

Student Handbook

AY2023

Graduate School of Innovation and Practice for Smart Society

Hiroshima University

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Hiroshima University Policy

1 Founding Principle

A Single Unified University, Free and Pursuing Peace

2 The Five Guiding Principles

- Pursuit of Peace
- Creation of New Forms of Knowledge
- Nurturing of Well-Rounded Human Beings
- Collaboration with the Local, Regional, and International Community
- Continuous Self-Development

Hiroshima University Charter

Hiroshima University is a national research university established in 1949 in Hiroshima, which is the first atomic-bomb stricken city in the history of humankind.

Hiroshima University's mission is to contribute to the well-being of humankind by realizing a free and peaceful society based on the following five guiding principles: The Pursuit of Peace; The Creation of New Forms of Knowledge; The Nurturing of Well-Rounded Human Beings; Collaboration with the Local, Regional and International Community; and Continuous Self-Development.

1. Respect for human rights

In all its activities, Hiroshima University will not tolerate discrimination or harassment of any kind in relation to ethnicity, nationality, religion, belief, gender, economic or social status, or disability, and will respect and protect the human rights and individuality of each person.

2. Education

Hiroshima University will create an environment in which each student can learn independently and flexibly, while nurturing individuals with a rich sense of humanity, broad education, excellent specialized knowledge, and the ability to discover and solve problems on their own, who will contribute to the realization of a society that enables free and peaceful sustainable development.

3. Research

Hiroshima University will strive for an in-depth search for the truth and the creation of new knowledge through advanced and innovative research based on the free thinking of its researchers, and will share the fruits of such endeavors with the wider community, in order to continuously create innovations to solve the problems faced by the local, national and international communities.

4. Social Contributions

As a university aspiring to be open to and trusted by society, Hiroshima University is determined to contribute to local and international society by actively publicizing its activities, securing cooperation and collaboration with local communities, industry and other organizations concerned, and engaging itself in all activities including education, research, and medical care.

5. Realization of a sustainable society

Hiroshima University, as a university engaged in world-class activities for the realization of a sustainable society, will strive to lead the world in providing cutting-edge solutions to global issues such as poverty, conflict, the suppression of human rights, infectious diseases, and environmental, resource and energy problems.

The members of Hiroshima University will take pride in their work, reflect tirelessly on the role expected of them by the nation and the world, and continue to fulfill each member's mission by fully demonstrating his/her individuality and abilities, while ensuring full compliance and showing mutual trust and respect.

(Enacted on December 27, 2021)

Hiroshima University Code of Conduct

As a national research university established in Hiroshima, Hiroshima University is committed to fulfilling its mission of contributing to the well-being of humankind by realizing a free and peaceful society, and at the same time, it is required to be highly ethical, transparent and fully accountable for its activities. In order to live up to this responsibility, the University has established the “Hiroshima University Code of Conduct” as a guideline that all members should always be aware of and follow.

1. Respect for human rights and diversity

We will respect the human rights and personality of each individual, will not tolerate discrimination or harassment of any kind, and will realize a campus where all members can fully demonstrate their individuality and abilities.

2. Upholding independence and autonomy

While giving due consideration to social norms, ethics, and the integrity of our individual activities, we will uphold academic freedom and the autonomy and independence of education and research. We will aspire to conduct and develop research and education that are of the highest international standard, and return the fruits of such research and education to society.

3. Compliance with laws and regulations

In our activities as members of Hiroshima University, we will comply with social norms and rules, relevant laws and regulations, and university regulations.

4. Disclosure/Protection of Information

In order to fulfill our accountability to society in a transparent and fair manner, we will disclose to society the content and results of our activities and other information held by the University in a timely and appropriate manner, and will hold ourselves to high ethical standards in the use of that information, as well as in the protection of personal information.

5. Information Management

In order to ascertain the value of Hiroshima University's information assets and to ensure their safety and reliability, we shall fully recognize the threats to information security, and shall manage and operate information appropriately in accordance with our respective duties.

6. Appropriate management of expenses and assets

We will manage and use the university's expenses and assets in an appropriate and efficient manner, always being aware that most of the expenses and assets for our activities come from taxes and other forms of social support.

7. Maintenance of a safe and secure environment

We will raise awareness of safety in the conduct of our operation and provide a safe, secure and comfortable environment for education, study, research and work.

8. Addressing environmental issues

We will take the initiative in addressing global environmental issues such as climate change, large-scale disasters, environmental pollution, and resource and energy problems, to hand over a stable environment to future generations.

(Enacted on December 27, 2021)

Academic Calendar and School Hours

1 Academic Calendar

First Semester	Spring Holiday	April 1 to April 7
	Classes	April 8 to August 10
	Summer Holiday	August 11 to September 30
Second Semester	Classes	October 1 to December 25
	University Foundation Day	November 5 (has classes)
	Winter Holiday	December 26 to January 5
	Classes	January 6 to February 15
	End-of-Academic-Year Holiday	February 16 to March 31

(Note)

At Hiroshima University, we employ a quarter system, under which an academic year consists of a first term (the first half of the first semester), a second term (the second half of the first semester), a third term (the first half of the second semester), and a fourth term (the second half of the second semester).

The periods described above are based on Hiroshima University's general regulations, and there are cases where class schedules are not in line with the periods. For your class schedules, please check each year's academic calendar released on Student Information Momiji.

2 Periods of Class Time in the Daytime

Period	1	2	3	4	5	6	7	8	9	10
Time	8:45	9:30	10:30	11:15	12:50	13:35	14:35	15:20	16:20	17:05
	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽
	9:30	10:15	11:15	12:00	13:35	14:20	14:20	16:05	17:05	17:50

Period	11	12	13	14
Time	18:00	18:45	19:40	20:25
	▽	▽	▽	▽
	18:45	19:30	20:25	21:10

Diploma Policy

【Master's Course】

To realize the international expansion of Society 5.0, the Graduate School of Innovation and Practice for Smart Society strives to foster the leaders, who, working across six major areas of research, while flexibly integrating and collaborating with other areas of research, have the essential capabilities required of a leader with specialized skill. They are expected to recognize from a broad perspective the diverse social issues faced by the international community that has become increasingly complex due to economic development and also to have the expertise to resolve such issues.

Therefore, the School will confer a master's degree (Master of Philosophy) to students who have acquired the following capabilities, earned the required credits, received the necessary research advising, submitted and successfully defended their master's thesis:

1. Wide-ranging knowledge of cutting-edge AI technologies and digital social infrastructures and specialized knowledge to propose technology and policy developments and ensure their social implementation.
2. A worldview that enables them to conceive practical scientific approaches oriented toward smart societies, spurring proactive efforts for peace based on the techniques of data science.
3. Constant awareness of globally shared goals and an attitude of respecting diversity in technological development and policy implementation.
4. A sense of one's own responsibility to engage in evidence-based analysis regarding the impact of policy implementation and technological development.
5. The ability to discover issues that may be occurring on-site and implement solutions through social participation.
6. The skills to communicate with diverse stakeholders and promote mutual understanding.

【Doctoral Course】

To realize the international expansion of Society 5.0, the Graduate School of Innovation and Practice for Smart Society strives to foster the leaders, who, working across six major areas of research, while flexibly integrating and collaborating with other areas of research, have the essential capabilities needed to devise concrete and practical solutions to the diverse social issues faced by an international community that has become increasingly complex due to economic development, and who also possess practical and specialized skills grounded in a high level of academic knowledge. The School also trains "innovative researchers" who have the capability to create, disseminate, and spearhead new, practical scientific approaches to smart societies that fuse cutting-edge academic fields through collaboration with researchers from different fields.

Therefore, the School will confer a doctoral degree (either Doctor of Philosophy, Doctor of Philosophy in Engineering, Doctor of Philosophy in Informatics and Data Science, Doctor of Philosophy in Agriculture, Doctor of Philosophy in Health Science, Doctor of Philosophy in Medical Science, or Doctor of Philosophy in Economics) to students who have acquired the following abilities, earned the required credits, received the necessary research advising, submitted and successfully defended their doctoral thesis.

1. The specialized knowledge needed to develop cutting-edge AI technologies and digital social infrastructures and to propose and implement processes spanning from technology and policy development to the social implementation thereof, working under multifaceted constraints.
2. A worldview that enables them to create and implement practical scientific approaches that are oriented toward smart societies, spurring proactive efforts for peace based on techniques of data science.
3. A positive attitude toward leveraging diversity while maintaining a constant awareness of the sustainability of developed technologies and practical policies for future generations.
4. A sense of one's own responsibility to engage in evidence-based analysis regarding the impact of policy implementation and technological development, and then to include that analysis in project development plans.
5. The ability to discover issues that may arise on-site and implement global solutions through social participation in terms of reorganizing the way spaces and periods are used.
6. The skills to identify diverse stakeholders, engage in wide-ranging communication, and build consensus.

Curriculum Policy

【Master's Course】

To enable students to achieve the targets that are defined in the diploma policy, the Graduate School of Innovation and Practice for Smart Society organizes and executes highly interdisciplinary curriculum according to the following points.

- 1.The School offers Basic Module that enable students to acquire "basic knowledge of information science," which is the common foundation for Society 5.0-related technologies, and "social scientific thinking and analytical skills" to grasp the essence of social issues and to connect them to the international development of Society 5.0.
- 2.The School will provide Specialization Module to enable students to acquire expertise in research areas related to the international development of Society 5.0.
- 3.Practical Module will enable students to acquire the necessary communication and implementation skills, with a focus on the practical experience and fieldwork necessary for implementing the international development of Society 5.0.
- 4.The School offers Master Thesis Module to provide opportunities for students to acquire research skills in practical scientific fields that integrate different areas of research, and to obtain the applied specialized knowledge and skills necessary to write academic papers that leverage those specialized skills.
- 5.Students will also have access to Common Graduate Courses, enabling them to broaden and deepen their education and cultivate the motivation to realize 'Science for Sustainable Development', in addition to broadening their perspectives beyond their graduate schools and specialized fields, and fostering their interest and awareness of society and social issues.

In the curriculum described above, teaching and learning will be implemented by utilizing active learning, experimental learning and online classes, in a manner that is suited to the educational content of classes, including lectures, seminars, and practical training courses.

In regards to grading, the standards are clearly outlined in the syllabus, and strict grading is conducted. Thesis defenses will be conducted in accordance with the decision criteria for awarding degrees and evaluation standards for degree theses of the School.

【Doctoral Course】

To enable students to achieve the targets that are defined in the diploma policy, the Graduate School of Innovation and Practice for Smart Society organizes and executes highly interdisciplinary curriculum according to the following points.

- 1.The School will provide Practical Knowledge Development Module, to enable students to acquire the sociological knowledge necessary to facilitate the international development of Society 5.0, as well as the communication ability and presentation skills necessary to that end.
- 2.Students will have access to Practical Knowledge Application Module, with a focus on the practical experience and fieldwork necessary for practical engagement with the development of Society 5.0, enabling them to acquire the ability to discover issues that arise in their practice and fieldwork, apply those skills in multicultural societies, and conduct technological development that can lead to solutions.
- 3.The School offers Dissertation Module, providing opportunities for students to acquire research skills in practical science fields that integrate different areas of research, and to obtain the applied specialized knowledge and skills to draw logically clear conclusions necessary for writing academic papers that leverage those specialized skills.
- 4.Students will also have access to Common Graduate Courses, enabling them to broaden and deepen their education and cultivate the motivation to realize 'Science for Sustainable Development' and to cultivate a broad perspective that transcends graduate schools and specialized fields, as well as an interest in society and an awareness of social issues.

In the curriculum described above, teaching and learning will be implemented by utilizing active learning, experimental learning and online classes, in a manner that is suited to the educational content of classes, including lectures, seminars, and practical training courses.

In regards to grading, the standards are clearly outlined in the syllabus, and strict grading is conducted. The dissertation defenses will be conducted in accordance with the decision criteria for awarding degrees and evaluation standards for degree theses of the School.

Common Matters

Master's Courses / Doctoral Courses

By-laws of the Graduate School of Innovation and Practice for Smart Society

(Approved by the Dean of the Graduate School on April 1, 2023)

By-laws of the Graduate School of Innovation and Practice for Smart Society

(Purpose)

Article 1: The purpose of the present by-laws is to stipulate the necessary matters not specified in the Hiroshima University Graduate School Regulations (Regulations No. 2, January 15, 2008; hereafter, the “Hiroshima University Regulations”) regarding research and education for students of the Graduate School of Innovation and Practice for Smart Society at Hiroshima University (hereafter, the “Graduate School”).

(Purposes of Education and Research)

Article 2: The purpose of the Graduate School is two-fold: (1) to foster practical leaders who can solve diverse social issues facing international society by fully utilizing the practical and integrated knowledge acquired in the educational programs; and (2) to nurture innovative researchers who can create, disseminate, and lead smart society and practical science by systematically and strategically integrating existing disciplines that are in line with the Society 5.0 concept.

(Research Field)

Article 3: The Graduate School shall establish the following research fields:

- 1) Cyber Physical System
- 2) Smart Mobility
- 3) Smart Energy
- 4) Smart Agriculture
- 5) Global Health and Medical Science
- 6) Social Innovation Science

(Curricula)

Article 4: The curricula of the Graduate School shall be as indicated in the appended table.

(Class Subjects and Related Matters)

Article 5: Class subjects provided at the Graduate School and their number of credits shall be as indicated in the appended table.

(2) The class timetable shall be published at the beginning of each academic year.

(Standards for the Calculation of Credits)

Article 6: The number of credits for each class subject shall be calculated based on the following standards:

- 1) For lectures, 15 hours of classwork constitute 1 credit.
 - 2) For seminars, 15 or 30 hours of classwork constitute 1 credit.
 - 3) For experiments and practical exercises, 30 or 45 hours of classwork constitute 1 credit.
- (2) For class subjects provided in two or more parallel modes, the number of hours of classwork conducted in each mode shall be determined in light of the aforementioned standards so that 45 hours of combined classwork constitute 1 credit.

(Supervisor/Sub-advisers)

Article 7: Upon students’ enrollment in the Graduate School, the Faculty Council of the Graduate School of Innovation and Practice for Smart Society at Hiroshima University (hereafter, the “Faculty Council”) shall promptly assign to each student a supervisor and two or more sub-advisers, who will offer advice and guidance on class subjects and research. The sub-advisers must include at least one faculty member whose research field is different from that of the supervisor.

(2) Students wishing to change their supervisor or sub-advisers shall obtain approval from the relevant supervisor/sub-adviser before applying to and obtaining approval from the Dean of the Graduate School. However, they can directly apply to the Dean of the Graduate School in special circumstances.

- (3) The Dean of the Graduate School may change students' supervisor or sub-advisers, if such change is deemed desirable, upon obtaining approval from the students concerned.

(Registration Procedure)

Article 8: Students must select class subjects in consultation with their supervisor, obtain approval from faculty members in charge of the class subjects, and complete the prescribed procedure to register for the class subjects within the period designated for each semester.

- (2) Students who fail to complete the procedure in the preceding paragraph shall not be allowed to take class subjects unless there are legitimate circumstances, in which cases the students may take class subjects upon obtaining approval from the faculty members in charge of the class subjects concerned.
- (3) Students may take class subjects offered by other Hiroshima University graduate schools that are deemed necessary by their supervisor, in accordance with the rules of the Graduate School.
- (4) Students of other graduate schools wishing to register for class subjects offered by the Graduate School must complete the prescribed procedure within the designated period for each semester, upon obtaining approval from the faculty members in charge of the class subjects concerned.

(Upper Limit of Course Registration)

Article 9: In regard to the number of credits that students must acquire as a requirement for completion, the upper limit of the number of credits for which master's course students may register for courses in one semester shall be 26 credits, provided that credits for intensive courses shall be excluded.

- (2) Notwithstanding the provision of the preceding paragraph, students who have acquired the prescribed credits with outstanding grades (as separately specified) may be allowed to register for courses in excess of the upper limit of the number of credits in the following semester.

(Research Title)

Article 10: Students must promptly decide their research title in consultation with their supervisor after their enrollment in the Graduate School and submit it to the Dean of the Graduate School.

(Special Arrangements of the Education Method)

Article 11: Special arrangements may be made to facilitate the pursuance of education at the Graduate School, if the Dean of the Graduate School considers it necessary from an educational standpoint (following deliberations by the Faculty Council), by scheduling classes/research guidance sessions in the evening, during specific hours, or during a specific period (or devising other appropriate measures).

(Long-term Completion of Curricula)

Article 12: The treatment of long-term completion of curricula shall be in accordance with the Hiroshima University By-Laws on the Treatment of Long-term Completion of Curricula (approved by the Vice-President [Education/Student] on April 1, 2004).

- (2) The maximum period for long-term completion of the curricula shall be four years in the master's course, and six years in the doctoral course.

(Student Exchange and Studying Abroad, etc.)

Article 13: When deemed educationally beneficial, the Graduate School may regard the number of credits acquired for class subjects completed in an educational program at another graduate school (including a foreign graduate school and United Nations University) as having been acquired by the completion of class subjects at the Graduate School, provided it does not exceed 15 credits (following deliberations of the Faculty Council).

- (2) The stipulations set forth in the preceding paragraph shall apply mutatis mutandis in cases where class subjects conducted by a foreign school through correspondence education are completed in Japan.
- (3) The number of credits that may be regarded as having been acquired in accordance with the stipulations set forth in the preceding two paragraphs shall not exceed 15 credits in total.

(Recognition of Credits Acquired Prior to Admission)

Article 14: The Graduate School may (if it considers it beneficial from an educational standpoint) recognize credits that students have acquired by completing class subjects at other graduate schools in Japan or overseas (including credits acquired as credited auditors) prior to their admission to the Graduate School as credits earned by completing class subjects at the Graduate School.

- (2) The number of credits other than those acquired at the Graduate School (including credits acquired as credited auditors) that may be recognized as credits earned by completing the subjects at the Graduate School (pursuant to the provision of the preceding paragraph) shall not exceed 15 credits, except in cases of transfer.
- (3) The number of credits that may be regarded as having been acquired at the Graduate School in accordance with the stipulations set forth in the preceding article and paragraph, shall not exceed 20 credits in total.
- (4) The recognition of credits acquired prior to admission to the Graduate School (as prescribed in the preceding three paragraphs) shall be determined in accordance with the Hiroshima University By-laws Regarding Approval of the Previously Acquired Credits (approved by the Vice-President [Education/Student] on April 1, 2004).

(Requirements for Completing the Master's Course)

Article 15: To complete the master's course, students must be enrolled in the course for at least two years, obtain 30 credits or more from subjects offered by Hiroshima University (by completing the subjects indicated in the appended table), receive the necessary research guidance, submit a master's thesis during the enrollment period, and pass the screening of the thesis and final examination, with the exception of students whom the Dean of the Graduate School recognizes as having achieved outstanding academic performance following deliberations by the Faculty Council) who may be exempted the enrollment requirement and may complete the course in one year at least.

(Requirements for Completing Doctoral Course)

Article 16: To complete the doctoral course, students must be enrolled in the course for at least three years, obtain 17 credits or more by completed the class subjects indicated in the appended table, receive the necessary research guidance, submit a doctoral thesis during the enrollment period, and pass the screening of the thesis and final examination, with the exception of students whom the Dean of the Graduate School recognizes as having achieved outstanding research results (following deliberations by the Faculty Council) in which an enrollment duration of at least one year shall suffice. For students who completed a master's course in less than two years, a total enrollment duration of at least three years shall suffice.

(Shortening of the Enrollment Duration in the Graduate School)

Article 17: In regard to credits acquired prior to being admitted to the Graduate School, in accordance with the stipulations set forth in Article 14, Item 1 (limited to credits earned after having the qualification for enrollment, in accordance with the stipulations set in Article 102, Item 1 in School Education Law (Act No. 26, 1947)), they are regarded as having been acquired by the completion of class subjects at the Graduate School. When part of the curricula of the master's course at the Graduate School is permitted to be completed by earning the said credits, taking the said credits, and considering the duration to acquire the said credits, the Graduate School may count the term prescribed by the Graduate School as part of the enrollment duration, provided that it does not exceed one year. However, even in this case, the enrollment duration of the said master's course shall be at least one year or more years.

- (2) The preceding paragraph does not apply to the enrollment duration of the doctoral course (stipulated in Article 16) for students who completed the master's course.

(Submission of Thesis)

Article 18: The students in the master's course must submit upon approval of their supervisor and sub-advisers their master's thesis to the Dean of the Graduate School by the date specified separately.

Article 19: The students in the doctoral course must submit upon approval of their supervisor and sub-advisers their doctoral thesis to the Dean of the Graduate School by the date specified separately.

(Thesis Screening)

Article 20: Theses submitted as part of the requirements for academic degrees shall be screened pursuant to the provisions of the Hiroshima University Degree Regulations (Regulations No. 8 of April 1, 2004) and the Internal Regulations of the Graduate School of Innovation and Practice for Smart Society based on the Hiroshima University Degree Regulations (approved by the Dean of the Graduate School on April 1, 2020).

(Final Examination)

Article 21: The final examinations for the master's and doctoral courses shall be taken by the students who have obtained the required credits, received the necessary research guidance, and submitted their prescribed theses.

(2) The date and method of the final examination shall be announced in advance.

(Leave of Absence)

Article 22: Students wishing to take a leave of absence must complete the prescribed procedure and obtain approval from the Dean of the Graduate School.

(Withdrawal)

Article 23: Students wishing to withdraw from the university must complete the prescribed procedure and obtain approval from the President of the University.

(Transfer)

Article 24: Students wishing to transfer to another graduate school must complete the prescribed procedure and obtain approval from the President of the University.

(Re-admission)

Article 25: Students who discontinued their studies in the master's or doctoral courses and wish to apply for re-admission to either course may only apply to the President of the University at the beginning of each academic year (following deliberations by the Faculty Council).

(2) The year of study and the number of years in which students re-admitted to the Graduate School may remain in their respective courses shall be separately indicated.

(Miscellaneous Regulations)

Article 26: Any necessary matters relevant to education in the Graduate School not stipulated in the present by-laws shall be separately determined following deliberations by the Faculty Council.

Supplementary Provisions

The present by-laws shall come into force on April 1, 2023.

Course Registration Procedure, Examinations and Grades

(1) Course Registration Procedure

- 1) The schedule of course registration procedure will be notified each semester through the Student Information Network Momiji.
For your course registration, please complete the necessary procedure through My Momiji, by using an on-or off-campus personal computer. My Momiji is a personal webpage that you can access via the Student Information Network Momiji, the online portal for Hiroshima University students (<https://momiji.hiroshima-u.ac.jp/momiji-top/en/index.shtml>).
- 2) In principle, you must complete your course registration within one week from the first class day of each semester or term.
- 3) If you cannot register for courses through My Momiji, then please contact the Support Office for International Development and Cooperation (in charge of the Graduate School of Innovation and Practice for Smart Society).
- 4) Between the first and second registration periods, there will be a period of adjustment by the Academic Affairs Office. During this period, you will be unable to register for courses.
- 5) In principle, you cannot register for courses or change your registration after the course registration period.
- 6) There are cases in which schools and graduate schools set their own course registration periods for intensive lectures and other programs. In these cases, please check the relevant notices on My Momiji or contact the Support Office of the relevant school or graduate school (e.g., the Support Office in charge of the relevant master's/doctoral course) and complete your procedure during the registration period.
- 7) Other information related to course registration is provided through My Momiji or other means.

(2) Examinations

- 1) The date, time, place, and method of examination at the end of each semester will be notified by the faculty in charge of each course.
- 2) Special measures for examinations, etc.
Students who cannot take end-of-term examinations under normal conditions, due to physical or other disabilities, may apply for special measures in accordance with the Special Measures for Examinations for Students with Physical or Other Disabilities. For details, please contact the Support Office for International Development and Cooperation in charge of the Graduate School of Innovation and Practice for Smart Society at least four weeks prior to the examination date after course registration is confirmed.
- 3) Cheating
Students who cheat on end-of-term examinations will receive a failing grade for all courses taken during the semester and will be subject to disciplinary action in accordance with the Hiroshima University Disciplinary Guidelines for Students.

(3) Grades

- 1) Grade confirmation
Please check your grades on My Momiji at the end of each semester. Grades can only be checked from a computer connected to the Hiroshima University Information Network System (HINET).
Grades must be checked by the primary supervisor before they can be checked by the student.
- 2) Questioning grades
If you have any questions about your grades, please refer to the System for Filing Grade Objections.

* My Momiji

Since information from the university to students is mainly provided through My Momiji, please be sure to log in to My Momiji and check it at least once a day. However, if My Momiji does not properly work, then the necessary information will be posted on your graduate school's bulletin board.
In addition, important information is also posted on the bulletin board.

Please ensure that you are free from any disadvantage caused by your failure to check My Momiji or your graduate school's bulletin board.

Common Graduate Courses

Graduate Schools of Hiroshima University offer the graduate students the Common Graduate Courses which are designed to develop their broad perspective and interest in society and awareness of problems and deepen their consideration of how each specialized field can contribute as "sciences leading to sustainable development".

Additionally, the courses help them grasp the latest developments in the social system and acquire the basic knowledge to play an active part in modern society.

All graduate students are required to take at least one (1) credit from each of subject types, "Sustainable Development Courses" and "Career Development and Data Literacy Courses".

〈Aims of Course Categories〉

◆ Sustainable Development Courses

To understand the Sustainable Development Goals (SDGs), which are agreed internationally and to acquire the ability to create sciences which lead to sustainable development and to solve various challenges in society.

◆ Career Development and Data Literacy Courses

To learn about the development of current social systems and to gain knowledge necessary for the future era and to specifically tackle the challenges of modern society and to acquire the ability to use the knowledge and skills necessary in the future era.

〈Course List (AY2023) 〉

1. For the master's course and professional degree course

Course Category	Subjects	No. of credits	Subjects available in English
Sustainable Development Courses	World Peace and HIROSHIMA	1	○
	Japanese Experience of Social Development - Economy, Infrastructure, and Peace	1	○
	Japanese Experience of Human Development - Culture, Education, and Health	1	○
Career Development and Data Literacy Courses	Data Literacy	1	○
	Data Literacy in Medicine	1	○
	Introduction to MOT	1	○
	Information security	1	○

2. For the doctoral course

Course Category	Subjects	No. of credits	Subjects available in English
Sustainable Development Courses	SDGs Ideas Mining Seminar for Specialists	1	○
	Regional development seminar from the viewpoint of the SDGs	1	○
	Seeking Universal Peace	1	○
Career Development and Data Literacy Courses	Utilization of Data Literacy in Medicine	1	○
	Skills and Arts of Leadership	1	○
	Innovation Practice	2	○
	Introduction to business creation	1	○

※Some of the Common Graduate Courses are offered on demand in order to provide opportunities for students who have difficulty attending school to take the courses. For the details, please check Momiji Top (https://momiji.hiroshima-u.ac.jp/momiji-top/en/learning/cginfo_e.html) or contact Education Promotion Group (Liberal Arts).

Subjects and Credits Approved by the Graduate School of Innovation and Practice for Smart Society

At the Graduate School of Innovation and Practice for Smart Society, we provide the following subjects and credits. Please check the class contents, requirements, evaluations, registration, and credits, including how to earn said credits.

List of Subjects

1. Subjects

For the Master's Course [* indicates the No. of Required Credits]

Subject Type	Subjects	Class Contents
Basic Module *6	Academic Writing I [1 credit, 1 st or 2 nd semester, compulsory elective]	In this subject, you will learn the basics of academic writing for abstracts of presentations at international conferences and for writing academic papers in English. As for presenting at international conferences, students will learn how to clearly describe the purpose and results of their research in an abstract, how to create a poster for a poster presentation, and how to organize an oral presentation. In addition, students will learn the structure of English papers, how to construct a paper, how to proceed with discussions from a broad perspective (which is necessary for practical science), and how to write introductions, conclusions, and experimental sections.
Practical Module *4	Internship [2 credits, 1 st and 2 nd semesters, compulsory elective]	This subject provides training for practical science through work experience in the field. Through internships at domestic and international private companies, international organizations, government agencies, and non-profit organizations, students will learn about the operation of companies and organizations, and contribute to solving related social issues.
	Fieldwork [2 credits, 1 st and 2 nd semesters, compulsory elective]	This subject provides training for practical science through field research activities. Fieldwork is an investigation and research activity conducted in domestic and overseas settings. This subject is also based on a fieldwork implementation plan (including the purpose, duration, region, research content, contact information, signature of supervisor, etc.) prepared by the student under the guidance of the supervisor.

For the Doctoral Course [* shows the No. of Required Credits]

Subject Type	Subjects	Class Contents
Practical Knowledge Development Module *1	Academic Writing II [1 credit, 1 st or 2 nd semester, compulsory elective]	In this subject, you will learn how to write a thesis in English and submit it to a journal, thereby striving to obtain practical and specific writing skills. This includes how to evaluate your research, how to select a journal to which you will contribute your thesis, and how to collect research data. While learning about easy-to-understand, logical thesis composition by examining specific examples, you will strive to obtain English writing techniques.
Practical Knowledge Application Module *2	Advanced Internship [2 credits, 1 st or 2 nd semester, compulsory elective]	In order for students to become researchers and advanced professionals who can build a sustainable society, it is important for them to understand how their specialized research is conducted and developed for social implementation in the real world. Thus, internships are conducted at academic institutions and companies in Japan and abroad to improve communication skills, cultivate social skills as professionals (through discussions with business people and members of society), and learn how to conduct research as a job.

	Advanced Fieldwork [2 credits, 1 st or 2 nd semester, compulsory elective]	Students will conduct research activities in domestic and overseas settings related to their field of specialization. This subject is based on a fieldwork implementation plan (including the purpose, duration, region, research content, contact information, signature of supervisor, etc.) prepared by the student under the guidance of the supervisor.
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2. Class Requirements of Academic Writing I for the master's course and Academic Writing II for the doctoral course

(1) Procedures

- 1) Students and supervisors shall plan for the acquisition of matters related to the submission of academic papers and presentations at international conferences in English.
- 2) The supervisor shall provide guidance to the students in the laboratory.
- 3) The supervisor notifies the Dean of the Graduate School (the Support Office) of the list of students and their evaluations after the guidance described in 2) above.
- 4) A credit will be granted based on the report from your supervisor regarding the implementation of the class [the Support Office will register the academic record and the credit].

(2) Document to be submitted

- Academic Writing Report

3. Class Requirements of the Internship for the master's course and Advanced Internship for the doctoral course * You do not need to register through My Momiji in order to take this subject.

(1) Procedure

- 1) Under the guidance of the supervisor, the student shall prepare an Internship Implementation Plan (prescribed form) and submit it to the Dean of the Graduate School (the Support Office) by the beginning of the internship.
- 2) Students shall conduct the internship based on the Internship Implementation Plan.
- 3) The total number of hours worked must be 60 or more hours. However, please complete it without interrupting your regular classes.
- 4) After completing your activity, submit the following documents to your supervisor:
 - An Internship Implementation Report (non-prescribed form, minimum of four A4 pages)
 - Certificate of Acceptance and Completion of Internship (prescribed form) prepared by your internship organization.
 - Application for Recognition of Credits (prescribed form)
- 5) Your performance will be evaluated based on the documents you submit through your supervisor and the level of your accomplishment in terms of the purposes of your academic activities and research and reported to the Dean of the Graduate School (the Support Office).
- 6) A credit will be granted by the Dean of the Graduate School based on the report from your supervisor regarding the implementation of the Internship. The Support Office will register the academic record and the credit.

(2) Documents to be submitted:

- Internship Implementation Plan (prescribed form)
- Report on the Internship
- Certificate of Acceptance and Completion of the Internship (prescribed form)
- Application for the Recognition of Credits (prescribed form)

4. Class Requirements of Fieldwork for the master's course and Advanced Fieldwork for the doctoral course

(1) Procedure

- 1) Under the guidance of the primary supervisor, the student shall prepare a Fieldwork Implementation Plan (prescribed form) and submit it to the Dean of the Graduate School (the Support Office) by the beginning of the fieldwork.
- 2) Students shall conduct the fieldwork based on the Fieldwork Implementation Plan.
- 3) The total number of hours conducted fieldwork must be set at least two or more weeks. However, please

complete it without interrupting your regular classes.

4) After completing your activity by the end of the next semester, submit the following documents to your primary supervisor:

- A Fieldwork Implementation Report (non-prescribed form, at least four A4 pages)
- Application for Recognition of Credit (prescribed form)

5) Your performance will be evaluated based on the documents you submit through your primary supervisor and the level of your accomplishment in terms of the purposes of your academic activities and research, and reported to the Dean of the Graduate School (the Support Office).

6) A credit will be granted by the Dean of the Graduate School based on the report from your supervisor regarding the implementation of the Fieldwork. The Support Office will register the academic record and the credit.

(2) Documents to be submitted:

- Fieldwork Implementation Plan (prescribed form)
- Report on the Fieldwork
- Application for the Recognition of Credits (prescribed form)

Academic Writing (I・II) 実施報告書
Academic Writing (I・II) Report

年 月 日
Date: (Year) (Month) (Day)

スマートソサイエティ実践科学研究院長 殿
To: The Dean of the Graduate School of Innovation and Practice for Smart Society

主指導教員氏名
Supervisor's Name

下記学生に対して、英語論文執筆指導を行いましたので、単位の認定を報告します。
I hereby report the recognition of credits for the following students. I have given them the necessary instruction to write academic papers in English.

記

学生番号 Student No.	氏 名 Student's Name	評 価 Grade <small>※いずれかに○印を付けてください。 い。 Circle a grade.</small>
		S A B C
		S A B C
		S A B C
		S A B C
		S A B C
		S A B C
		S A B C
		S A B C
		S A B C
		S A B C
		S A B C

単位認定申請書
Application for the Recognition of Credits

年 月 日
Date: (Year) (Month) (Day)

スマートソサイエティ実践科学研究所長 殿

To: The Dean of the Graduate School of Innovation and Practice for Smart Society

学生番号
Student Number
氏 名
Name

認定科目の単位等の認定を受けたいので、報告書等を添付の上、申請します。
I hereby apply for the recognition of credits for designated courses, with reports or other required documents attached hereto.

該当科目に○ Place a circle in the appropriate box.	認定科目 Designated Course	備 考 Remarks
	Internship	博士課程前期 Master's Course
	Fieldwork	博士課程前期 Master's Course
	Advanced Internship	博士課程後期 Doctoral Course
	Advanced Fieldwork	博士課程後期 Doctoral Course

主指導教員氏名 Name of the Supervisor			
主指導教員評価 Evaluation by the Supervisor	秀 優 良 可 Excellent, Very Good, Good, Fair	主指導教員確認 Confirmation of the Supervisor	印又は署名 Seal or Signature

Internship/Advanced Internship 実施計画書
Internship/Advanced Internship Implementation Plan

提出日 年 月 日
Date: Year Month day

学生番号 Student ID		氏名 Name	
実習先機関等 Institution			
実習地域 (国, 都道府県等) Place (country, prefecture, etc.)			
監督責任者 Supervisor(s) of the Internship			
実習期間 Period	From ____/____/____ To ____/____/____ yyyy / mm / dd yyyy / mm / dd * 実働日数/Number of days to work 日/days (1日8時間換算/Counted as eight hours/day)		
実習テーマ Theme			
実習目的, 計画, 期待される成果 Objective, Outline, Expected Outcomes			
主指導教員所見 Comments by the Supervisor			
主指導教員 氏名 Supervisor's Name			

Date _____年 _____月 _____日
 yyyy mm dd

広島大学大学院スマートソサイエティ実践科学研究院長 宛

To: The Dean of the Graduate School of Innovation and Practice for Smart Society, Hiroshima University

Internship/Advanced Internships 受入・修了証明書
 Certificate of Acceptance and Completion of the Internship/Advanced Internship

下記のとおり受け入れ、修了したことを証明します。

We certify that we have accepted the following individual and he/she has completed our international cooperative research.

記

受入学生氏名 : _____
 Name of the Student

受入条件等 Acceptance Conditions	実習期間 Period	_____年 _____月 _____日 ~ _____年 _____月 _____日 From: yyyy mm dd To: yyyy mm dd
	総実習時間 Total Hours	() 時間/hours
	実習テーマ Theme	
	交通費等 Transportation Expenses	大学（又は学生）の自己負担 Own Expense
	傷害・賠償責任保険等 Insurances	「学生教育研究災害傷害保険」及び「学研災付帯賠償責任保険」に加入。 （日本国外で実施する場合は、「海外旅行傷害保険」にも加入。） Students must purchase Personal Accident Insurance for Students Pursuing Education and Research, and Liability Insurance. In the case of conducting research outside of Japan, students must purchase additional University Contracted Travel Insurance.

住 所 Address _____

所属機関 Institution _____

所 属 長 Head of the Institution _____印

Internship/Advanced Internship 報告書
Report on the Internship/Advanced Internship

提出日 年 月 日
Date: Year Month day

学生番号 Student ID		氏名 Name	
実習先機関等 Institution			
実習地域 (国, 都道府県等) Place (country, prefecture, etc.)			
監督責任者 Supervisor(s) of the Internship			
実習期間 Period	From ____/____/____ To ____/____/____ yyyy / mm / dd yyyy / mm / dd * 実働日数/Number of days to work 日/days (1日8時間換算/Counted as eight hours/day)		
実習テーマ Theme			
<p>※報告書は A4・4 枚以上とする。A report must consist of a minimum of four pages (A4 format).</p> <p>インターンシップ計画の概要, 実施内容, 主な成果, インターンシップを通して学んだ点, 今後の課題など。 Outlines of the internship plan, the activities implemented, the major results from the internship, the major learning through the internship, future challenges, etc.</p>			
主指導教員所見 Comments by the Supervisor			
主指導教員 氏名 Supervisor's Name			

Fieldwork/Advanced Fieldwork 実施計画書
Fieldwork/Advanced Fieldwork Implementation Plan

提出日 年 月 日
Date: Year Month day

学生番号 Student ID		氏名 Name	
調査地 Field			
調査期間 Period	From ____/____/____ To ____/____/____ <small>yyyy / mm / dd yyyy / mm / dd</small> * 日数/ Number of days to work 日/days		
調査テーマ Theme			
調査目的, 計画, 期待される成果 Objective, Outline, Expected Outcomes			
主指導教員所見 Comments by the Supervisor <p style="text-align: center;">主指導教員 氏名 Supervisor's Name</p>			

Fieldwork/Advanced Fieldwork 報告書
Fieldwork/Advanced Fieldwork Report

提出日 年 月 日
Date: Year Month day

学生番号 Student ID		氏名 Name	
調査地 Field			
調査期間 Period	From ____/____/____ To ____/____/____ yyyy / mm / dd yyyy / mm / dd		
調査テーマ Theme	* 日数/ Number of days to work 日/days		
<p>※報告書は A4・4 枚以上とする。A report must consist of a minimum of four pages (A4 format).</p> <p>調査計画の概要, 調査の実施内容, 主な調査成果, 調査を通して学んだ点, 今後の課題など。 Outlines of the internship plan, the activities implemented, the major results from the internship, the major learning through the internship, future challenges, etc.</p>			
<p>主指導教員所見 Comments by the Supervisor</p> <p style="text-align: center;">主指導教員 氏名 Supervisor's Name</p>			

Internal Regulations of the Graduate School of Innovation and Practice for Smart Society Based on the Hiroshima University Degree Regulations

(Approved by the Dean of the Graduate School on April 1, 2023)

Internal Regulations of the Graduate School of Innovation and Practice for Smart Society Based on the Hiroshima University Degree Regulations

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Chapter 2: Degree Screening to Recognize the Completion of the Doctoral Course of the Graduate School of Innovation and Practice for Smart Society (Article 3–Article 8)

Chapter 3: Degree Screening through the Submitted Dissertation (Article 9–Article 15)

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Chapter 5: Miscellaneous Provisions (Article 21)

Supplementary Provisions

Chapter 1: General Provisions

(Purpose)

Article 1: The Internal Regulations prescribe the necessary articles regarding the conferment of academic degrees at the Graduate School of Innovation and Practice for Smart Society of Hiroshima University (hereafter, the “Graduate School”) based on Article 17 of the Hiroshima University Degree Regulations (hereafter, the “Regulations”) (Regulations No. 8 of April 1, 2004.).

(Names of the Majors Affixed when Conferring Degrees)

Article 2: The names of the majors affixed when the Graduate School confers degrees, based on Article 3 (2) of the Regulations, shall be as provided in the following list:

Names of the Majors	
Master	Doctor
Philosophy	Philosophy Philosophy in Engineering Philosophy in Informatics and Data Science Philosophy in Agriculture Philosophy in Health Science Philosophy in Medical Science Philosophy in Economics

Chapter 2: Degree Screening to Recognize the Completion of the Doctoral Course of the Graduate School of Innovation and Practice for Smart Society

(Qualification for Submitting the Doctoral Dissertation and Timing)

Article 3: Those who can submit a degree dissertation (hereafter, the “Dissertation”), based on Article 2 (2) of the Regulations, are those who have earned the credits prescribed in Article 16 of the By-laws of the Graduate School of Innovation and Practice for Smart Society at Hiroshima University (approved by the Dean of the Graduate School on April 1, 2023) (hereafter, the “designated Credits”), or those who will surely have earned the designated Credits by the end of the term when they submit the Dissertation and who have received guidance for the Dissertation preparation (hereafter, the “Research Guidance”).

2) Students shall submit the Dissertation by the due date designated by the graduate school. In principle, the due date for students who are expected to complete their course at the end of March is set for January while that for students who are expected to complete their course at the end of September is set for July. However, those who have been enrolled in their course for three years or more can complete the degree application procedure, as necessary.

3) Notwithstanding the prescriptions of the preceding paragraph, if the Dissertation due date falls on either of the following items, the due date shall be replaced with the weekday immediately before that date:

- 1) Sunday or Saturday
- 2) National holiday prescribed by the Act on National Holidays (Act No. 178, 1948)

(Procedure for Submitting Degree Dissertation)

Article 4: If those applicable to Article 3 (1) submit their Dissertation, then they shall submit the following documents to the Dean of the Graduate School, under approval from their supervisor:

- 1) Application for Review of Dissertation, Appended Format No. 1 - one (1) copy
- 2) Dissertation (bound in a file) - one (1) copy
- 3) List of Publications, Appended Format No. 2 - one (1) copy
- 4) Summary of Dissertation from Appended Format No.3 - one (1) copy
- 5) Resume from Appended Format No. 4 - one (1) copy
- 6) Reference Papers, if any - one (1) copy
- 7) Electronic data of (2) and (4) - one (1) set
- 8) Other required documents

(Acceptance of the Dissertation)

Article 5: When the Dissertation is submitted according to the preceding article, the Dean of the Graduate School shall consult the Faculty Meeting of the Graduate School of Innovation and Practice for Smart Society at Hiroshima University (hereafter, the "Faculty Meeting") regarding its acceptance.

(Screening Committee)

Article 6: If it has been decided to accept the Dissertation based on the prescription of the preceding article, then the Dean of the Graduate School shall refer the Dissertation to the Faculty Meeting.

- 2) The Faculty Meeting shall immediately establish a Screening Committee based on the reference described in the Article 5 (1) of the Regulations.
- 3) The Screening Committee shall consist of a chief referee and two (2) or more sub-referees.
- 4) The chief referee shall be selected from among the faculty members of the Graduate School.
- 5) At least one (1) of the sub-referees shall be selected from among the faculty members of other research fields of the Graduate School.
- 6) The selection of sub-referee(s) can include researchers from other graduate schools, universities, research institutes, companies, etc.

(Dissertation Screening Session)

Article 7: The Screening Committee shall organize an open dissertation screening session.

(Date of the Conferment of Academic Degree)

Article 8: Doctoral degrees shall be conferred on the following date to those who have passed the dissertation screening and the final examination:

- 1) In the case of those who have passed within the standard completion period: the date of the degree awarding ceremony. However, this can be replaced with the date of passing if there are any special circumstances deemed as legitimate by the Dean of the Graduate School after discussion with the Faculty Meeting.
- 2) In the case of those other than the above: Date of passing.

Chapter 3: Degree Screening Through the Submitted Dissertation

(Qualification for Applying for Degree Conferment)

Article 9: Those who apply to any of the following can apply for the conferment of a doctoral degree by submitting the Dissertation, based on Article 2 (3) of the Regulations.

- 1) Those who were enrolled in their doctoral course of the Graduate School for three (3) years or longer, had earned the designated Credits and had received the Research Guidance before withdrawing from the university.
- 2) Those who have completed their master's course and are equipped with research experience of three (3) years or longer.
- 3) Those who have graduated from the university and are equipped with research experience of five (5) years or longer.
- 4) Those who do not apply to the preceding three items and who are equipped with research experience of nine (9) years or longer.

(Procedure for Submitting the Dissertation)

Article 10: If those who applied to any of the items in the preceding article submit the Dissertation, then they shall submit the following documents to the President of Hiroshima University, through the Dean of the Graduate School:

- 1) Degree Application - one (1) copy
 - 2) Dissertation (bound in a file) - one (1) copy
 - 3) List of Publications - one (1) copy
 - 4) Summary of the Dissertation - one (1) copy
 - 5) Resume - one (1) copy
 - 6) Reference Papers, if any - two (2) copies
 - 7) Certificate of graduation from the last school (Certificate of completion of a graduate school course or a copy of the diploma) - one (1) copy
 - 8) Certificate issued by the supervisor or an equivalent person who can verify the research period - one (1) copy
 - 9) Electronic data of (2) and (4) - one (1) set
 - 10) Other required documents
- 2) Notwithstanding the prescriptions of the preceding paragraph, those who have graduated from Hiroshima University and those who have completed the Graduate School do not have to submit the documents prescribed in 7) and 8), especially if their research experience is only limited to Hiroshima University.

(Acceptance of the Dissertation)

Article 11: The prescriptions regarding the acceptance of the Dissertation shall be in line with the prescriptions of Article 5.

(Screening Committee and Interview Committee)

Article 12: The prescriptions regarding the Screening Committee shall be in line with the prescriptions of Article 6.

- 2) The Interview Committee with the prescriptions of Article 5 (2) shall consist of three or more members.
- 3) The Interview Committee shall consist of a chief referee and two (2) or more sub-referees of the Graduate School.
- 4) The chief referee shall be selected from among the faculty members of the Graduate School.
- 5) At least one (1) of the sub-referees shall be selected from among the faculty members of other research fields of the Graduate School.
- 6) The selection of sub-referee(s) can include researchers from other graduate schools, universities, research institutes, companies, etc.
- 7) The members of the Screening Committee are allowed to serve as members of the Interview Committee.

(Contents of the Examination or Interview and Eligible Period)

Article 13: The number of foreign languages used for the interview based on Article 6 (3) of the Regulations is one (1) at the Graduate School.

- 2) The number of eligible years based on Article 6 (4) of the Regulations is three (3) at the Graduate School.

Article 14: For those who have passed the dissertation screening and the interview or examination, doctoral degrees shall be conferred on the date of their passing.

(Dissertation Screening Committee)

Article 15: The Screening Committee shall organize an open dissertation screening session.

Chapter 4: Degree Screening to Recognize the Completion of the Master's Course of the Graduate School of Innovation and Practice for Smart Society

(Qualification for Submitting the Master's Thesis and Timing)

Article 16: Those who can submit a Master's Thesis based on Article 2 (2) of the Regulations are those who have earned the credits prescribed in Article 15 of the By-laws of the Graduate School of Innovation and Practice for Smart Society at Hiroshima University (approved by the Dean of the Graduate School on April 1, 2023) (hereafter, the "Designated Credits"), or those who will surely have earned the Designated Credits by the end of the term when they submit the Master's Thesis and who have received guidance for the Master's Thesis preparation (hereafter, the "Research Guidance").

- (2) Students shall submit the Master's Thesis by the due date designated by the graduate school. In principle, the due date for students who are expected to complete their course at the end of March is set for January, while that for students who are expected to complete their course at the end of September is set for July.
- (3) Notwithstanding the prescriptions of the preceding paragraph, if the Master's Thesis due date falls on either of the following items, then the due date shall be replaced with the weekday immediately before that date:
 - 1) Sunday or Saturday
 - 2) National holidays prescribed by the Act on National Holidays

(Procedure for Submitting Master Thesis)

Article 17: If those applicable to Article 16 (1) submit their Master's Thesis, then they shall submit the following documents to the Dean of the Graduate School, under approval from their supervisor:

- 1) Master's Thesis - one (1) copy
- 2) Other required documents

(Screening Committee)

Article 18: The Faculty Meeting shall establish a Master's Thesis Screening Committee.

- 2) The Master's Thesis Screening Committee shall consist of a chief referee and two (2) or more sub-referees.
- 3) The chief referee shall be selected from among the faculty members of the Graduate School.
- 4) At least one (1) of the sub-referees shall be selected from among the faculty members of other research fields of the Graduate School.
- 5) The selection of sub-referee(s) can include researchers from other graduate schools, universities, research institutes, companies, etc.

(Master's Thesis Screening Session)

Article 19: The Screening Committee shall organize an open Master's Thesis screening session.

(Date of the Conferment of Academic Degree)

Article 20: Master's degrees to those who have passed the Master's Thesis screening and the final examination shall be conferred on the date of the diploma awarding ceremony.

Chapter 5: Miscellaneous Provisions

(Other)

Article 21: Any necessary matters relevant to the conferment of academic degrees not stipulated in the present internal regulations shall be determined following deliberations by the Faculty Meeting.

Supplementary Provisions

The present internal regulations shall come into force on April 1, 2023.

年 月 日

Date:

広島大学大学院スマートソサイエティ実践科学研究所長 殿
To: Dean, Graduate School of Innovation and Practice for Smart Society, Hiroshima University

広島大学大学院スマートソサイエティ実践科学研究所
Graduate School of Innovation and Practice for Smart Society, Hiroshima University
博士課程後期
Doctoral Course
氏 名
Name

㊟
Seal

学 位 論 文 審 査 願
Application for Review of Dissertation

広島大学大学院スマートソサイエティ実践科学研究所博士課程後期修了の認定を受けるため、下記のとおり関係書類を提出いたしますので、審査くださるようお願いいたします。

In order to receive approval for completion of the doctoral course of the Graduate School of Innovation and Practice for Smart Society, Hiroshima University, I submit the related documents listed below for review.

記

博 士 論 文 Dissertation	1通 1 copy
論 文 目 録 List of Publications	1通 1 copy
論文の要旨 (論文の内容の要旨) Summary of the Dissertation (Summary of Dissertation Contents)	1通 1 copy
履 歴 書 Resume	1通 1 copy
参 考 論 文 Reference Papers	1通 1 copy

論 文 目 録
List of Publications

氏 名
Name

印
Seal

博 士 論 文
Dissertation

論 文 題 目
Dissertation Title

公 表 の 方 法
Method of Publication

参 考 論 文
Reference Papers

備考 公表の方法：刊行及び学術雑誌等への掲載予定など

Remark: Method of Publication includes your plans for publishing your paper, such as having it printed in academic magazines and other publications.

論文の要旨（論文の内容の要旨）
Summary of the Dissertation (Summary of Dissertation Contents)

論 文 題 目
Dissertation Title

氏 名
Name

印
Seal

備考 論文の要旨はA4判用紙を使用し、4,000字以内とする。ただし、英文の場合は1,500語以内とする。

Remark: The summary of the dissertation should be written on A4-size pages and should not exceed 4,000 Japanese characters. When written in English, it should not exceed 1,500 words.

履 歴 書
Resume

本籍（都道府県名，外国人は国名を記載）

Legal Domicile (Japanese student: your prefecture; international student: your country)

現住所(Current Address)

フリガナ(Name in *Katakana*)

氏 名 (Name)

生年月日(Date of Birth)

男 ・ 女

Male/Female

学 歴

Academic History

職 歴

Job History

研 究 歴

Research History

賞 罰

Award and Punishment

上記のとおり相違ありません。

I attest that the above information is true.

年 月 日

Date:

氏 名

Name

印

Seal

- 備考
- 1) 履歴事項は，高等学校卒業後の履歴について年次を追って記載すること。
For your academic history, give a chronological account beginning after your graduation from high school.
 - 2) 本学大学院博士課程の教育課程を終えて退学した者は，単位修得証明書を添付すること。
Attach a Certificate of Acquisition of Credits in case an applicant who had been enrolled in a doctoral course at this Graduate School for a period exceeding the predetermined term of study, acquired predetermined credits, and withdrawn after receiving instruction on writing a dissertation.
 - 3) 用紙はA4とし，横書きとすること。
If writing in Japanese, use A4 paper and write horizontally.

Research Ethics Education

In August 2014, the “Guidelines for Responding to Misconduct in Research” were adopted by the Ministry of Education, Culture, Sports, Science, and Technology. Accordingly, in AY 2015, Hiroshima University made it mandatory for faculty members engaged in research activities to receive research ethics education.

In addition, the “Outline of the 3rd Graduate School Education Promotion Measures” (introduced by the Ministry of Education, Culture, Sports, Science, and Technology in March 2016) required universities to make more efforts in providing research ethics education and improving their systems for supervising and examining doctoral theses, in order to ensure that students are fully aware of the norms regarding research ethics and to secure the international credibility of doctoral degrees granted by the universities. In this regard, Hiroshima University has introduced Research Ethics Education for Students.

At the Graduate School of Innovation and Practice for Smart Society, we provide Research Ethics Education for Students as follows:

① Research Ethics Education: Graduate School Students - Basic

Period: Within one month after admission

Participant unit: All freshmen

Style: Students will take Basic Research Ethics Education offered through the Hiroshima University online learning system (Moodle).

Attendance check: Students must take a confirmation test for this course and complete the course with a score of 80 points or higher.

Other: If you have already received Research Ethics Education (Graduate School Students - Basic) at the time of enrollment in your master’s course, then you are exempt from receiving Research Ethics Education (Graduate School Students – Basic) at the time of enrollment in your doctoral course.

② Research Ethics Education: Graduate School Students – Advanced (M) and Advanced (D)

Period: Students in the master’s course must receive Research Ethics Education (Graduate School Students – Advanced [M]) before preparing their master’s theses, while students in the doctoral course must receive Research Ethics Education (Graduate School Students – Advanced [D]) before preparing their doctoral dissertations.

(Students expected to complete their courses in March/September must receive the necessary education by October/April in their final academic year, respectively.)

Participant unit: All students

Style: Students will take either A or B by the instruction of the academic supervisor.

A) The academic supervisor conducts the course by the debating style.

The faculty and students will carefully read the JSPS textbook "For the Sound Development of Science -The Attitude of a Conscientious Scientist-" (Section IV "Presenting Research Results") and the students will give a summary and discuss it with the faculty to deepen their understanding of the practice of research ethics based on the characteristics of each field.

B) Students will take APRIN e-learning.

Among the following units, students must take at least one unit.

Field	Division	Units
Humanities and Social Sciences	Responsible Research Practices: Basics (Humanities and Social Sciences RCR)	Plagiarism in Humanities and Social Sciences_RCR-H
Science, Engineering and Agriculture	Responsible Research Practices: Basics (RCR Science and Engineering)	Responsible Authorship_RCR-S
Medical Science	Responsible Research Practices: Basics (RCR Biomedical Science)	Authorship_RCR

Attendance check: Completion Certificates are used to confirm students’ attendance.

Decision Criteria for Awarding Degrees and Evaluation Standards of the Graduate School of Innovation and Practice for Smart Society at Hiroshima University

(Approved by the Dean of the Graduate School on April 1, 2023)

(Decision Criteria for Awarding Master's Degrees)

Article 1: At the Graduate School of Innovation and Practice for Smart Society at Hiroshima University (hereafter the "Graduate School"), we shall award a master's degree to those who are deemed appropriate after the screening process for the master's degree based on the following decision criteria:

- 1) Those who will earn a master's degree shall be equipped with sufficient study skills, high-level specialized capabilities in their respective areas based on the Diploma Policy, wide intelligence, and an ability to make comprehensive judgments.
- 2) Those who will earn a master's degree shall have their master's theses evaluated based on the evaluation standards in Article 2. In addition, they shall present their academic research results at a presentation or screening session in their specialized field and respond to any inquiries, both logically and clearly.

(Evaluation Standards for Master's Degree Theses)

Article 2: The Graduate School evaluates a master's thesis based on the following evaluation points:

- 1) Whether or not the student has acquired sufficient knowledge as a master's degree holder in relevant research field and has obtained the ability to identify problems and clearly solve them.
- 2) Whether the student's research theme is appropriate for the degree for which he/she has applied, and whether he/she was clearly aware of relevant problems when writing the thesis.
- 3) Whether the thesis descriptions (e.g., main text, charts, tables, quotations, etc.) are sufficient and appropriate, and whether the entire thesis has consistency in terms of logical composition from the beginning to the end.
- 4) Whether the student has adopted an appropriate research method, survey/experimentation method, and demonstration method when researching his/her theme, and included specific analyses/discussions based on them.
- 5) Whether the thesis has its own value from a logical or demonstrative perspective in the relevant research field.

(Decision Criteria for Awarding Doctoral Degrees)

Article 3: At the Graduate School, we shall award a doctoral degree to those who are deemed appropriate after the screening process for the doctoral degree based on the following decision criteria:

- 1) Those who will earn a doctoral degree shall be equipped with cross-disciplinary learning from an international perspective (based on the Diploma Policy) and boast high-level capabilities with which they can independently perform research in their specialized areas.
- 2) Those who will earn a doctoral degree shall have their doctoral dissertation evaluated based on the evaluation standards in Article 4. In addition, they shall present their academic research results at a presentation or screening session in their specialized field and respond to any inquiries, both logically and clearly.

(Evaluation Standards for Dissertation)

Article 4: The Graduate School conducts a doctoral dissertation based on the following evaluation points:

- 1) Whether the student has acquired sufficient knowledge as a doctoral degree holder in the relevant research field, and whether he/she has obtained the ability to identify problems and clearly solve them.
- 2) Whether the student's research theme is appropriate for the degree for which he/she has applied, and whether he/she was clearly aware of relevant problems when writing the dissertation.
- 3) Whether the dissertation descriptions (e.g., main text, charts, tables, quotations, etc.) are sufficient

and appropriate, whether the entire dissertation has consistency in terms of logical composition, and whether the dissertation leads to a logical clear conclusion.

- 4) Whether the student has adopted an appropriate research method, survey/experimentation method, and demonstration method when researching his/her theme, and whether he/she formulated specific analyses/discussions.
- 5) Whether the dissertation has its own value when seen from a logical or demonstrative perspective in the relevant research field, and when based on international academic standards and a cross-disciplinary perspective.

(Others)

Article 5: The procedure for submitting a master's thesis and a doctoral thesis shall be separately indicated.

Supplementary Provisions

The present internal regulations shall come into force on April 1, 2023.

Master's Course

By-Laws for the Completion, Appended Table (Related to Article 4, and 5)

Master's Course

Subject Type		Subjects	Eligible Class Year	No. of Credits		No. of Required Credits	
				Compulsory	Compulsory Elective		
Common Graduate Subjects	Sustainable Development Subjects	World Peace and HIROSHIMA	1·2		1	1 or more credits	2 or more credits
		Japanese Experience of Social Development- Economy, Infrastructure, and Peace	1·2		1		
		Japanese Experience of Human Development-Culture, Education, and Health	1·2		1		
	Career Development and Data Literacy Subjects	Data Literacy	1·2		1	1 or more credits	
		Data Literacy in Medicine	1·2		1		
		Information security	1·2		1		
		Introduction to MOT	1·2		1		
Basic Module	Arts & Science for Evidence-Based Decision Making	1·2		2	6 or more credits		
	Data Analytics for Sustainable Development	1·2		2			
	Geographic Information System Technology	1·2		2			
	Practical Machine Learning	1·2		2			
	Artificial and Natural Intelligence	1·2		2			
	Academic Writing I	1·2		1			
Specialization Module	Advanced Natural Language Processing	1·2		2	10 or more credits		
	Advanced Learning Systems	1·2		2			
	Advanced Biosystems Engineering	1·2		2			
	Advanced Data-driven Systems Design	1·2		2			
	Advanced Smart Sensing	1·2		2			
	Advanced Robotics	1·2		2			
	Transportation Engineering	1·2		2			
	Transportation Planning	1·2		2			
	Fundamentals of Survey Methodology	1·2		2			
	Infrastructure and Regional Planning	1·2		2			
	Smart Urban Development	1·2		2			
	Environmental Health Science	1·2		2			
	Environmental Epidemiology	1·2		2			
	Advanced Energy Plant	1·2		2			
	Advanced Thermal Engineering	1·2		2			
	Energy Science and Technology	1·2		2			
	Biomass Energy Technology	1·2		2			
	Advanced Environmental Systems Engineering	1·2		2			
	Advanced Energy Conversion Systems	1·2		2			
	Sustainable Architecture A	1·2		2			
	Assisted Reproductive Technology for Animal Production	1·2		1			
	Molecular Genetics for Animal Production	1·2		1			
	Smart Livestock Farming	1·2		1			
	Smart Crop Production	1·2		1			
	Sustainable Marine Environment	1·2		1			
	Sustainable Production of Fisheries Resources	1·2		1			
	Microbiology for Food Safety	1·2		1			
	Food Science and Brain Health	1·2		1			
	Exercises in Smart Agriculture I	1·2		1			
	Exercises in Smart Agriculture II	1·2		1			
	Botany Resources for the Future	1·2		2			
	Management and Conservation of Ecosystems	1·2		2			
	Introduction and Topics in Environmental Genomics and Ecology	1·2		1			
	Epidemiology and Disease Prevention	1·2		2			
	Lecture on Oral Health Sciences	1·2		2			
	Global Health Challenges and Solutions 1	1·2		2			
	Global Rehabilitation	1·2		2			
	Seminar on Health Policy & Global Health	1·2		1			
	Basic Biostatistics and Basic Clinical Statistics	1·2		1			
	Exercise and Seminar on Epidemiological Research and It's Analysis	1·2		2			
	Basic Epidemiology and Practice	1·2		2			
	Research Methods	1·2		2			
Applied Econometrics I	1·2		2				
Applied Econometrics II	1·2		2				
Development Microeconomics I	1·2		2				
Development Microeconomics II	1·2		2				
Development Macroeconomics I	1·2		2				
Development Macroeconomics II	1·2		2				
Agriculture Production Economics	1·2		2				
Peace, Conflict, and the Environment	1·2		2				
Urban Policy	1·2		2				

Subject Type	Subjects	Eligible Class Year	No. of Credits		No. of Required Credits
			Compulsory	Compulsory Elective	
Practical Module	Internship	1・2		2	4 or more credits
	Fieldwork	1・2		2	
	Young Professionals Preparing for Careers in International Organizations A	1・2		2	
	Young Professionals Preparing for Careers in International Organizations B	1・2		2	
	Developing Designing Ability	1・2		2	
Master thesis Module	Seminar on Master Thesis	1～2	4		4 credits
Primary Advisor Assigned Subject from Basic Module, Specialization Module and Practical Module					4 or more credits

【Registration Method and Completion Requirements】

To complete your master's course, you need to earn 30 or more credits based on the following requirements, receive necessary research guidance, and pass the master's thesis screening and the final examination or the qualifying examination for research in the doctoral course.

Necessary No. of Credits for Completing: 30 or more credits

(1) Common Graduate Subjects : 2 or more credits

- Sustainable Development Subject: 1 or more credits
- Career Development and Data Literacy Subject: 1 or more credits

(2) Basic Module : 6 or more credits

- 2 or more credits from 「Geographic Information System Technology」 , 「Practical Machine Learning」 and 「Artificial and Natural Intelligence」
- 2 or more credits from 「Arts & Science for Evidence-Based Decision Making」 , 「Data Analytics for Sustainable Development」 and 「Academic Writing Ⅰ」

(3) Specialization Module: 10 or more credits

(4) Practical Module: 4 or more credits

(5) Master thesis Module: 4 credits

(6) Primary Advisor Assigned Subject from Basic Module, Specialization Module and Practical Module: 4 or more credits

Graduate School of Innovation and Practice for Smart Society Completion Schedule (Master's Courses)

(Master's Courses)

Year	Enrollment in Apr.	Enrollment in Oct.	Student	Subadvisor Group	Faculty Committee/ Faculty Council, etc.
First Year (1st and 2nd Semester)	Apr.	Oct.	Guidance	Give advice for class registration planning	Inform students of education and research targets
			Take "Research Ethics Education (Graduate School Students - Basic)"		
			Submit a Notification of the Research Title (Including the Supervising Group)	Approve the Notification of the Research Title	
			Establish class registration plan and research plan	Supervise class registration and research	Approve the Notification of the Supervising Group
	Oct.	Apr.	Consider class registration plan and research plan	Supervise class registration and research	
	Nov. - Mar.	May - Sep.	Interim presentation	Supervise presentation	
			Review research plan	Supervise research	
Second Year (3rd and 4th Semester)	Apr.	Oct.	Consider class registration plan	Supervise class registration	
			Establish master's thesis writing plan	Give supervision & advice for the master's thesis writing plan	
	Sep.	Mar.	Receive Research Ethics Education (Graduate School Students - Advanced)	Issue a Research Ethics Education Completion Certificate	
			Submit Outline of master's thesis		Approve the Outline of master's thesis
	Oct.	Apr.	Consider class registration plan	Supervise class registration	
			Write the master's thesis	Supervise thesis writing	Organize the Screening Committee
	Jan.	Jul.	Submit the master's thesis		
			Submit a Summary of Master's Thesis		
	Feb.	Aug.	Given oral presentation for the master's thesis (public screening)	Screening and report of the result	Screen by the Screening Committee
			Screening and Final examination Earn the required credits		Final screening by Faculty Council
Mar.	Sep.	Complete the master's course and earn the degree			

Note 1. This schedule shows the procedures to complete the master course of the Graduate School of Innovation and Practice for Smart Society (the "Graduate School").

Note 2. In addition to the "Decision Criteria for Awarding Degrees and Evaluation Standards" in the Student Handbook, students should confirm the basic requirements for completion of the Graduate School of Innovation and Practice for Smart Society as stipulated in the "Hiroshima University Graduate School Regulations", "Hiroshima University Degree Regulations", "By-laws of the Graduate School of Innovation and Practice for Smart Society", "Internal Regulations of the Graduate School of Innovation and Practice for Smart Society".

Note 3. Students should check relevant notices each time provided through My Momiji about the completion procedures of the Graduate School informed by Support Office for the fields of International Development and Cooperation.

Doctoral Course

Doctoral Course

Subject Type		Subjects	Eligible Class Year	No. of Credits		No. of Required Credits	
				Compulsory	Compulsory Elective		
Common Graduate Subjects	Sustainable Development Subjects	SDGs Ideas Mining Seminar for Specialists	1・2・3		1	1 or more credits	2 or more credits
		Regional development seminar from the viewpoint of the SDGs	1・2・3		1		
		Seeking Universal Peace	1・2・3		1		
	Career Development and Data Literacy Subjects	Utilization of data Literacy in Medicine	1・2・3		1	1 or more credits	
		Skills and Arts of Leadership	1・2・3		1		
		Innovation Practice	1・2・3		2		
		Introduction to business creation	1・2・3		1		
Practical Knowledge Development Module	Management and Entrepreneurship	1・2・3		1	1 or more credits		
	Technology Strategy and R&D Management	1・2・3		1			
	Academic Writing II	1・2・3		1			
Practical Knowledge Application Module	Idea Mining Workshop	1・2・3		2	2 or more credits		
	Advanced Internship	1・2・3		2			
	Advanced Fieldwork	1・2・3		2			
Dissertation Module	Seminar on Doctoral Dissertation	1~3	12		12 credits		

【Registration Method and Completion Requirements】

To complete doctoral course, you need to earn 17 or more credits based on the following requirements, receive necessary research guidance, and pass the doctoral thesis screening and the final examination.

Necessary No. of Credits for Completing: 17 or more credits

- (1) Common Graduate Subjects : 2 or more credits
 - Sustainable Development Subjects: 1 or more credits
 - Career Development and Data Literacy Subjects: 1 or more credits
- (2) Practical Knowledge Development Module: 1 or more credits
- (3) Practical Knowledge Application Module : 2 or more credits
- (4) Dissertation Module: 12 credits

Graduate School of Innovation and Practice for Smart Society Completion Schedule (Doctoral Courses)

(Doctoral Courses)

Year	Enrollment in Apr.	Enrollment in Oct.	Student	Supervisor/ Subadvisor Group	Faculty Committee/ Faculty Council, etc.
First Year (1st and 2nd Semester)	Apr.	Oct.	Guidance・Planning Seminar of the Research Theme	Give advice for class registration and research	Inform students of education and research targets
			Receive Research Ethics Education (Graduate School Students - Basic)		
			Submit a Notification of the Research Title (including the Supervising Group)	Approve the Notification of the Research Title	Approve the Notification of the Supervising Group)
			Consider class registration plan and establish research plan	Supervise class registration planning and research	
	Oct.	Apr.	Consider class registration plan and research plan	Supervise class registration and research plan	
	Nov. - Mar.	May - Sep.	Interim presentation	Supervise presentation	
Second Year (3rd and 4th Semester)	Apr.	Oct.	Consider class registration plan and Reestablish research plan	Supervise class registration planning and research	
	Oct.	Apr.	Consider class registration plan	Supervise class registration	
	Nov. - Dec.	May - Jun.	Interim presentation	Supervise presentation	
	Mar.	Aug.	Receive Research Ethics Education (Graduate School Students - Advanced) (until around half a year before submitting a doctoral dissertation)	Issue a Research Ethics Education Completion Certificate	
Third Year (5th and 6th Semester)	Dec.	Jun.	Ph.D. Candidate Examination (Implement from 3 rd to 5 th Semester in general)	Examination Implementation and Announce the results	
	Sep.	Mar.			Screen by the Screening Committee
	Oct. - Nov.	Apr. - May	Primary Screening	Screening Implementation and Announce the results	Screen by the Screening Committee
	Jan.	Jul.	Submit the doctoral dissertation and other necessary documents		Accept the doctoral dissertation and Organize the Screening Committee
	Jan. - Feb.	Jul. - Aug.	Dissertation screening (Open screening) and Final Examination	Screen the dissertation and examination and Announce the results	Screen by the Screening Committee
			(Submit the bound version of the dissertation by the final data)		
			Earn the required credits		Final screening by Faculty Council
Mar.	Sep.	Complete the doctoral course and earn the degree			

Note 1. This schedule shows the procedures to complete the doctoral course of the Graduate School of Innovation and Practice for Smart Society (the “Graduate School”).

Note 2. In addition to the “Decision Criteria for Awarding Degrees and Evaluation Standards” in the Student Handbook, students should confirm the basic requirements for completion of the Graduate School of Innovation and Practice for Smart Society as stipulated in the "Hiroshima University Graduate School Regulations", "Hiroshima University Degree Regulations", "By-laws of the Graduate School of Innovation and Practice for Smart Society", "Internal Regulations of the Graduate School of Innovation and Practice for Smart Society".

Note 3. Students should check relevant notices each time provided through My Momiji about the completion procedures of the Graduate School informed by Support Office for the fields of International Development and Cooperation.

Requirements for Awarding Degrees and Criteria for Applying for Doctoral Degrees from the Graduate School of Innovation and Practice for Smart Society at Hiroshima University

Approved by the Dean of the Graduate School on April 1, 2023

(Purpose)

Article 1: The purpose of the present requirements is to stipulate the necessary matters not specified in By-laws of the Graduate School of Innovation and Practice for Smart Society (approved by the Dean of the Graduate School on April 1, 2023, hereafter, the “By-laws”) and Internal Regulations of the Graduate School of Innovation and Practice for Smart Society at Hiroshima University (approved by the Dean of the Graduate School on April 1, 2023) regarding the requirements for awarding degrees and criteria for applying for doctoral degrees from the Graduate School of Innovation and Practice for Smart Society at Hiroshima University.

(Requirements for Awarding Degrees)

Article 2: The requirements for awarding Doctoral Degrees shall be as follows.

- (1) Must satisfy each standard specified in the Article 3 and 4 of Decision Criteria for Awarding Degrees and Evaluation Standards for Degree Theses of the Graduate School of Innovation and Practice for Smart Society at Hiroshima University (approved by the Dean of the Graduate School on April 1, 2023).
- (2) For doctoral degrees earned by completing the course, must satisfy the requirements of the completion specified in the Article 16 of By-laws.
- (3) For doctoral degrees earned mainly by writing a dissertation, must submit a doctoral dissertation and pass the dissertation screening and final examination.
- (4) A degree applicant must satisfy the criteria set by each research field in the following table before he/she takes the Preliminary Examination of Doctoral Dissertation.

Research Field	Doctoral Degree by Completing the Required Courses	Doctoral Degree Mainly by Writing a Dissertation
Cyber Physical System	In principle, at least three (3) peer-reviewed academic papers published in journals of related academic associations, etc., or international conference papers (including those that have been decided to be published, with at least one of which must be a journal paper of first authorship).	In principle, at least four (4) peer-reviewed academic papers published in journals of related academic associations, etc. (including those that have been decided to be published, with at least one (1) of which must be a paper of first authorship), and at least one (1) international conference paper of first authorship (including those that have been decided to be published).
Smart Mobility	At least two (2) peer-reviewed academic papers published in journals of related academic associations, etc. (including those that have been decided to be published, both of which must be papers of first authorship, and at least one (1) paper with impact factors).	At least three (3) peer-reviewed academic papers published in journals of related academic associations, etc. (including those that have been decided to be published, all of which must be papers of first or corresponding authorship, and at least one (1) paper with impact factors).
Smart Energy	At least two (2) peer-reviewed academic papers published in journals of related academic associations, etc. (including those that have been decided to be published, with at least one (1) of which must be a paper of first authorship).	At least three (3) peer-reviewed academic papers published in journals of related academic associations, etc. (including those that have been decided to be published, with at least one (1) of which must be a paper of first authorship).
Smart Agriculture	At least one (1) reference paper published in peer-reviewed journals. (including one (1) that has been decided to be published, and that of which must be a paper of first authorship).	At least two (2) reference papers published in peer-reviewed journals. (including those that have been decided to be published, both of which must be papers of first or corresponding authorship).

Global Health and Medical Science	At least one (1) paper published in the journal of either (i) or (ii) (including one (1) that has been decided to be published). (i) Journals searchable by “Journal Citation Reports.” (http://www.isiknowledge.com/JCR) (ii) “Hiroshima Journal of Medical Science.”	At least one (1) paper published in the journal of (i) (including one (1) that has been decided to be published). (i) Journals searchable by “Journal Citation Reports” (http://www.isiknowledge.com/JCR).
Social Innovation Science	At least one (1) paper published in SCI or SSCI (including one (1) that has been accepted). However, at least two (2) papers if those are published in a peer-reviewed journal other than SCI or SSCI.	At least three (3) papers or equivalent writing works published in peer-reviewed journals. In addition, at least one (1) paper with impact factors (at least one (1) citation if those were published in ESCI).

(5) A degree applicant must satisfy the necessary requirements set by each research field.

(Degrees to be conferred)

Article 3: In the case of a doctoral degree by mainly completing the required courses and a doctoral degree mainly by writing a dissertation, the most appropriate degree among those listed in the right column of the following table shall be conferred, according to the research field to which the dissertation committee chair belongs and the contents of the doctoral dissertation.

Research Fields	Degrees
Cyber Physical System	Doctor of Philosophy Doctor of Philosophy in Engineering Doctor of Philosophy in Informatics and Data Science
Smart Mobility	Doctor of Philosophy Doctor of Philosophy in Engineering
Smart Energy	Doctor of Philosophy Doctor of Philosophy in Engineering
Smart Agriculture	Doctor of Philosophy Doctor of Philosophy in Agriculture
Global Health and Medical Science	Doctor of Philosophy Doctor of Philosophy in Health Science Doctor of Philosophy in Medical Science
Social Innovation Science	Doctor of Philosophy Doctor of Philosophy in Economics

(Other)

Article 4: Any necessary matters relevant to the details of the procedures of doctoral degree dissertation by completing the required courses not stipulated in the present requirements shall be determined by Guidelines for Completion of the Doctoral Course of the Graduate School of Innovation and Practice for Smart Society at Hiroshima University (Approved by the Dean of the Graduate School on April 1, 2023)

(2) If a case arises that makes it difficult to comply with this requirement, it shall be determined deliberations by the Admissions and Academic Affairs Committee.

Supplementary Provisions

The present internal regulations shall come into force on April 1, 2023.

Guidelines for Completion of the Doctoral Course of the Graduate School of Innovation and Practice for Smart Society at Hiroshima University

Approved by the Dean of the Graduate School on April 1, 2023

These guidelines include the procedures for completing the doctoral course of the Graduate School of Innovation and Practice for Smart Society (hereafter, the “Graduate School”). In addition to the Requirements for Awarding Degrees and Criteria for Applying for Degrees (Doctoral Course) in the Student Handbook, students should confirm the basic requirements for completing the doctoral course of the Graduate School, as stipulated in the Hiroshima University Graduate School Regulations, the Hiroshima University Degree Regulations, the By-laws of the Graduate School of Innovation and Practice for Smart Society, the Internal Regulations of the Graduate School of Innovation and Practice for Smart Society.

1. Submission of the Research Title

Students are required to submit a Notification of the Research Title to the Dean of the Graduate School (the Support Office) after consultation with their supervisor, as soon as possible after admission. The submission should be made within approximately one month after admission, and students should follow the instructions of the Support Office regarding detailed deadlines and submission methods.

2. Faculty Advisor Group

- The group of supervisors shall consist of the supervisor, who is a faculty member of the Graduate School, and two or more sub-advisors (including one or more members of different research fields).
- In principle, students will be placed in the research field to which the supervisor belongs. This is out of the six research fields of the Graduate School.
- Since a group of supervisors, including the faculty members in different research fields, provide guidance to students in the Graduate School, it is expected that students’ research will be a fusion and collaboration of multiple research fields. Thus, it is possible that the students’ research field may change from that of the supervisor to that of the sub-advisor during the course of the research. In such a case, the sub-advisor who belongs to the research field in which the student focuses his/her research should serve as the chief referee of the screening committee.

3. Doctoral Candidate Examinations

(1) Doctoral Candidate Examinations

- Under the guidance of the supervisor, the doctoral candidate examinations are held during the following periods between the third and fifth semesters.
- The Doctoral Candidate Examination Committee shall be organized by the group of supervisors. The committee may include faculty members other than the group of supervisors, etc., as necessary.
- The Doctoral Candidate Examination is conducted by having the student present his/her research and examining the student’s eligibility as a doctoral candidate from multiple perspectives, including the student’s research progress, level of understanding, and originality of the research.

【Period of Doctoral Candidate Examinations】

First Semester: April 1 to August 31.

Second semester: October 1 to the end of February.

(2) Report of Doctoral Candidate Examination Results

- The Doctoral Candidate Examination Committee shall determine whether the candidate passed or failed the examination and report the results to the faculty committee of the research field by the report on the results of the Doctoral Candidate Examination.
- The chair of the Doctoral Candidate Examination Committee shall submit the report on the results of the Doctoral Candidate Examination to the dean of the Graduate School (the Support Office) within the implementation period, after the approval of the research field faculty committee to which the chair belongs.

4. Doctoral Dissertation Submission Requirements

- Students must fulfill the requirements for submitting a doctoral dissertation, as stipulated by their particular research field, before taking the Preliminary Examination of Doctoral Dissertation.
- Please refer to the Requirements for Awarding Degrees and Criteria for Applying for Doctoral Degrees from the Graduate School of Innovation and Practice for Smart Society at Hiroshima University for the doctoral dissertation submission requirements and the types of degrees that can be obtained in each research field.

5. Preliminary Examination of a Doctoral Dissertation

(1) Preliminary Examination

- Those who intend to submit a doctoral dissertation must undergo a preliminary examination during the following period and in the semester in which they are scheduled to complete the doctoral course.
- In principle, a preliminary examination is open to the public.
- In principle, the members of the Preliminary Doctoral Dissertation Committee shall have the same composition as that of the Doctoral Dissertation Committee.

【Period of Preliminary Examination】

For students scheduled to complete in March: October 1 to November 30.

For students scheduled to complete in September: April 1 to May 31.

(2) Report on the Results of the Preliminary Examination and Notification of the Members of the Doctoral Dissertation Committee

- The Doctoral Preliminary Examination Committee must determine whether the examination was successful and report the results of the preliminary examination to the faculty committee of the research field by the Report of Preliminary Examination Results.
- The chair of the Preliminary Doctoral Dissertation Examination Committee must submit the Report of Preliminary Examination Results to the Dean of the Graduate School (the Support Office) by the end of the examination period, after obtaining the approval of the faculty committee of the research field to which the chair belongs.
- The chair must also notify the Dean of the Graduate School (the Support Office) of the members of the Doctoral Dissertation Committee.

6. Submission of a Doctoral Dissertation

- (1) Those who have passed the preliminary examination and plan to undertake the examination of Doctoral Dissertation must submit the documents to the Dean of the Graduate School (the Support Office), with the approval of their supervisor, by the following submission deadline of the semester in which they plan to complete the doctoral course.

【Submission Deadlines for Doctoral Dissertations, etc.】

For students scheduled to complete in March: January 5

For students scheduled to complete in September: July 1

(2) Documents to be submitted:

- 1) Degree Application - one (1) copy
- 2) Dissertation (bound in a file) - one (1) copy and PDF
- 3) List of Publications - one (1) copy
- 4) Summary of the Dissertation - one (1) copy and PDF
- 5) Resume - one (1) copy
- 6) Reference Papers, if any
 - * Submit copies of the papers listed in the Reference Papers of (3) List of Publications
- 7) Doctoral Dissertation Submission and Publication Confirmation (Application Form) - one (1) copy

(3) Acceptance and Review of the Doctoral Dissertation

When a doctoral dissertation is submitted, the Faculty Committee shall deliberate whether it should be accepted according to the Summary of the Dissertation.

(4) Submission and Review of Doctoral Dissertation (Final Version)

- Students must submit the final version of their doctoral dissertation in PDF format to the Dean of the Graduate School (the Support Office) by the following deadline in the semester in which they plan to complete the doctoral course.
- The final version of the dissertation shall be made available for inspection.

【Deadline for submission of doctoral thesis (final version)】

For students scheduled to complete in March: February 20.

For students scheduled to complete in September: August 20.

7. Dissertation Screening and Final Examination

(1) Establishment of the Screening Committee

- The Faculty Meeting shall establish a Screening Committee that consists of a chief referee and two (2) or more sub-referees. At least one (1) of the sub-referees shall be selected from among the faculty members of other research fields of the Graduate School. The selection of sub-referees(s) can include researchers from other graduate school, universities, research institutes, companies, etc.

(2) Conduct of the Dissertation Screening Session

- Students will present their doctoral dissertation and answer questions at the doctoral dissertation screening session (open to the public) held by the Screening Committee.
- The date and time of the Doctoral Dissertation and Final Examination (open to the public) will be set by the Screening Committee and publicly announced.
- The student or supervisor shall hand in the necessary documents for the examination of the doctoral dissertation to each member of the Screening Committee.

(3) Final Examination

- Students shall take a final examination (mainly an oral examination) by the Screening Committee.

(4) Screening and Final Examination Report from the Screening Committee

- The Screening Committee must complete the screening and final examination by the deadline for submission of the doctoral dissertation (final version) and report to the research field faculty committee by the Summary of the Results of the Dissertation Screening and the Summary of the Results of the Final Examination.
- The chief referee on the Screening Committee will submit the Summary of the Results of the Thesis Screening and the Summary of the Results of the Final Examination to the Faculty Meeting (the Support Office), after obtaining the approval of the Faculty Meeting of the research field to which the chief referee belongs.

8. Screening and Conferment of Doctoral Degrees by the Faculty Meeting

- The Faculty Meeting shall distribute the submitted Summary of Results of Thesis Screening and the Summary of the Result of the Final Examination to the members of the Faculty Meeting at least seven days prior to the date of the Faculty Meeting (in the beginning of March or September).
- A resolution for the conferment of doctoral degrees requires the attendance of at least two-thirds of the members of the Faculty Meeting (excluding those on overseas business trips or under long-term medical treatment) and a two-thirds majority of the votes cast by those present.
- The prescribed doctoral degree (Doctor by Completing the Course) is awarded to those who have passed the screening by the Faculty Meeting.
- Doctoral degrees shall be conferred on the following date.

【Date of the Conferment of Doctoral Degree】

Those who have passed within the standard completion period: Date of the diploma awarding ceremony in March or September (within three years (including early completion)).

Those who have passed beyond the standard completion period: Date of passing.

9. Notes

- Notwithstanding, each deadline in the guidelines is 5:15 p.m. on the date in question. In addition, if the due date falls on either a Sunday or Saturday or on a National holiday prescribed by the Act on National Holidays (Act No. 178, 1948), then the due date shall be replaced with the weekday immediately before the date.
- The Support Office in the guidelines refers to the Support Office for International Development and Cooperation.
- If there are special circumstances that make it difficult to follow the guidelines, then the Dean of the Graduate School will make a decision, after consultation with the Faculty Meeting.

O t h e r s

Graduate Skill Up Subjects

The following subjects are offered at Hiroshima University Graduate School as subjects that all graduate students can take to improve their skills.

<Courses opened in FY2023>

Subjects	No. of Credits	Establishment department
Pre Academic English II	2	Institute for Foreign Language Research and Education
Academic Writing I	2	
Academic Presentation I	2	
Advanced English II	2	
Curriculum Development for Chinese Language Education I	1	
Curriculum Development for Chinese Language Education II	1	
Curriculum Development for Chinese Language Education III	1	
Curriculum Development for Chinese Language Education IV	1	
Advanced seminar on English Rhetoric & Writing for Scientific Papers	2	Writing Center
English Rhetoric & Writing Scientific Papers I	1	
Principles and Methods of Academic Writing for Prospective College Teachers	2	
Academic Writing for Research Papers	2	
Pedagogical Approaches in Academic Writing in English	1	
Critical Reading of English Text	2	
Independent Learning of Academic English and Disciplinary Literacies	1	
Career management course by female researchers	1	Headquarters for Education
Basic Preparing Future Faculty Course	2	Center for Academic Practice and Resources
AIOps Lab A	1	Education and Research Center for Artificial Intelligence and Data Innovation
AIOps Lab B	1	
Internship at Companies	2	

* Some courses may not be offered depending on the year.

* In principle, check the syllabus and registration subjects by using "My Momiji".

The HIRAKU Practical Training Program

Global Career Design Center (“GCDC”) provides “the HIRAKU Practical Training Program” to doctorate students (D) and postdocs (PD) in early research career. It aims to nurture active researchers that will challenge new areas/disciplines. The HIRAKU Practical Training Program mainly consists of the subject classes/courses or seminars/events programmed by GCDC, to help you gain transferrable knowledge/skills to be maximized in the diversified opportunities in the society. You can leverage our core IT system called “Young Researchers’ Portfolio (or HIRAKU-PF)” as well, to keep track of your training/development record, to self-assess your competencies as a researcher, and to understand your strengths or selling points. You can also raise a counseling request via the system to receive relevant guidance and advice to develop your career. Please log in the system now to enjoy the multiple functions to assist you.

Subjects	Establishment Department
Innovation Practice	GCDC
Pathway to becoming a Data Scientist	
Career Management for Highly Skilled Innovators	
Long-term internship	
Skills and Arts of Leadership	
HIRAKU 3MT Competition	
Career Management for Engineer	
Career Management - Theory & Career Development	
Stress Management	
Principles and Methods of Academic Writing for Prospective College Teachers	
Preparing Future Faculty Course	Graduate School of Humanities and Social Sciences
Developing Designing Ability	Graduate School of Advanced Science and Engineering
Technology Transfer	
Technology Strategy for Management	
Intellectual Property, Finance and Accounting	
MOT and Venture Business	
Nano Bio Chemistry Symposium	Graduate School of Integrated Sciences for Life
Lecture on Developing Communication Skills	
Theory and experiment of proteomics	

Contact

Support Office for the fields of International Development and Cooperation
(in charge of the Graduate School of Innovation and Practice for Smart Society)
739-8529
1-4-1 Kagamiyama, Higashi-Hiroshima
Tel: 082-424-7117
E-mail : smart-society@office.hiroshima-u.ac.jp