

Division of Environmental Science Development Guidance for first-year students 2022

Basic Principles, Lecture, Practice, Lab, Credit, etc.

1. Basic Principles

Division of Environmental Science Development has the main objective to establish a new research system of "Environmental Science". We are aiming to materialize new science with "Be Ambitious! (W.S. Clark)" spirit. In order to face unprecedented global environmental issues, we must explore education and research beyond current conventional states, of course. The division possesses new and novel holistic education and research systems for solving the existing environmental problems only by integrating diverse disciplinary approaches. Our curriculum provides wide varieties of background knowledge on the environment and fosters deep professional knowledge and a sharp intuition for carrying out such integrated research projects.

2. Courses and supervisors

2.1 Courses

Division offers four courses: Human and Ecological Systems, Environmental Adaptation Science, Practical Science for Environment and Global Environmental Management.

Course in Human and Ecological Systems: The course studies rehabilitation and control of human-ecological systems with diverse structures.

Course in Environmental Adaptation Science: The course studies total remediation technology and evaluation methods for environmental impacts of chemical substances.

Course in Practical Science for Environment: This course offers training program with practical approaches involving off-campus activities and local society, organizations and businesses such as Proposal-Based Internship.

Course in Global Environmental Management: The course offers practical training programs for international environmental issues. Themes are an international corporation, a technique for field observation and research, resource management, and environmental education and training.

2.2 Supervisors

Students have a chance for selecting research themes and supervisors twice after their entrance. Students who have their themes and supervisors at the time of their entrance can register their supervisors at Kyomu (Academic Affairs Office) in April. On the other hand, students, who wish to learn general and wide subjects before selecting their themes and supervisors, could make their decision by July (to be announced exact date later). Therefore, it is highly recommended to visit many faculty members to discuss research themes. Because there is a limitation of the number of

students to supervise for each faculty, there may be a possibility for students not to choose their preferred faculty as their supervisors. We are making our best effort through counseling and consultation. In fact, there has been no case reported that students could not be supervised by their preferred faculty in the past.

Remarks:

1. Those who have a primary supervisor in April should consult with the primary supervisor and enter the name of the primary supervisor in the form of the “Research Guidance Plan” to be submitted to the division secretary's office (Ms. Ito), and those who do not have a primary supervisor should enter the name of the course representative.
2. Students can change their course and supervisor after consultation with Educational Affair Committees if an expected supervisor agrees.

2.3 Co-supervisors

You have a co-supervisor who supports your supervisor, and two supervisors instruct you. If you choose your co-supervisor belonging to the other graduate school, one additional co-supervisor in our division will be assigned.

3. Credits

Thirty units of credits are required for the Master’s course completion.

The breakdown is as follows.

Research in environmental science development for Master’s thesis	8 credits
Seminar in environmental science development I	4 credits
Lectures, methods, laboratory works, etc.	18 credits
Total	30 credits

- Research in environmental science development I: two year-work in research.
- Seminar in environmental science development I: two year-attendance of suggested course seminars and presentation of research studies.
- Must read "Registration of Course Subjects" and sign up the lectures, method, laboratory works, etc. **during the registration period from April 5th to 15th at 5 pm.**
- Both Research in environmental science development I and Seminar in environmental science development I are automatically registered, so you do not need to register these two.
- Registration Method
Go to ELMS Portal <https://portal.eis.hokudai.ac.jp/portal/contents/home>, log in by ELMS ID & password (distribution method of ELMS ID & Password will be notified later) and start register.

The Registration page is indicated by ‘Academic Registration System’ (Left-side box).

After clicking the button, you will see ‘Web 履修登録システム (Web Registration System)’. Then, click it. After you will go to the next page, you can change the language into English. Input your contact information (phone number and e-mail address) and save the information. Then, you can register your lectures and practical courses.

For information, you can download ‘ELMS Portal Users Manual for Students (PDF)’. After log in, click the button of ‘Users Manual’ at the right top corner. Then, you can download the manual.

Please check the ELMS top page during the registration period to register. You can check the details of lectures etc. at ‘Syllabus Search’ <https://www.global.hokudai.ac.jp/students/syllabus-search/>. Please refer to the student guidebook for further information regarding lectures, methods, lab. works, etc. especially for other divisions.

4. Lectures, Methods and Laboratory Works

- Attend the lectures; Fundamental Course in Environmental Science and Introduction to Environmental Science.
- Attend the classes in other divisions as well as other faculties, if necessary.

4.1 Methods and Laboratory Works

Methods and Laboratory Works (4 credits) are offered under either periodical schedule or concentrated period such as field training. Please refer carefully our syllabus or consult a faculty offering the program. The syllabus can be found in <http://syllabus01.academic.hokudai.ac.jp/Syllabi/Public/Syllabus/SylSearch.aspx>. The contents and schedules are posted on the notice board or sent by e-mail. Please check them frequently.

4.2 Seminars

(**Compulsory**, 4 credits, 2 years) Take seminars in your course or others. You must attend at least 60 class works (90 min for each class work). Seminar information and schedules are on the website;

<http://www.ees.hokudai.ac.jp/division/kigaku/>

4.3 Fundamental Course in Environmental Science Research

To start an academic life, students should learn common sense for a researcher. Our graduate school provides a short and systematic review of research ethics, fundamentals of research, presentation skills, social survey and statistics as “Fundamental Course in Environmental Science Research” (Common subject of Graduate School of Environmental Science). Each of the four modules below consists of three or four of 90 min class. You can get one credit by completing two modules. It is provided in English for a fall term and similar contents will be provided as “Methods of Environmental Science Development” in Japanese for a spring term. You can earn credit from only one of either the English version or the Japanese version. (Contact to Dr. Okino)

The followings are the schedule of the English version.

1. Fundamentals of research (April 11th,18th,25th, May 2nd); research work in graduate schools, design of research plan, structure of papers, evidence-based discussions, respect for originality
2. Academic skills (May, 9th ,16th, 23rd, 30th); Slide presentation, poster presentation, writing paper, resume preparation, and literature search
3. Social survey (May 13th,20th,27th, June 3rd) ; Methods of interview and questionnaire with sampling from population to confirm research hypothesis
4. Statistics (April 8th,15th, 22nd, May 6th); Statistical testing of hypotheses, descriptive and inferential statistics, group comparisons and correlation analysis

5. Form ‘Directed Research Plan’

After consultation with your supervisor (primary advisor), submit ‘Directed Research Plan’ to the Division Secretary's Office (Ms. Ito) esd-jimu@ees.hokudai.ac.jp in paper form or as an e-mail attachment by April 28th 4:00pm.

6. Master’s Thesis

Master’s Thesis has to be submitted based on two-year study and research.

Thesis subject has to be selected by yourself by receiving consultation from your (co-)supervisors, and materials and literature offered by them. In your first year, you have to give a mid-term progress report by a poster presentation. In the second year, mid-term oral presentation, another poster presentation and final oral presentation (examination) must be done.

Criteria of thesis evaluation are as follows.

- 1) Mastery of fundamental knowledge in the field.
- 2) Ability to access and integrate information into a cohesive overview of current knowledge
Ability to critically evaluate the meaning, value, and contribution of published literature in the field
- 3) Imagination and originality of thought
- 4) Ability to draw reasoned conclusions from a body of knowledge
- 5) Clear and well interpretable graphs and figures
- 6) Correct quotation of the scientific literature

7. Internship

A long-term internship will be offered to students in our division. This is not a short term (1–2 weeks) common internship such as so-called "job training type". Local and national governments, organizations, research institutions, companies, NPOs, or international institutions with environmentally related projects are available for 2–6

month internship. Please contact a member of the internship committee (Yamanaka) after consulting with your supervisor, before starting your internship, because the committee should contact the institution you go. Four credits can be obtained after the completion of such internship as course credits for Internship in Practical Science for Environment I, II.

8. Teaching License

By earning the credits of appointed lectures, methods, and laboratory works, students can receive their teaching license in Science. Refer to the Students Handbook.

9. E-mail Address and Cybersecurity

8.1 E-mail address and mailing-list

The division uses the mailing-list (ML) for most of the important announcements. Student should join either or both of the below MLs.

mckigaku@ml.hokudai.ac.jp ...For MC student

dckigaku@ml.hokudai.ac.jp ...For DC student

You can register any e-mail addresses you have, but you must check it very frequently because this ML delivers some crucial information including deadlines and procedures related to graduation. For registration, you just submit your name and address to the division administrator (mail to esd-jimu@ees.hokudai.ac.jp or at room E-205) .

The method to obtain e-mail address:

You will receive ELMS-ID within several days from the enrollment. That ID will be used at ELMS (Education and Learning Management System) which provides educational information for students and faculty members, e.g., announcement of the class. Access to ELMS portal site (<https://www.elms.hokudai.ac.jp/>) via internet browser. At first login, you may need to use computers connected to the campus network system (called HINES). In that case, please contact your lab-mates, supervisor, or division office. At ELMS portal, click “G-SUITE” and “Mail” to open your mail box, and you can find your e-mail address which was automatically created. The address is supposed to be like “...@elms.hokudai.ac.jp” or “...@eis.hokudai.ac.jp”. This service is offered by Google, so you may arrange the setting as you like. Access to HINES portal site (<https://igate.hucc.hokudai.ac.jp/index.html>) and create your e-mail address at “...@ees.hokudai.ac.jp” domain. You can use this address via web application (<https://wmail.hines.hokudai.ac.jp>) or by transferring to your favorite software. For mail transfer, please follow the instruction (<https://www.hines.hokudai.ac.jp/hines-mail/config.html>).

You can transfer e-mails to your mobile phone, or your private address automatically, but please do it at your responsibility. We know that troubles often happen when the size of the e-mail is large because many e-mail services have size

limitation. The division will not care about such transfer failure even though e-mail contains important announcement.

You can also use Microsoft Office and anti-virus software without any payment. If you want to download the software, please follow the instruction available at ELMS portal site.

8.2 Cybersecurity

If your computer is infected with a computer virus, there is a risk that negative influences spread widely via computer networks. Once infected, you also may face very serious situations, such as losing your research results. For this reason, the university strongly recommends anti-virus software to be installed in all computers connected to the university network.

To install the anti-virus software, log in to the ELMS portal (<https://www.elms.hokudai.ac.jp/>) with your ELMS-ID, and proceed to the application form for the university-provided software which is supposed to appear on the right side of the window. Download the installation file of the anti-virus software provided by the TrendMicro Inc. To agree to the terms of use, check the box below and click the “同意します” button. Then, register your e-mail address, MAC-address of your PC, and etc. to proceed to the download window. Since the installation guide is only available in the Japanese language, please contact your colleagues or staffs in case you face difficulty.

10. Approximate Schedule for Master Course

First Year

April	Guidance for freshmen Semester begins Counseling Supervisor selection (1st chance)
June, July	Mid-term presentation of Master Thesis (Attend as observers)
June	Barbeque party (<i>Jinpa</i> in short Japanese)
July	Supervisor selection (2nd chance)
July	Master's Thesis Defense (Attend as observers)
December	Mid-term presentation of Master Thesis (Poster presentation) and you should have a co-supervisor by this period
February	Master's Thesis Defense (Attend as observers)

Second Year

April-June	Mid-term presentation of Master Thesis (Oral presentation)
June	Barbeque party
November	Mid-term presentation of Master's Thesis (Poster presentation)
February	Master's Thesis Defense (Oral presentation)

11. Doctoral Course

12 units of credits are required for the Doctoral course completion.

Research in Environmental Science Development for Doctoral Thesis II	8 Credits
Seminar in Environmental Science Development II	4 Credits
Total	12 Credits

- Research in Environmental Science Development for Doctoral Thesis II (3 years) is to research on a subject of the division for the doctoral thesis.
- Seminar in Environmental Science Development II (3 years) is to attend to the division seminar to obtain a wide knowledge, and to read many reports related to the theme of a doctoral thesis and to present the summary.
- Present progress at Mid-term presentation (April - June), Division or related Seminar. Receive a consultation from Educational Affairs Committees or at Kyomu (Academic Affairs Office) for detailed information.
- Both Research in Environmental Science Development for Doctoral Thesis II and Seminar in Environmental Science Development II are automatically registered, so you do not need to register these two. However, if you want to earn credits of lectures and practical courses for Master's students, you need to register them by yourself during the registration period.

Doctoral dissertation review process and requirements

A. Minimum requirements for doctoral course

A minimum of one peer-review research paper published (in English) as first author.

One peer-review paper in Japanese along with the thesis dissertation in English is acceptable conditioned to approval by faculty meeting before the application.

B. Minimum requirements for doctoral course in case of application within one year after the end of the doctoral course study.

A minimum of one peer-review research paper (in English) as first author accepted before the pre-defense.

One paper in Japanese along with the thesis dissertation in English is acceptable conditioned to approval by faculty meeting before the application.

C. Dissertation defense procedure

1. The pre-defense is conducted four months before the expected graduation.

2. Application documents should be submitted to pre-defense reviewers a week before the examination date. The documents include the dissertation draft, reference paper(s), dissertation bibliography, curriculum vitae, list of research accomplishments, dissertation abstract. At this point, at least one reference first-author paper should be accepted. In a case of doctoral course, a paper in review is acceptable if its current status is in minor revisions.
3. The pre-defense consists of a 40–50-min presentation followed by a 30–40-min question and answer session.
4. The final defense can be held after acceptance of the application at a board meeting of representatives.
5. The final defense consists of an approximately 40-min presentation followed by a 30-min question and answer session.
6. The final-defense result should be submitted to the academic affairs office within one year after the acceptance at the board meeting of representatives.

12. Relationship between Graduate School of Environmental Science and Faculty of Environmental Earth Science

Students belong to Graduate School of Environmental Science, which is an education organization, while professors belong to different research organizations such as Faculty of Environmental Earth Science, Institute of Low Temperature Science, and Arctic Research Center. Therefore, please be careful not to use the name of Faculty of Environmental Earth Science for your affiliation. Once again, you belong to Graduate School of Environmental Science.

13. Educational Affairs (~~Counseling~~) Committees

The division has four members of the Educational Affairs Committee, and the division head and the Educational Affairs Committee members coordinate lectures, exercises and practical training, seminars, and mid-term and master's thesis presentations. Students should consult with the Educational Affairs Committee members and the division head for advice on how to take lectures, decide on an academic advisor, request a change in academic advisor, or seek advice on harassment.

Head of Division

Shinichiro Noro B-702 TEL:706-2272 noro@ees

Educational Committees

Teiji Watanabe A302 TEL:706-2213 twata@ees

(Chief)

Shiro Tsuyuzaki A-805 TEL:706-2283 tsuyu@ees

JorgeGarciaMolinos Arctic Research Center 211 TEL:716-9628 jorgegmolinos@arc.
Jyunjiro.Negishi; A-303 [TEL:706-2210](tel:706-2210) negishi@ees

Division Office Administrator

Yuko Ito E-205 TEL: 706-2224 esd-jimu@ees

* Please add “.hokudai.ac.jp” to e-mail address above.

14. Insurances

Hokkaido University advises all students to subscribe to Personal Accident Insurance for Students Pursuing Education and Research (学研災/*Gakkensai*). You received its brochure with documents for the enrollment procedure. You can find useful information about “Insurance for students” in “Safety Manual”.

In addition, Graduate School of Environmental Science advises field scientists to subscribe the insurance to cover rescue expenses. Each laboratory will collect insurance premium if applicable. Ask your supervisor if you need it.

15. Field Research Planning Record

You are asked to submit ‘Field Research Planning Record’ through your supervisor when you conduct field survey (by e-mail attachment to Division Office Administrator and Division Head by 3 days prior to departure date). This enables to respond to emergency immediately.

16. Scholarship

Information about scholarship is delivered through our mailing list. In addition the information is shown at our website.

<https://www.ees.hokudai.ac.jp/modules/top/students/index.html>

17. Course Guidance & Start date of Course seminar

Course in Human and Ecological Systems:

- **Nature in Symbiosis Seminar:** (Contact: J.Negishi; negishi@ees)
Guidance & Seminar: (Starting date) Wednesday, April 13th,
(Time) 14:45, (Place) D103
- **Environmental Geography Seminar:** (Contact: T. Watanabe; twata@ees)
Guidance & Seminar: (Starting date) Wednesday, April 13th,
(Time) 14:45, (Place) D101
- **Interdisciplinary Seminar:** (Contact: M. Fujii; mfujii@ees)
Guidance & Seminar: (Starting date) Friday, April 8th
(Time) 13:00, (Place) Online

Course in Environmental Adaptation Science: (Contact: K Toyoda; kazuhiko@ees)

Guidance & Seminar: (Starting date) Monday, April 11th,
(Time) 16:30, (Place) D201

Course in Practical Science for Environment: (Contact: Y. Yamanaka;
galapen@ees)

Guidance & Seminar: (Starting date) Tuesday, April 12th,
(Time) 13:00, (Place) C204-2

Course in Global Environmental Management: (Contact: M Ishikawa; mishi@ees)

Guidance & Seminar: (Starting date) Tuesday, April 12th,
(Time) 16:30, (Place) D101

* Please add “.hokudai.ac.jp” to e-mail address above.