612@pop.med.hokudai.ac.jp | 1) Clinical neuropsychological study on cognitive impairment<br>2) Interdisciplinary research of mechanism of language<br>3) Study on mechanism of cognitive impairment integrating functional images and electrophysiological study  |
| Doctoral Degree Program in Nursing | Nursing Sciences                                    | Professor<br>Yasuhiko Ebina<br>ebiyas@hs.hokudai.ac.jp                     | 1) Research on women's mental health care<br>2) Research on support for mothers and children who requires social and emotional help<br>3) Research on women's cancer awareness, prevention, and screening   |
|                                    |   | Professor<br>Etsuko Tadaka<br>e_tadaka@pop.med.hokudai.ac.jp               | 1) The generation of evidence and development of preventive approaches related to health/longevity<br>2) The development of new theories, techniques, indicators, and manufacturing in community care systems/programs<br>3) Empirical research on the prevention of social isolation and loneliness and community development<br>4) The setting and solving agenda related to public and community nursing in the next society |
|                                    |   | Professor<br>Michitaka Ozaki<br>ozaki-m@med.hokudai.ac.jp                  | 1) Analysis of molecular mechanism of biological stress response and adaptation<br>2) Liver physio-pathology and its systemic impact (a comprehensive study of cell/organ function and  |

| Degree Program | Major Field of Study (Education and Research Field) | Faculty Name and Email   | Major Research Topics  |
|----------------|---|--|--|
|                |   |  | whole body conditions)<br>3) Optic imaging: non-invasive visualization and monitoring of molecular function / cellular atmosphere and its application for diagnosis and therapy  |
|                |   | Professor<br>Michiko Yuki<br>yukimck@hs.hokudai.ac.jp              | 1) Development of rehabilitation nursing skills<br>2) Nursing program for deterioration prevention of older adults with chronic disease<br>3) Disability prevention program among the community-dwelling older adults<br>4) Nursing support to care-recipients and family caregivers at home   |
|                |   | Professor<br>Rika Yano<br>r-yano@med.hokudai.ac.jp                 | 1) Development of Nursing Care Outcome Model<br>2) Visualization of Nursing Arts by Expert Nurses<br>3) Study on Educational Strategies for Developing Nursing Skills  |
|                |   | Professor<br>Katsuhiko Ogasawara<br>oga@hs.hokudai.ac.jp           | 1) Nursing informatics: ontology and knowledge system<br>2) Tele-healthcare system and social health informatics<br>3) Nursing economics and medical technology assessment   |
|                |   | Professor<br>Taro Yamauchi<br>taroy@med.hokudai.ac.jp              | -Fieldwork in small societies in developing countries<br>1) Global Health: basic human needs of local communities and QOL of local populations<br>2) Human Ecology: food and nutrition, physical activity, body size and composition, behavioral pattern<br>3) Child Health: nutritional status, growth and development, physical fitness, lifestyle                                 |
|                |   | Professor<br>Atsuko Ikeda<br>AAraki@cehs.hokudai.ac.jp             | 1) Epidemiological studies of Environmental Chemical Exposure and its effect on adverse health outcomes.<br>2) Birth cohort studies on environment and children's health<br>3) Indoor air quality and inhabitants' health  |
|                |   | Professor<br>Naomi Sumi<br>nsumi@hs.hokudai.ac.jp                  | 1) Standardization and development of programs for discharge planning and community medical cooperation<br>2) Research of care system and care management for cancer patients and their families<br>3) Development and evaluation of advance practice of clinical nursing specialists and education in CNS course<br>4) Development of cancer education for students and adolescents |
|                |   | Associate Professor<br>Naoko Miyajima<br>miyajima@hs.hokudai.ac.jp | 1) Qualitative Research on Life Episodes of mental disorder before the Onset<br>2) Improving the Cognitive Ability of the Elderly by Developing the Communication Skills of Nurses   |
|                |   | Associate Professor<br>Mika Otsuki<br>lasteroideb612@pop.med.hok   | 1) Clinical neuropsychological study on cognitive impairment<br>2) Interdisciplinary research of mechanism of  |

| Degree Program | Major Field of Study (Education and Research Field) | Faculty Name and Email   | Major Research Topics  |
|----------------|---|--|--|
|                |   | udai.ac.jp   | language<br>3) Study on mechanism of cognitive impairment integrating functional images and electrophysiological study   |
|                |   | Associate Professor<br>Mikiko Iwamoto<br>miki@hs.hokudai.ac.jp         | 1) Development of the interprofessional ethics education program in the nursing graduate school.<br>2) Research of Leadership Roles and Management Functions in Nursing.   |
|                |   | Associate Professor<br>Michiyo Hirano<br>mihirano@med.hokudai.ac.jp    | 1) Developing a care program of social activities for the older people who require daily support<br>2) Developing a preventive care program for the community-dwelling older people<br>3) Practice and competency of public health nurses working at prefecture and municipality public health centers           |
|                |   | Associate Professor<br>Yoshiko Kondo<br>kondo.yoshiko@hs.hokudai.ac.jp | 1) Sexual and Reproductive Health<br>2) Women's Health<br>3) Midwifery<br>4) Ethics related to Reproductive Health, Medicine and Technology<br>5) Mental Health of women and family involved in Artificial Reproductive Technology   |
|                |   | Associate Professor<br>Miho Sato<br>m_sato@med.hokudai.ac.jp           | For people with chronic disease/chronic health problem<br>1) research on psychosocial experience<br>2) research on self-care/self-management<br>3) research on foot health   |
|                |   | Associate Professor<br>Akemi Matsuzawa<br>matsuzawa@hs.hokudai.ac.jp   | 1) Health and quality of life of children with special health care needs and their families in the communities<br>2) Support for raising children with special health care needs<br>3) Evaluation of the quality of care and health care services for children with special health care needs and their families |