Doctoral Program in Nursing Science

Name of the degree to be conferred	Doctor of Philosophy in Nursing
Educational purpose	There is a need for health care professionals who can respond creatively, scientifically, and flexibly to the diverse medical needs of people from various cultural backgrounds. Based on an interdisciplinary and international perspective, this degree program will train students to become advanced professionals in nursing, educators, researchers, and nursing and medical experts in the fields of policy and administration who not only possess specialized knowledge and skills, but who are also capable of constantly examining nursing practice with a research mindset. In addition, we will develop individuals who can develop new nursing techniques, education, and research methods based on "interdisciplinarity" and "science," not only in the specialized fields of nursing.
Vision of human resources development	Individuals who can become educators, researchers, and high-level professionals who can serve as bridges between practice and theory, with the ability to systematize education and research methods that form the basis for the creation of new knowledge and technological development required for the next generation.

The degree of Doctor of Philosophy in Nursing is commenced to those who have fulfilled the requirements for the completion of the Doctoral programs, as set out in the Graduate School Regulations of the University of Tsukuba and related university regulations, and who are deemed to have the following competencies.

Competencies	Evaluation perspectives
1. Knowledge creation competence: Ability to create new knowledge that can contribute to future society	① Are there any research findings that can be considered new knowledge? ② Can we expect you to create knowledge that will contribute to future society?
2. Management competence: Ability to plan and implement measures to identify and solve challenges from a higher perspective	 ① Can you make and implement long-term plans for critical challenges? ② Can you identify challenges, even in other areas of expertise, and solve them from a higher perspective?
3. Communication competence: Ability to express the true nature of academic findings positively and clearly	 Can you explain the true nature of research content and specialized knowledge clearly and logically to researchers from different areas and to people other than researchers? Do you proactively share your findings with researchers and experts from your field of expertise and accurately answer questions?
4. Leadership competence: Ability to have objectives get accomplished under your leadership	① Can you set attractive and compelling goals?② Are you capable of building systems to realize goals and accomplish objectives as the leader?
5. Internationality competence: Possession of a high level of awareness and motivation to be internationally active and contribute to international society	 Do you have strong awareness and motivation to contribute to international society and international activities? Have you obtained adequate linguistic skills for international information collection and action?
6. Ability to create scientific evidence: Research ability to create new knowledge that will become the basis for nursing practice.	 Do you have results that can be regarded as the creation of new knowledge? Is the research expected to create knowledge that will contribute to the development of nursing science?
7. Expertise in nursing science: Ability to deepen advanced expertise in nursing science.	① Can you explore the essence of expertise in nursing science?② Can you grasp the phenomena of nursing science and make them concrete and abstract?

- 8. Ethics as a researcher and educator: Ability to conduct research and education with a solid sense of ethics
- ① Can you make decisions and take actions based on ethical standards that protect human dignity?
- ② Can you formulate a research plan that takes research ethics into consideration and carry it out appropriately for an advanced research project?
- 9. International research and practice skills: Ability to conduct research and practice at an international level
- ① Can you disseminate his/her achievements in international academic exchange?
- ② Can you discuss his/her expertise with students and researchers whose native language is not Japanese?

Dissertation evaluation criteria

(Evaluation criteria)

- 1. The contents of research contribute to nursing science.
- 2. The dissertation must be original and the arguments supporting the originality must be sound.
- 3. The significance and purpose of the research must be clearly defined, the research must be conducted using appropriate methods, and the paper must be written using the appropriate format and notation.
- 4. The data used must have been collected by the applicant in accordance with the purpose of the research. The data used should have been collected by the applicant in accordance with the purpose of the research. On the other hand, if the data includes data from the past (before entering the second semester), the analysis of the data should be new.
- 5. There should be no ethical issues in conducting the research or publishing the results.

(Review Procedure)

- In the research protocol review, a review committee consisting of one primary examiner and one secondary
 examiner will be organized to review the research protocol and the presentation at the research protocol review
 meeting together.
- After the research protocol review meeting, the review committee decides whether to accept or re-examine based on the evaluation criteria.
- The acceptance or rejection of a dissertation is determined by a preliminary examination by the Preliminary Dissertation Examination Committee (hereinafter referred to as the "Preliminary Examination Committee"), followed by a dissertation examination and final examination by the Dissertation Examination Committee.
- The role of the Preliminary Examination Committee is to confirm the eligibility of the applicant and to confirm that the dissertation submitted is of a level worthy of examination by the Dissertation Examination Committee. In order to improve the quality of the dissertation, the student may be required to revise the submitted dissertation within a certain period of time.
- The Preliminary Examination Committee will consist of three or four faculty members in charge of the nursing science degree program other than the advisor and the secondary advisor. Of these, the primary examiner and one secondary examiner will be members of the research proposal review committee.
- At the Preliminary Examination Committee, a presentation session will be held to allow the applicant to explain the contents of his/her research and to answer questions about related matters. In principle, the presentation session will be open to the public, and the date, time, place, title of the dissertation, and name of the applicant will be posted in advance.
- In principle, the Preliminary Examination Committee shall consist of four or five faculty members in charge of the Master's Program in Nursing Science other than the advisor and the secondary advisor. The primary examiner shall be the faculty member in charge of research guidance for the Master's Program in Nursing Science. The primary examiner and two secondary examiners shall be members of the Preliminary Examination Committee for the relevant dissertation, and one or more faculty members from other degree programs of the university or from outside the university shall be included as new secondary examiners. In principle, the examiners should have doctoral degrees.
- The expert committee shall have the applicant explain the contents of the research by holding a presentation and carrying out question-and-answer sessions on the matters related to such contents. The presentation shall be open to the public in principle and be announced in advance by releasing the date, place, title of the research assignment, and the applicant's name. The deliberation by the primary and secondary examiner after the presentation to determine the pass/fail will be closed to the public. If, by consensus of the reviewers, the submitted paper is judged to require additional revisions, the reviewers may request the applicant to make such revisions within a certain period.

Curriculum Policy

The curriculum shall be designed to enable students to work toward the creation of a new nursing science by emphasizing academic fusion and interdisciplinary ideas. As a measure to enhance learning, the curriculum will be structured to enable students to deepen their learning of theory based on scientific evidence and to develop nursing science as a practical science, with the aim of developing individuals with a true balance between practice and theory, beyond the narrow framework of academic disciplines. In addition, the program will provide an environment to cultivate research skills of an international standard by invigorating academic exchange related to education and research, as well as allowing students to study abroad at universities with which we have academic agreements.

Curriculum organization policy

- The curriculum will be organized to emphasize integration and interdisciplinary thinking, with the entire educational program as one area (nursing science), without being bound by existing nursing science fields.
- Students are required to take two or more credits from Graduate General Education Courses, Degree Programs' Common Courses, and Inter-disciplinary Foundation Courses in order to contribute to the cultivation of basic knowledge, broad perspectives, and general knowledge and abilities in related fields with the major field of study as the axis.
- Students will acquire the ability to deepen their expertise in nursing science through "Foundations and Principles of Nursing Science," and acquire the competence of knowledge creation based on scientific evidence through "Advanced Research Methods in Nursing Science". In addition, students will acquire a sense of ethics as researchers and educators through "Advanced Nursing Education" and ability to perform advanced statistical analysis through "Application of Statistics in Nursing Research," and focus on improving their basic abilities and qualities as researchers and educators.
- Based on the knowledge and abilities acquired in the Foundation Subjects for Major, students will develop advanced knowledge of nursing and research skills to create scientific evidence for the basis of nursing practice through Major Subjects such as "Advanced Topics in Nursing Science" "Advanced Seminars in Nursing Science I," and "Advanced Seminars in Nursing Science II".
- Students will acquire international-level research skills in the process of working on their dissertations through Major Subjects such as "Research in Advanced Nursing Science", seminars in research groups, and special lectures by lecturers from academic partner universities.
- Students will also acquire research skills backed by solid ethics and value standards through Graduate General Education Courses, eAPRIN, ethics in clinical research courses, and "Advanced Seminars in Research Ethics".

Learning methods • Processes

- •The number of credits necessary for completion of doctoral degree course shall be 25 or more
- Students are required to take at least ten credits of foundation subjects for their major. The "Foundations and Principles of Nursing Science" (2 credits) and "Advanced Research Methods in Nursing Science" (2 credits)" are required. Others are selected from the elective subjects "Advanced Nursing Education" (2 credits), "Application of Statistics in Nursing Research" (2 credits), Graduate General Education Courses, Degree Programs' Common Courses, and Inter-disciplinary Foundation Courses. Students Students are encouraged to take the foundation subjects for their major in the first half of the first year.
- The minimum number of Major Subjects to be taken for completion is 15 credits, including "Advanced Topics in Nursing Science" (2 credits), "Advanced Seminars in Nursing Science I" (2 credits), "Advanced Seminars in Nursing Science II" (1 credit), "Advanced Seminars in Research Ethics" (1 credit), and "Research in Advanced Nursing Science" (9 credits).
- In the second half of the first year, students take "Advanced Seminars in Nursing Science I," in which they review domestic and international papers on research topics, systematically and logically plan and present their research objectives and methods, and constructively discuss their research plan for review.
- Students who are able to draft a research plan will present their research plan at the research plan review meeting and have their research plan reviewed.

- Students who have passed the research proposal review (expected to be in the latter half of the second year) will take "Advanced Seminars in Nursing Science II" so that they can proceed with their research according to the research proposal, and present the originality and novelty of their research topics with evidence and discuss them constructively.
- Students are required to take "Research in Advanced Nursing Science", which is a course for writing a doctoral dissertation. In April of the first year, a faculty advisor and secondary faculty advisors (up to two) will be selected, and a system will be established for students to receive research guidance. For research projects involving human subjects, the plan must be approved by the appropriate ethics review committee before the start of the research.

Evaluation of learning outcomes

- The syllabus of each course should clearly state the competencies to be acquired and the evaluation perspectives.
- Each course instructor will grade the course according to the evaluation criteria in the syllabus, and the course director will report the final grade for the course.
- •The research ability and practical ability aiming at international character and international applicability shall be evaluated through the degree of participation in special lectures by the lecturers at the universities with academic exchange agreement etc. and actual results of other research/practical activities with other countries.
- In addition to the class subjects, the status of the doctoral dissertation will be evaluated in the research plan review. The research plan review committee will be held three times a year in April, August, and December so that students can apply for review in a timely manner according to their circumstances.
- In the research protocol review, a review committee consisting of one primary examiner and one secondary examiner will be organized to review the research protocol and the presentation at the research protocol review meeting together. Neither the advisor nor the secondary advisor can be a member of the review committee. The primary and secondary examiners should be research advisors who hold doctoral degrees. However, if it is judged necessary to conduct a higher quality and more appropriate review based on the content of the research, this is not limited to the secondary reviewers. The members of the research plan review committee will serve as members of the dissertation review committee when the student applies for the degree.
- After the research protocol review meeting, the review committee decides whether to accept or re-examine based on the evaluation criteria. The five evaluation criteria for the research protocol review are: (1) whether the research is novel and has academic value, (2) whether the previous research has been thoroughly examined and the research background has been presented, (3) whether the significance and purpose of the research are clear, (4) whether appropriate research methods have been selected, and (5) whether there are no ethical problems in conducting the research.
- The student and his/her supervisor who are judged to be re-examined may re-write the research plan referring to the advice of the examiners and re-examine it every semester (however, the re-examination will start from the presentation, and in principle, the primary and secondary examiners will not be changed).
- The examination for the doctoral dissertation is as follows.
- In principle, the format of the dissertation should be dissertation format. Specifically, the dissertation must include a discussion of the literature on the research topic, the purpose, subject, methods, results, discussion, conclusions, and references of the research in this order, printed in Japanese or English on A4 paper using a word processor, etc., and simply bound. If the original paper is a co-authored paper, the written consent of the co-author(s) to submit the paper as a dissertation must be obtained. If other formats or decisions are required, the Doctoral Program in Nursing Science Education Council will discuss the pros and cons.
- The acceptance or rejection of a dissertation is determined by a preliminary examination by the Preliminary Dissertation Examination Committee (hereinafter referred to as the "Preliminary Examination Committee"), followed by a dissertation examination and final examination by the Dissertation Examination Committee.

- The role of the Preliminary Examination Committee is to confirm the eligibility of the applicant and to confirm that the dissertation submitted is of a level worthy of examination by the Dissertation Examination Committee. If necessary, in private, the applicant student can explain his or her research and answer questions. In addition, to improve the quality of the dissertation, guidance and advice can be given and the submitted dissertation can be required to be revised within a certain period of time.
- The Preliminary Examination Committee will consist of three or four faculty members in charge of the nursing science degree program other than the advisor and the secondary advisor. Of these, the primary examiner and one secondary examiner will be members of the research proposal review committee. In principle, the examiners should have doctoral degrees. However, if it is judged to be necessary for more appropriate review based on the research field, research method, etc., the secondary reviewer will not be bound by this rule.
- The standard qualifications for those who intend to obtain the degree of Doctor of Nursing Science by submitting a dissertation shall be as follows (1) At the time of submission, at least one article related to nursing science must have been published in an academic journal as the first author, (2) the applicant must have passed the review of the research plan, and (3) the applicant must have earned (or expect to earn) at least 25 credits by the end of the third year in accordance with the course of study specified by the Doctoral Program in Nursing Science.
- At the Preliminary Examination Committee, a presentation session will be held to allow the applicant to explain the contents of his/her research and to answer questions about related matters. In principle, the presentation session will be open to the public, and the date, time, place, title of the dissertation, and name of the applicant will be posted in advance. Since it is open to the public, non-members of the review committee may participate in the questioning. The deliberation by the primary examiner and the secondary examiner after the presentation to determine the pass/fail will be closed to the public. If, by consensus of the reviewers, the submitted paper is judged to require additional revisions, the reviewers may request the applicant to make such revisions within a certain period of time.
- The dissertation review committee examines whether or not the dissertation that has passed the preliminary examination is suitable for the award of the doctoral degree.
- In principle, the Preliminary Examination Committee shall consist of four or five faculty members in charge of the Doctoral Program in Nursing Science other than the advisor and the secondary advisor. The primary examiner shall be the faculty member in charge of research guidance for the Doctoral Program in Nursing Science. The primary examiner and two secondary examiners shall be members of the Preliminary Examination Committee for the relevant dissertation, and one or more faculty members from other degree programs of the university or from outside the university shall be included as new secondary examiners. However, if it is judged to be necessary for more appropriate review based on the research field, research method, etc., the secondary reviewer will not be bound by this rule.
- The expert committee shall have the applicant explain the contents of research by holding presentation and carry out questions and answers session on the matters related to such contents. The presentation shall be open to the public in principle, and be announce in advance by releasing the date, place, title of research assignment and name of the applicant etc. The deliberation by the primary examiner and the secondary examiner after the presentation to determine the pass/fail will be closed to the public. If, by consensus of the reviewers, the submitted paper is judged to require additional revisions, the reviewers may request the applicant to make such revisions within a certain period of time.

- The dissertation review committee will examine the dissertation to ensure that it is a self-authored paper with novelty, originality, and sufficient academic value in the field of nursing science according to the evaluation criteria. The following five items are the evaluation criteria. (1) The content of the research must contribute to nursing science, (2) The argument must be original and the evidence supporting the originality must be sound, (3) The significance and purpose of the research must be clearly defined, the research must be conducted using appropriate methods, and the paper must be written in an appropriate format and notation, (4) The data used must have been collected by the applicant in accordance with the purpose of the research. If the data includes data from the past (before the applicant entered the doctoral program), the analysis of the data should be novel, and (5) there should be no ethical problems in conducting the research or publishing the results.

Admission Policy

Desired students

Students are expected to be motivated to contribute to the knowledge system of nursing science through the creation of new knowledge by utilizing the nursing practice and research skills developed in the Master's and Doctoral programs. Furthermore, we seek students who aim to become researchers, educators, and advanced professionals who can bridge the gap between practice and theory based on an interdisciplinary and international perspective.

Selection policy

- •The entrance examination shall be performed in August. In the case where there are insufficient number of applicants in the examination of August, the examination shall be implemented again in the following February.
- The number of applicants shall be 8.
- Applicants must meet one of the following qualifications. (1) Those who have a master's degree or are expected to have a master's degree by March of the year before admission, (2) Those who have a professional degree or are expected to have a professional degree by March of the year before admission, (3) Those who have been granted a degree equivalent to a master's degree or a professional degree in a foreign country, or who are expected to do so by March of the year before admission. Those who have reached the age of 24 or who will reach the age of 24 by March of the year before admission.
- In the entrance examination, academic ability and character will be assessed through written and oral examinations of specialized subjects and English. In the examination of specialized subjects, questions will be asked using texts related to nursing and medical care in order to evaluate the candidates' specialized knowledge of nursing. In the English examination, questions will be given to evaluate whether the candidate has the English ability to use academic papers from overseas. The oral examination will evaluate whether the student has the ability to conduct original research as a graduate student, and whether the student has aptitude, qualities, future potential, and a clear sense of purpose in the field of nursing science as a researcher, educator, or practitioner.
- For the examinees of international students, the following shall be considered: the questions shall be in English and preparation of such questions shall be devised etc.