

Environmental Engineering and Architecture, Graduate School of Environmental Studies

Master’s Course <前期課程>

都市環境学専攻

| Course Categories<br>科目区分              | Course Format<br>授業形態 | 授業科目          | Course Title                                             | Lecturer<br>担当教員                                           | Credits<br>単位数 | Civil and Environmental<br>Engineering Graduate Program<br>環境土木工学プログラム |
|----------------------------------------|-----------------------|---------------|----------------------------------------------------------|------------------------------------------------------------|----------------|------------------------------------------------------------------------|
|                                        |                       |               |                                                          |                                                            |                | Starts 開講時期                                                            |
| Interdisciplinary<br>courses<br>体系理解科目 | Lecture<br>講義         | 持続可能性と環境学     | Sustainability and Environmental Studies                 | ZINCHENKO Anatoly, Hiroki TANIKAWA, Miho IRYO              | 2              | 1, 2Autumn                                                             |
|                                        |                       | サステナブル都市学     | Sustainable City Studies                                 | Hiroki TANIKAWA, Heinz SCHANDL                             | 2              | 1, 2Spring                                                             |
|                                        |                       | 環境コミュニケーション   | English Communication in Environmental Issues            | Miho IRYO, Sohyun CHUN                                     | 2              | 1Spring                                                                |
|                                        |                       | 環境都市システム論     | Environmental Urban Systems                              | Miho IRYO                                                  | 2              | 1, 2Autumn                                                             |
|                                        |                       | 途上国開発特論Ⅰ      | Civil Engineering and Policies for Developing CountriesⅠ | Miho IRYO, Kiichiro HAYASHI                                | 2              | 1Autumn, 2Autumn<br>(offered every other year)                         |
|                                        |                       | 途上国開発特論Ⅱ      | Civil Engineering and Policies for Developing CountriesⅡ | Miho IRYO                                                  | 2              | 1Autumn, 2Autumn<br>(offered every other year)                         |
| Type 1 courses<br>Ⅰ類                   | Lecture<br>講義         | エネルギー環境システム論  | Energy and Environmental Systems                         | Hiroto SHIRAKI                                             | 2              | 1, 2Autumn                                                             |
|                                        |                       | 環境社会システム工学    | Environmental Systems Analysis and Planning              | Hiroki TANIKAWA                                            | 2              | 1, 2Spring                                                             |
|                                        |                       | 交通システム分析      | Transportation Systems Analysis                          | Tomio MIWA                                                 | 2              | 1, 2Spring                                                             |
|                                        |                       | 都市空間環境マネジメント論 | Theory of Environmental Management in Urban Space        | Hirokazu KATO                                              | 2              | 1, 2Spring                                                             |
|                                        |                       | 交通工学特論        | Advanced Traffic Engineering and Management              | Hideki NAKAMURA                                            | 2              | 1, 2Spring                                                             |
|                                        |                       | 気候変動と社会基盤     | Climate Change and Infrastructure                        | Miho IRYO                                                  | 2              | 1, 2Autumn                                                             |
|                                        |                       | 環境リスク論        | Environmental Risk                                       | Kengo TOMITA, Rumiko HAYASHI, Takaaki HARADA               | 2              | 1, 2Autumn                                                             |
|                                        |                       | 水・廃棄物工学       | Water and Waste Engineering                              | Nagahisa HIRAYAMA                                          | 2              | 1, 2Spring                                                             |
|                                        |                       | 環境産業システム論     | Environmental Industry Systems                           | Miho IRYO, Hiroki TANIKAWA                                 | 2              | 1, 2Autumn                                                             |
|                                        |                       | 土木工学のフロンティア   | Frontier in Civil Engineering                            | Director of Civil and Environmental Engineering and others | 2              | 1, 2Spring                                                             |
| Type 2 courses<br>Ⅱ類                   | Seminar<br>セミナー       | 空間環境学セミナー1A   | Seminar on Urban Space and Environment 1A                | Hiroto SHIRAKI                                             | 2              | 1Spring                                                                |
|                                        |                       | 空間環境学セミナー1B   | Seminar on Urban Space and Environment 1B                | Hiroto SHIRAKI                                             | 2              | 1Autumn                                                                |
|                                        |                       | 空間環境学セミナー1C   | Seminar on Urban Space and Environment 1C                | Hiroto SHIRAKI                                             | 2              | 2Spring                                                                |
|                                        |                       | 空間環境学セミナー1D   | Seminar on Urban Space and Environment 1D                | Hiroto SHIRAKI                                             | 2              | 2Autumn                                                                |
|                                        |                       | 空間環境学セミナー2A   | Seminar on Urban Space and Environment 2A                | Hirokazu KATO                                              | 2              | 1Spring                                                                |
|                                        |                       | 空間環境学セミナー2B   | Seminar on Urban Space and Environment 2B                | Hirokazu KATO                                              | 2              | 1Autumn                                                                |
|                                        |                       | 空間環境学セミナー2C   | Seminar on Urban Space and Environment 2C                | Hirokazu KATO                                              | 2              | 2Spring                                                                |
|                                        |                       | 空間環境学セミナー2D   | Seminar on Urban Space and Environment 2D                | Hirokazu KATO                                              | 2              | 2Autumn                                                                |
|                                        |                       | 空間環境学セミナー3A   | Seminar on Urban Space and Environment 3A                | Toshiyuki YAMAMOTO, Tomio MIWA                             | 2              | 1Spring                                                                |
|                                        |                       | 空間環境学セミナー3B   | Seminar on Urban Space and Environment 3B                | Toshiyuki YAMAMOTO, Tomio MIWA                             | 2              | 1Autumn                                                                |
|                                        |                       | 空間環境学セミナー3C   | Seminar on Urban Space and Environment 3C                | Toshiyuki YAMAMOTO, Tomio MIWA                             | 2              | 2Spring                                                                |
|                                        |                       | 空間環境学セミナー3D   | Seminar on Urban Space and Environment 3D                | Toshiyuki YAMAMOTO, Tomio MIWA                             | 2              | 2Autumn                                                                |
|                                        |                       | 空間環境学セミナー4A   | Seminar on Urban Space and Environment 4A                | Hideki NAKAMURA, Miho IRYO, Xin ZHANG                      | 2              | 1Spring                                                                |
|                                        |                       | 空間環境学セミナー4B   | Seminar on Urban Space and Environment 4B                | Hideki NAKAMURA, Miho IRYO, Xin ZHANG                      | 2              | 1Autumn                                                                |
|                                        |                       | 空間環境学セミナー4C   | Seminar on Urban Space and Environment 4C                | Hideki NAKAMURA, Miho IRYO, Xin ZHANG                      | 2              | 2Spring                                                                |
|                                        |                       | 空間環境学セミナー4D   | Seminar on Urban Space and Environment 4D                | Hideki NAKAMURA, Miho IRYO, Xin ZHANG                      | 2              | 2Autumn                                                                |
|                                        |                       | 空間環境学セミナー5A   | Seminar on Urban Space and Environment 5A                | Hiroki TANIKAWA, Hiroaki SHIRAKAWA                         | 2              | 1Spring                                                                |
|                                        |                       | 空間環境学セミナー5B   | Seminar on Urban Space and Environment 5B                | Hiroki TANIKAWA, Hiroaki SHIRAKAWA                         | 2              | 1Autumn                                                                |
|                                        |                       | 空間環境学セミナー5C   | Seminar on Urban Space and Environment 5C                | Hiroki TANIKAWA, Hiroaki SHIRAKAWA                         | 2              | 2Spring                                                                |
|                                        |                       | 空間環境学セミナー5D   | Seminar on Urban Space and Environment 5D                | Hiroki TANIKAWA, Hiroaki SHIRAKAWA                         | 2              | 2Autumn                                                                |
|                                        |                       | 空間環境学セミナー7A   | Seminar on Urban Space and Environment 7A                | Nagahisa HIRAYAMA                                          | 2              | 1Spring                                                                |
|                                        |                       | 空間環境学セミナー7B   | Seminar on Urban Space and Environment 7B                | Nagahisa HIRAYAMA                                          | 2              | 1Autumn                                                                |
|                                        |                       | 空間環境学セミナー7C   | Seminar on Urban Space and Environment 7C                | Nagahisa HIRAYAMA                                          | 2              | 2Spring                                                                |

|                      |                 |                 |                                                         |                                                      |   |            |
|----------------------|-----------------|-----------------|---------------------------------------------------------|------------------------------------------------------|---|------------|
|                      |                 | 空間環境学セミナー7D     | Seminar on Urban Space and Environment 7D               | Nagahisa HIRAYAMA                                    | 2 | 2Autumn    |
| Type 3 courses<br>Ⅲ類 | Exercises<br>演習 | 環境社会システム工学実習    | Practice in Environmental Systems Analysis and Planning | Hiroki TANIKAWA, Kiichiro HAYASHI, Hiroaki SHIRAKAWA | 1 | 1,2Autumn  |
|                      |                 | 社会システム分析実習      | Practice in Social Systems                              | Tomio MIWA                                           | 1 | 1,2Spring  |
|                      |                 | インターンシップ        | Internship Program                                      | Course Chief                                         | 1 | Occasional |
|                      |                 | グローバル研究インターンシップ | Global Research Internship                              | Hiroki TANIKAWA                                      | 2 | Occasional |

Research supervision 研究指導

Method of Completion and Research Supervision (履修方法及び研究指導)

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Master of Environmental Studies<br>修士 (環境学) | <p>1. (1) The requirements stated in the following items i) to iii) must be met and a total of at least 30 credits must be acquired.</p> <p>(以下の i)～iii)の各項を満たし、合計30単位以上)</p> <p>ⅰ Interdisciplinary courses (体系理解科目) :<br/>Minimum 8 credits (8 単位以上)</p> <p>ⅱ Type 1,2 and 3 courses (Ⅰ類, Ⅱ類, Ⅲ類) :<br/>Minimum 20 credits including minimum 8 credits from Type 2 courses (20 単位以上. ただし, Ⅱ類の授業科目 8 単位以上を含むこと)</p> <p>ⅲ Other departments of graduate schools (他専攻, 他研究科等の授業科目) :<br/>Credits can be counted as degree credits. (単位数として含めることができる)</p> <p>2. Research supervision: students will be subject to instruction by academic advisors under the rules prescribed by the department.<br/>(研究指導については、専攻において定めるところにより、指導教員の指示によること)</p>                                                                                                                                                 |
| Master of Engineering<br>修士 (工学)            | <p>1. (1) The requirements stated in the following items i) to iv) must be met and a total of at least 30 credits must be acquired.</p> <p>(以下の i)～iv)の各項を満たし、合計30単位以上)</p> <p>ⅰ Interdisciplinary courses (体系理解科目) :<br/>Minimum 4 credits (4 単位以上)</p> <p>ⅱ Type 1,2 and 3 courses (Ⅰ類, Ⅱ類, Ⅲ類) :<br/>Minimum 20 credits including minimum 8 credits from Type 2 courses (20 単位以上. ただし, Ⅱ類の授業科目 8 単位以上を含むこと)</p> <p>ⅲ Courses provided by the Graduate School of Engineering and courses in Course Table 1 (工学研究科の科目及び履修授業科目表1)<br/>Minimum 4 credits (4 単位以上)</p> <p>ⅳ Other departments of graduate schools (他専攻, 他研究科等の授業科目) :<br/>Credits can be counted as degree credits. (単位数として含めることができる)</p> <p>2. Research supervision: students will be subject to instruction by academic advisors under the rules prescribed by the department.<br/>(研究指導については、専攻において定めるところにより、指導教員の指示によること)</p> |

Course Table 1 (履修授業科目表1)  
Mandatory Subjects

| Degree                           | Mandatory Subjects                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Master of Engineering<br>修士 (工学) | Type 1 Courses (Lectures) (Ⅰ類科目)<br>Frontier in Civil Engineering (土木工学のフロンティア) / Environmental Systems Analysis and Planning (環境社会システム工学) / Water and Waste Engineering (水・廃棄物工学) / Transportation Systems Analysis (交通システム分析) / Advanced Traffic Engineering and Management (交通工学特論) / Energy and Environmental Systems (エネルギー環境システム論) / Theory of Environmental Management in Urban Space (都市空間環境マネジメント論) / Climate Change and Infrastructure (気候変動と社会基盤) / Environmental Risk (環境リスク論) / Environmental Industry Systems (環境産業システム論) |