# FY 2019 **Nagoya University**

**Program** 

Nagoya University **Education for Sustainable Development** Consortium Program with 6 Graduate Schools

環境学 **GSES** 人文学 国際開発 **GSH E**ducation for **GSID S**ustainable **D**evelopment Program by 6 Graduate 経済学 生命農学 **Schools** SOEC **GSBS** 工学 **ENGG** 

Nagoya University Education for Sustainable Development Program (NU ESD Program) which relates to sustainable development (SD) education and research, was launched in 2013. Nagoya University now offers the ESD Program in collaboration with 6 Graduate Schools associated with SD, including the Graduate school of **Environmental Studies, International Development,** Bioagricultural Studies, Engineering, Economics and **Humanities.** 

The Nagoya University Academic Charter states that we seek to, "Contribute to global exchange, especially with Asian countries, by promoting international academic collaboration and the education of international students".

In November 2014, at the UN's 10 Years of Education for Sustainable Development (ESD) held in Nagoya, Nagoya University submitted to UNESCO a commitment to enhance the Nagoya University Education for Sustainable Development Program in order to realize the Global Action Programme formulated at the UNESCO World Conference on ESD (2005 - 2014).

In 2015, the UN adopted the 2030 Agenda for Sustainable Development Goals (SDGs). SDGs have 17 goals and each goal has multiple targets, in all 169.

We hope our students at Nagoya University will become the leaders of a sustainable future. To fulfill this role, basic understanding and sharing of values, principles, and knowledge in SD as part of their liberal arts study is crucial. And students must balance discipline-type and solution-type research and education related to SD.

Through the NU ESD Program, it is expected that students will be acquired ability of simultaneously achieve multiple SDGs.

Students admitted to a master's course in any of the graduate schools (Initial Postgraduate Program) may earn up to 10 credits in other graduate schools (check the graduate school or department's provisions on courses for

Approximately, 1,000 students in total join this program annually, and about 90 of them take subjects at another graduate school every year.

## SUSTAINABLE GALS DEVELOPMENT GALS





























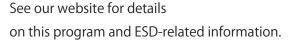




SUSTAINABLE









#### 2019 Course Lists of Graduate Schools

Graduate School of Environmental Studies (GSES) Syllabus: http://www.env.nagoya-u.ac.jp/students/index.html#students\_03

| Course Title   | Format  | Class  | Semester       | Credit | Room   | Instructors  | Day  | Period |
|--|---------|--------|----------------|--------|--|--|------|--------|
| Field Seminar on Environmental Studies   | Seminar | M 1, 2 | Spring         | 2      | Lecture Room 1/GSES                                | Prof. Yasushi Yamaguchi (Lead)   | Wed. | 5th    |
| Ecology  | Lecture | M 1, 2 | Fall           | 2      | Lecture Room 1/GSES                                | Prof. Yoshihiro Natsuhara, Prof. Kenichiro Sugitani, Prof. Ken Yoda  | Wed. | 2nd    |
| Introduction for Sustainable Development   | Lecture | M 1, 2 | N/A            | 2      | -  | Prof. Masao Takano, Prof. Hirokazu Kato, Assoc. Prof. Hisashi<br>Komatsu, Designated Assoc. Prof. Noriko Sugiyama  | -    | -      |
| Sustainability and Environmental Studies   | Lecture | M 1, 2 | Fall           | 2      | Lecture Room 2/GSES                                | Prof. Hiroki Tanikawa, Prof. Takayuki Morikawa   | Fri. | 2nd    |
| Studies on Water Environment   | Lecture | M 1, 2 | Spring         | 2      | Lecture Room 3/GSES                                | Assoc. Prof. Noriyuki Kawamura (Lead)  | Wed. | 2nd    |
| Environmental Studies on Natural Resources and Energy  | Lecture | M 1, 2 | Spring         | 2      | Lecture Room 2/GSES                                | Prof. Masao Takano   | Thu. | 2nd    |
| Practical Seminar on Developing Sustainable Local Communities                                    | Seminar | M 1, 2 | Year-<br>Round | 4      | Lecture Room 3/GSES                                | Prof. Masao Takano, Prof. Satoshi Yokoyama   | Mon. | 3rd    |
| Science and Technology for Disaster Mitigation 1A: Understanding Natural Hazard                  | Lecture | M 1, 2 | Spring         | 2      | Lecture Room 2/GSES                                | Prof. Yasuhiro Suzuki(Lead)  | Fri. | 2nd    |
| Science and Technology for Disaster Mitigation 1B: Social Science Approaches                     | Lecture | M 1, 2 | Fall           | 2      | Lecture Room 1/GSES                                | Prof. Makoto Takahashi, Assoc. Prof. Kenji Muroi   | Wed. | 1st    |
| Science and Technology for Disaster Mitigation 2: Methodology for Disaster Mitigation            | Lecture | M 1, 2 | Fall           | 2      | GensaiHall/Disaster Mitigration<br>Research Center | Assoc. Prof. Takuya Nagae(Lead)  | Thu. | 2nd    |
| Science and Technology for Disaster Mitigation 3A: Practical Actions for Disaster Mitigation (1) | Lecture | M 1, 2 | Spring         | 1      | GensaiHall/Disaster Mitigration<br>Research Center | Prof. Jun Tobita   | TBD  | TBD    |
| Science and Technology for Disaster Mitigation 3B: Practical Actions for Disaster Mitigation (2) | Lecture | M 1, 2 | Fall           | 1      | GensaiHall/Disaster Mitigration<br>Research Center | Prof. Jun Tobita   | TBD  | TBD    |
| Introduction to Geology  | Lecture | M 1    | N/A            | 2      | -  | Disgnated Assoc. Prof. Marc Andre Humblet  | -    | -      |
| Low Carbon Cities Studies  | Lecture | M 1    | Spring         | 2      | Lecture Room 2/GSES                                | Prof. Hiroki Tanikawa(Lead)  | Wed. | 2nd    |
| Water and Waste Management Policies  | Lecture | M 1    | Intensive      | 2      | TBD  | Assoc. Prof. Miho Iryo, Invited Lecturer Victor Muhandiki  | TBD  | TBD    |
| Environmental Urban Systems  | Lecture | M 1, 2 | Fall           | 2      | Lecture Room 1/GSES                                | Assoc. Prof. Miho Iryo   | Mon. | 2nd    |
| English Communication in Environmental Issues  | Lecture | M 1, 2 | Spring         | 1      | Lecture Room 2/GSES                                | Assoc. Prof. Miho Iryo, Lecturer Chun Sohyun   | Fri. | 4th    |
| Special Lecture on Environmental Studies (English language) 1                                    | Lecture | M 1, 2 | TBD            | 1      | Lecture Hall                                       | Academic Affairs Committee   | TBD  | TBD    |
| Special Lecture on Environmental Studies (English language) 2                                    | Lecture | M 1, 2 | TBD            | 2      | TBD  | Academic Affairs Committee   | TBD  | TBD    |
| Introduction to Earth and Planetary Sciences   | Lecture | M 1, 2 | N/A            | 2      | -  | Assoc. Prof. Yasuhiro Hirahara(Lead)   | -    | -      |
| Global and Urban Warmings  | Lecture | M 1, 2 | Spring         | 2      | Lecture Room 2/GSES                                | Prof. Takeshi Nakatsuka(Lead)  | Tue. | 1st    |
| Housing and Environment  | Lecture | M 1, 2 | Fall           | 2      | Lecture Room 3/GSES                                | Assoc. Prof. Teruyuki Saito(Lead)  | Tue. | 2nd    |
| Environmental Policies and Strategies  | Lecture | M 1, 2 | N/A            | 2      | -  | -  | -    | -      |
| Environmental Ethics   | Lecture | M 1, 2 | Spring         | 2      | C343/Liberal Arts and Sciences<br>Main Building    | Prof. Koji Maruyama  | Tue. | 2nd    |
| Classes and Research Instruction in Basic Environmental Studies I                                | Seminar | D 1, 2 | TBD            | 2      | TBD  | Prof. Masao Takano, Prof. Hirokazu Kato, Designated Assoc. Prof. Noriko Sugiyama, Asst. Prof. Yuji Kakimoto  | TBD  | TBD    |
| Classes and Research Instruction in Basic<br>Environmental Studies II                            | Seminar | D 2    | TBD            | 2      | TBD  | Prof. Masao Takano, Prof. Hirokazu Kato, Designated Assoc. Prof. Noriko Sugiyama, Asst. Prof. Yuji Kakimoto  | TBD  | TBD    |
| On-site Research Training in Clinical<br>Environmental Studies I                                 | Field   | D 1, 2 | TBD            | 2      | TBD  | Prof. Hirokazu Kato, Assoc. Prof. Yasuhiro Hirano, Assoc. Prof. Noriyuki Kawamura, Designated Assoc. Prof. Noriko Sugiyama, Asst. Prof. Yuji Kakimoto, Asst. Prof. Takafumi Miyasaka, Visiting Assoc. Prof. Hiromi Yamashita | TBD  | TBD    |
| On-site Research Training in Clinical<br>Environmental Studies II                                | Field   | D 2    | TBD            | 2      | TBD  | Prof. Hirokazu Kato, Assoc. Prof. Yasuhiro Hirano, Assoc. Prof. Noriyuki Kawamura, Designated Assoc. Prof. Noriko Sugiyama, Asst. Prof. Yuji Kakimoto, Asst. Prof. Takafumi Miyasaka, Visiting Assoc. Prof. Hiromi Yamashita | TBD  | TBD    |

#### Graduate School of Engineering (ENGG) Syllabus: http://syllabus.engg.nagoya-u.ac.jp/syllabus/

| Course Title   | Format  | Class  | Semester | Credit | Room                        | Instructors            | Day  | Period      |
|--|---------|--------|----------|--------|-----------------------------|------------------------|------|-------------|
| Civil Engineering and Policies for Developing Countries I  | Lecture | M 1, 2 | Fall     | 2      | 911/ENGG Bldg. 9            | Prof. Kiichiro Hayashi | Wed. | 3rd,<br>4th |
| Civil Engineering and Policies for Developing Countries II | Lecture | M 1, 2 | N/A      | 2      | -                           | -                      | -    | -           |
| Advanced Theory of River Basin Management                  | Lecture | M 1    | Spring   | 2      | Seminar Room 2/ENGG Bldg. 9 | Prof. Yuji Toda        | Tue. | 2nd         |
| Conservation and Ecotoxicology of Soil and Water           | Lecture | M 1    | Spring   | 2      | Seminar Room 2/ENGG Bldg. 9 | Prof. Arata Katayama   | Thu. | 2nd         |

### Graduate School of Economics (SOEC) Syllabus: http://www2.soec.nagoya-u.ac.jp/education/graduatesc/

| Course Title   | Format  | Class | Semester       | Credit | Room                 | Instructors      | Day | Period |
|--|---------|-------|----------------|--------|----------------------|------------------|-----|--------|
| Theme Workshop (Resource, the Environment and Economic Growth) | Seminar | M1-D3 | Year-<br>Round | 2      | Seminar Room 18/SOEC | Prof. Jinjun Xue | TBD | TBD    |

#### Graduate School of International Development (GSID) Syllabus: https://www.gsid.nagoya-u.ac.jp/en/curriculum/subjects/

| Course Title                              | Format  | Class  | Semester  | Credit | Room                | Instructors  | Day  | Period |
|---|---------|--------|-----------|--------|---------------------|--|------|--------|
| Introduction to International Development | Lecture | M 1, 2 | Spring    | 2      | Auditorium          | GSID Faculty Members (Lead: Prof. Shoko Yamada, Assoc. Prof.<br>Tomoko Ishikawa) | Wed. | 3rd    |
| Japan's Development Experience            | Lecture | M 1, 2 | Fall      | 2      | Auditorium          | GSID Faculty Members (Lead: Prof. Atsuko Ohashi, Assoc. Prof. Isamu Okada)       | Wed. | 3rd    |
| Development Cooperation                   | Lecture | M 1, 2 | Intensive | 2      | TBD                 | Adjunct Prof. Keisuke Ito, et al.  | TBD  | TBD    |
| Development Assistance                    | Lecture | M 1, 2 | N/A       | 2      | -                   | -  | -    | -      |
| Theory on Non-Governmental Organizations  | Lecture | M 1, 2 | N/A       | 2      | -                   | -  | -    | -      |
| Development Economics                     | Lecture | M 1, 2 | Spring    | 2      | Lecture Room 3/GSID | Prof. Shigeru Otsubo   | Tue. | 2nd    |
| Law and Development                       | Lecture | M 1, 2 | Spring    | 2      | Seminar Room 9/GSID | Prof. Yuzuru Shimada   | Thu. | 2nd    |
| Development and Justice                   | Lecture | M 1, 2 | Spring    | 2      | Lecture Room 2/GSID | Assoc. Prof. Wataru Kusaka   | Mon. | 2nd    |
| Political Institution Theory              | Lecture | M 1, 2 | N/A       | 2      | -                   | -  | -    | -      |
| Peacebuilding                             | Lecture | M 1, 2 | Spring    | 2      | Seminar Room 6/GSID | Prof. Yukiko Nishikawa   | Fri. | 3rd    |
| International Development and Poverty     | Lecture | M 1, 2 | Intensive | 2      | TBD                 | Adjunct Prof. Suzuka Sugawara  | TBD  | TBD    |
| International Environmental Law           | Lecture | M 1, 2 | N/A       | 2      | -                   | -  | -    | -      |
| Sustainable Tourism and Development       | Lecture | M 1, 2 | Fall      | 2      | TBD                 | Prof. Tetsuo Umemura   | Fri. | 2nd    |

#### Graduate School of Bioagricultural Studies (GSBS) Syllabus: http://www.agr.nagoya-u.ac.jp/graduate-school/grsc-kougiyouran.html

| Course Title                           | Format  | Class | Semester | Credit | Room                 | Instructors   | Day  | Perio |
|--|---------|-------|----------|--------|----------------------|---|------|-------|
| Principles of Bioagricultural Sciences | Lecture | M 1   | Spring 1 | 1      | Lecture Room 12/GSBS | GSBS Faculty Members  | Tue. | 1st   |
| Forest Environment Science             | Lecture | M 1   | Fall 1   | 1      | Lecture Room 7/GSBS  | Prof. Chisato Takenaka, Assoc. Prof. Takafumi Tanaka,<br>Asst. Prof. Ayumi Kotani   | Mon. | 5th   |
| Forest Biology                         | Lecture | M 1   | Spring 2 | 1      | Lecture Room 5/GSBS  | Prof. Nobuhiro Tomaru, Prof. Naoki Hiji, Assoc. Prof. Hisashi Kajimura,<br>Assoc. Prof. Michiko Nakagawa, Lecturer Kazuharu Ogawa, Asst. Prof.<br>Wataru Toki                                 | Wed. | 1st   |
| Forest Sociology                       | Lecture | M 1   | Fall 1   | 1      | Lecture Room 7/GSBS  | Prof. Kazuhiro Harada, Assoc. Prof. Takafumi Tanaka, Designated Asst. Prof. Yui Sunano  | Fri. | 1st   |
| Forest Resource Industrialization      | Lecture | M 1   | Spring 2 | 1      | Lecture Room 7/GSBS  | Prof. Hiroyuki Yamamoto, Assoc. Prof. Mariko Yamasaki, Assoc. Prof. Kazukiyo Yamamoto, Asst. Prof. Kosei Ando   | Thu. | 5th   |
| Advanced Soil Science                  | Lecture | M 1   | Spring 1 | 1      | Lecture Room 7/GSBS  | Prof. Akira Watanabe, Prof. Jun Murase, Prof. Susumu Asakawa,<br>Lecturer Takeshi Watanabe  | Tue. | 2nd   |
| Advanced Biomass Science               | Lecture | M 1   | Spring 1 | 1      | Lecture Room 7/GSBS  | Prof. Kazuhiko Fukushima, Prof. Hiroyuki Yamamoto,<br>Assoc. Prof. Takanori Imai, Assoc. Prof. Masato Yoshida,<br>Assoc. Prof. Yasuyuki Matsushita, Lecturer Miyuki Matsuo, Lecturer Dan Aoki | Fri. | 5th   |
| Wood Cytology                          | Lecture | M 1   | Fall 1   | 1      | Lecture Room 7/GSBS  | Prof. Kazuhiko Fukushima, Prof. Hiroyuki Yamamoto,<br>Assoc. Prof. Takanori Imai, Assoc. Prof. Masato Yoshida,<br>Assoc. Prof. Yasuyuki Matsushita, Lecturer Miyuki Matsuo, Lecturer Dan Aoki | Fri. | 5th   |
| Analysis for Biological Materials      | Lecture | M 1   | Spring 1 | 1      | Lecture Room 5/GSBS  | Prof. Satoru Tsuchikawa, Assoc. Prof. Mariko Yamasaki,<br>Lecturer Tetsuya Inagaki, Asst. Prof. Kosei Ando  | Mon. | 2nc   |
| Nonlinear Mechanics of Materials       | Lecture | M 1   | Fall 1   | 1      | Lecture Room 7/GSBS  | Assoc. Prof. Mariko Yamasaki, Asst. Prof. Kosei Ando  | Thu. | 2nd   |

#### Graduate School of Humanities(GSH) Syllabus: https://www.hum.nagoya-u.ac.jp/en/education/education-sub2/

| Course Title  | Format  | Class  | Semester       | Credit | Room | Instructors  | Day  | Period |
|---|---------|--------|----------------|--------|------|--|------|--------|
| Practical Training on Field Archaeology               | Field   | M 1, 2 | Intensive      | 2      | TBD  | Prof. Naoto Yamamoto, Assoc. Prof. Yoshimitsu Kajiwara, Asst. Prof. Nobuyuki Ito | TBD  | TBD    |
| Practical training on Anthropological Fieldwork a     | Seminar | M 1, 2 | Spring         | 2      | TBD  | Prof. Shigehiro Sasaki   | Mon. | 4th    |
| Practical training on Anthropological Fieldwork b     | Seminar | M 1, 2 | Fall           | 2      | TBD  | Prof. Shigehiro Sasaki   | Mon. | 4th    |
| Practical Field training on Archives and Text Studies | Field   | M 1, 2 | Intensive Fall | 2      | TBD  | Assoc. Prof. Kensuke Chikamoto   | TBD  | TBD    |
| Studies in Cultural Resources I                       | Seminar | M 1, 2 | Spring         | 2      | TBD  | Prof. Tomohiro Furuoya, Assoc. Prof. Yoshimitu Kajiwara                          | Mon. | 5th    |
| Studies in Cultural Resources II                      | Seminar | M 1, 2 | Spring         | 2      | TBD  | Prof. Tomohiro Furuoya, Assoc. Prof. Hideya Kawanishi                            | Mon. | 1st    |
| Studies in Cultural Resources III                     | Seminar | M 1, 2 | Fall           | 2      | TBD  | Prof. Tomohiro Furuoya, Assoc. Prof. Hideya Kawanishi                            | Mon. | 1st    |

 $<sup>{}^{\</sup>star}\text{Please contact Assoc. Prof. Yoshimitsu Kajiwara} (kajiwara@nagoya-u.jp) \ before \ attending \ (except \ for \ Archaeology \ Student.$ 

### FY2019 The ESD Consortium Program Mechanism

### **Shared Values / Knowledge**

### **Obtaining Skills & Competencies for Solution**

Diversity & Inter-Dependency of the Environment, Society & Culture

- >Sustainability and Environmental Studies(GSES)
- >Introduction to Earth and Planetary Sciences(GSES)
- ➤ Ecology(GSES)
- ➤ Environmental Urban Systems (GSES)
- ➤ Civil Engineering and Policies for Developing Countries II (ENGG)
- >Theme Workshop (Resource, the Environment and Economic Growth)(SOEC)
- ➤ Forest Resource Industrialization(GSBS)



## Knowledge

. Health, Disaster



Sustainable Production & Equality & Peace in Society

### **Value**

Sufficiency &

- ➤ Low Carbon Cities Studies(GSES)
- ➤ Global and Urban Warmings(GSES)
- ➤ Principles of Bioagricultural Sciences (GSBS)
- > Forest Environment Science(GSBS)
- ➤ Forest Biology(GSBS)
- ➤ Forest Sociology(GSBS)
- ➤ Advanced Soil Science(GSBS)
- ➤ Wood Cytology(GSBS)
- ➤ Nonlinear Mechanics of Materials(GSBS)
- ➤ Studies on Water Environment(GSES)
- ➤Introduction to Geology (GSES)
- >Advanced Theory of River Basin Management(ENGG)
- >Conservation and Ecotoxicology of Soil and Water(ENGG)
- ➤ Housing and Environment(GSES)
- ➤ Science and Technology for Disaster Mitigation 1A: Understanding Natural Hazard(GSES)
- >Science and Technology for Disaster Mitigation 1B: Social Science Approaches(GSES)
- Science and Technology for Disaster Mitigation 2: Methodology for Disaster Mitigation(GSES)
- ➤ Special Lecture on Environmental Studies (English language) 1(GSES)
- >Special Lecture on Environmental Studies (English language) 2(GSES)
- ➤Introduction for Sustainable Development(GSES)
- >Classes and Research Instruction in Basic Environmental Studies I(GSES)
- >Classes and Research Instruction in Basic Environmental Studies II(GSES)
- ➤ Environmental Ethics(GSES)
- ➤Introduction to International Development(GSID)
- ➤ Development and Justice(GSID)
- ➤ Peacebuilding(GSID)



Institutional

Innovation

- ► Environmental Policies and Strategies (GSES)
- >Water and Waste Management Policies(GSES)
- Science and Technology for Disaster Mitigation 3A: Practical Actions for Disaster Mitigation (1) (GSES)
- Science and Technology for Disaster Mitigation 3B: Practical Actions for Disaster Mitigation (2)(GSES)
- English Communication in Environmental Issues(GSES)
- >Japan's Development Experience(GSID)
- ➤ Development Cooperation(GSID)
- ➤ Development Assistance(GSID)
- ➤Theory on Non-Governmental Organizations(GSID)
- ➤ Development Economics(GSID)
- Law and Development(GSID)
- ➤ Political Institution Theory(GSID)
- ➤International Development and Poverty(GSID)
- ➤International Environmental Law(GSID)
- Sustainable Tourism and Development



Local, **Traditional** 

**Indigenous** Knowledge



Technological Innovation

- >Field Seminar on Environmental Studies(GSES)
- ➤ Practical Seminar on Developing Sustainable Local Communities (GSES)
- ➤On-site Research Training in Clinical Environmental Studies I(GSES)
- ➤On-site Research Training in Clinical Environmental Studies II(GSES)
- ➤ Studies in Cultural Resources I (GSH)
- Studies in Cultural Resources II (GSH)
- ➤ Studies in Cultural Resources III (GSH)
- ▶ Practical training on Anthropological Fieldwork a(GSH)
- ➤ Practical training on Anthropological Fieldwork b(GSH)
- ▶ Practical Field training on Archives and Text Studies(GSH)
- ➤ Practical Training on Field Archaeology(GSH)

Civil Engineering and Policies for Developing Countries | (ENGG)

- ➤ Environmental Studies on Natural Resources and Energy(GSES)
- Analysis for Biological Materials(GSBS)

>Advanced Biomass Science(GSBS)

**Nagoya University Education for Sustainable Development Program** by 6 Graduate Schools (GSES, GSID, GSBS, ENGG, SOEC, GSH)

