

Division of Environmental Science Development Guidance for first-year students 2019

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. Students, who have supervisors at the time of their entrance, must report to Kyomu (Academic Affairs Office) in April. If a student has not decided who a supervisor is, report a course head as a tentative supervisor to Kyomu (Academic Affairs Office).
2. You can change your 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 3 to April 15 at 5 pm.**
- Registration Method

Go to ELMS Portal https://elms.ec.hokudai.ac.jp/webap/login/login_gui.da3?lang=en, log in by ELMS ID & password (distribution method of ELMS ID & Password will be notified later) and start register.

The Registration page is indicated ‘WEB registration of course subjects’ on the top page. *There is no banner for registration on the top page at the right moment. This comes up in April. And it might be in Japanese; WEB 履修登録’ or indicated by similar expression in English. So please check the ELMS top page during the registration period and register. Operation manual is currently available in only Japanese, sorry.

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 seminar; 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 Methods of Environmental Science Development

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

1. Fundamentals of research (4/8, 15, 22, 5/13); research work in graduate schools, a design of research plan, a structure of papers, evidence-based discussions, respect for originality
2. Academic skills (4/12, 19, 26, 5/10); Slide presentation, Poster presentation, Literature search
3. Social survey (5/20, 27, 6/3, 10): methods of interview and questionnaire with sampling from population to confirm research hypothesis
4. Statistics modeling (5/17, 24, 31, 6/7); data visualization, GLM, model selection, Bayesian model.

5. Master's Thesis

Master's Thesis has to be submitted based on a 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

6. 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 months internship. Please contact a member of the internship committee after consulting with your supervisor, before starting your internship, because the committee should contact with the internship 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.

7. 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.

8. E-mail Address and cybersecurity

8.1 E-mail address

HINES local network is available for the University community. In order to use it, it is required to obtain "ees.hokudai.ac.jp" domain. With HINES e-mail address, you can access various online services offered by Information Initiative Center (IIC). A cyber ID

called ELMS-ID will be distributed to each student within several days from the enrollment. Using your ELMS-ID, you should immediately apply your own e-mail address by accessing iic portal site: <https://igate.hucc.hokudai.ac.jp/index.html>. You must pay your great care for selecting the name of your e-mail address since your HINES e-mail address will be your lifetime address of Hokkaido University. **Your e-mail address needs to be reported to the division administrator (esd-jimu@ees.hokudai.ac.jp or room E-205) in order to register it in our division mailing list.** The registered e-mail shall be used **ONLY** for our division business. You must check your HINES e-mail frequently since there will be many important announcements to be sent via e-mail. We also use your e-mail to check your safety at natural disasters or other extreme events.

You can use your e-mail on Web-mail site (<http://wmail.hines.hokudai.ac.jp>) or other e-mail service providers such as Gmail, mobile telephone, etc. We **DO NOT** recommend mobile telephone mail service since there have been many troubles on transferring e-mails with attached files. Troubles on transferring e-mails are at your own risk. If you want to use mail software on your PC for accessing HINES e-mail, please refer directions at <http://www.hines.hokudai.ac.jp/hines-mail/config.html>

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 educational information system (ELMS; <https://portal.eis.hokudai.ac.jp/>) with your ELMS-ID, and download the installation file of the anti-virus software provided by the TrendMicro Inc. After you log-in, click "**Application for use of the university-provided software**" link and select "**TrendMicro ライセンス**". 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.

9. Approximate Schedule for Master Course (April Entrants)

First Year

April	Guidance for freshmen Semester begins Counseling Supervisor selection (1st chance)
April-June	Mid-term presentation of Master Thesis (Oral presentation) Attend as observers. (17 th April, 20 th May, 21 st June)
June	Barbeque party (Jinpa in short Japanese)
July	Supervisor selection (2nd chance)
November	Mid-term presentation of Master Thesis (Poster presentation) and you should have a co-supervisor by this period

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)
January	Submitting master thesis to examining committee
February	Master's Thesis Defense (Oral presentation)

10. 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 (November), Division or related Seminar. Receive a consultation from Education Affair Committees or at Kyomu (Academic Affairs Office) for detailed information.

11. Educational affairs (Counseling) Committees

Students can seek academic advice from the educational affairs the committee members or counseling committee members, besides their supervisors.

Head of Division

Tatsufumi Okino Laboratory Building (Jikken-toh) 23 TEL: 706-4519 okino@ees

Educational Committees

Kazuhiro Toyoda (Chief)	C408	TEL: 706-4512	kazuhiro@ees
Yuichi Hayakawa	A-304	TEL: 706-2222	hayakawa@ees
Yasuhiro Yamanaka	C-301	TEL: 706-2363	galapen@ees
Takayuki Shiraiwa	Institute of Low Temperature Science 309	TEL: 706-7664	shiraiwa@lowtem

Division Office Administrator

Yuko Ito E205 TEL: 706-2224 esd-jimu@ees

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

12. About the insurances

Hokkaido University advises all students to subscribe to Personal Accident Insurance for Students Pursuing Education and Research. 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.

13. Course Guidance & Start date of Course seminar

Course in Human and Ecological Systems:

- **Nature in Symbiosis Seminar:** (Contact: S. Tsuyuzaki; tsuyu@ees
or T. Sato; t_sato@ees)
Guidance & Seminar : (Starting date) April 10th, (time) 14:45, (Place)D103
- **Environmental Geography Seminar:** (Contact: T. Watanabe; twata@ees)
Guidance: April 2nd. After the Guidance of the Division, Place: C204-2
Seminar : (Starting date) April 10th, (time) 14:45, (Place)D101
- **Sustainable Low Carbon Society (LCW) Sub-Seminar:** (Contact: M. Fujii;
mfujii@ees)
Guidance & Seminar : (Starting date) April 12th, (Time) 13:00, (Place) D101

Course in Environmental Adaptation Science: (Contact: S. Noro; noro@ees)

Guidance: April 2nd, After the Guidance of the Division, Place: D101

Seminar : (Starting date) April 8th, (Time) 13:00, (Place) D101

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

Guidance & Seminar : (Starting date) April 9th (Time) 13:00, (Place) C204-2

Course in Global Environmental Management: (Contact: M. Kurasaki;
kura@ees)

Guidance & Seminar : (Starting date) April 9th, (Time) 16:30, (Place) D101

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