

■ 環境都市工学科 Department of Civil Engineering

環境都市工学科は、市民の生命と安全を守り、人々が心豊かで快適な生活を送ることができる社会や都市をつくり、さらに環境を創造する「社会工学」とも「市民工学」とも呼ばれる広い分野を担当する学科です。わたしたちの社会生活を支えているいろいろな社会基盤施設（インフラストラクチャ）には、交通施設、都市施設、エネルギー関連施設、防災施設などがありますが、環境都市工学科ではそのような社会基盤施設をハードウェア、ソフトウェアの両面から取り扱う幅の広い高度な技術体系の知識を修得します。

さらに環境都市工学は、社会やそこに生きる人々、そして自然や生き物をも相手にしたダイナミックな分野ですから、知識や技術だけでなく人間としての広い視野と見識、創造力が求められます。したがって、個々の学問分野だけではなく、人文・社会科学などの素養をもとに工学技術体系を総合する能力を身に付け、地球環境を保全し人間と自然が共生する豊かな文明社会を創造することを目指す教育を行っています。

The Department of Civil Engineering seeks the creation of societies and cities which protect the lives and safety of citizens while also enabling people to lead a rich and comfortable life. The department is in charge of a broad field that is also known as social engineering and public engineering. This field is concerned with the creation of living environments. Our social lives are supported by a variety of infrastructure that includes transportation systems, city facilities, energy-related facilities and disaster-prevention facilities. At the Department of Civil Engineering, students acquire a broad range of high-level, systematic knowledge concerning both the hardware and software perspective of such social infrastructure.

Civil engineering is also a dynamic field which deals with society, people living in society, nature and life. Accordingly, the field of civil engineering requires not only knowledge and skills, but also a broad range of human perspectives, insights and creativity. Therefore, students acquire the ability to integrate an engineering system based on not only individual academic fields, but also disciplines such as the humanities and social sciences. Our department conducts education which seeks to protect the global environment and to creation of a rich civilization in which humankind and nature can coexist.

● 教育目標 Educational Goals

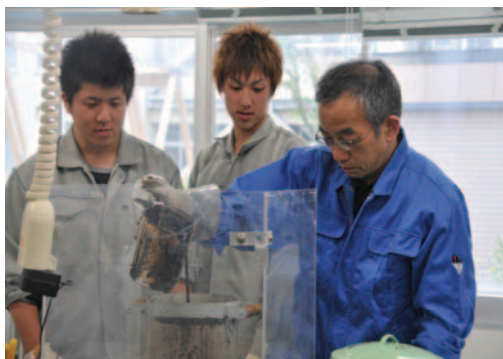
1. チームの一員としての役割と責任を理解して自主的・継続的に行動できる技術者
Engineers who are capable of understanding their roles and responsibilities as a member of a team and who are capable of taking independent and continuous action.
2. 数学、自然科学や土木・環境技術などの環境都市工学に関する基礎的な知識を持ち、それを活用できる技術者
Engineers who possess fundamental knowledge in mathematics, natural science, civil technology, environmental technology and other aspects of civil engineering, and who are capable of utilizing that knowledge.
3. 設計製図や卒業研究などの環境都市工学に関する技術にコンピュータを活用でき、情報処理の基本技術について理解している技術者
Engineers who are capable of utilizing a computer when creating design drawings, performing graduate research and conducting other technical tasks related to civil engineering, and who understand the fundamental technology of information processing.
4. 国際社会の歴史、文化、地理、政治・経済などについて理解した上で、環境都市工学の果たす役割や自然に及ぼす影響を認識して、地域社会の発展に貢献するなど、技術者としての倫理と責任を自覚して行動できる技術者
Engineers who understand history, culture, geography, politics and economics in the perspective of international society, who recognize the role of civil engineering and the effect that the field has on the natural environment, and who are capable of contributing to the growth of regional society and taking actions that show an understanding of the ethics and responsibilities of engineers.
5. 自分の考えを論理的な文章にまとめ、成果をプレゼンテーションできるとともに、基礎的な英語コミュニケーションができる技術者
Engineers who are capable of summarizing their thought in a logical written format, who are capable of giving presentations of results, and who are capable of basic communication in English.
6. 卒業研究や設計製図、創成科目を通じて、問題解決に向かって総合的な知識を動員し、関連技術を組み合わせることで具体的な結果の方向を見出すことができる技術者
Engineers who, through graduate research, the creation of design drawings and the activities of construction courses, are capable of discovering the orientation for specific results by combining related technology and mobilizing their comprehensive knowledge in order to conduct problem-solving.

教員 Teaching Staff

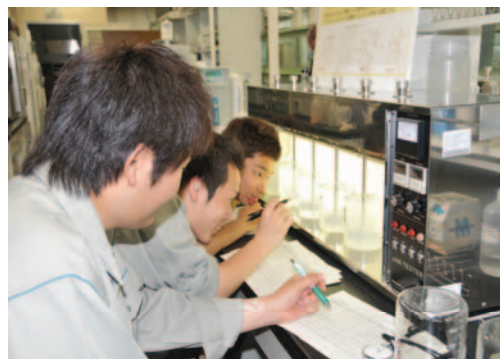
| 職名 Title | 氏名 Name | 学位 Degree | 専門分野 Research Field | 校務 Duties |
|----------------------------|-----------------------------|--|---|---|
| 教授 Professor | 大久保孝樹 OKUBO, Takaki | 博士(工学) D. Eng. | 環境工学 Environmental Engineering 衛生工学 Sanitary Engineering | 環境都市工学科 4年担任、同留学生指導教員 Class Director for 4th Year Students of Department of Civil Engineering Guidance Counselor for 4th Year Foreign Students of Department of Civil Engineering |
| 教授 Professor | 澤村 秀治 SAWAMURA, Shuji | 工学修士 M. Eng 技術士(建設部門) P. E. Jp (Civil Engineering) | コンクリート工学 Concrete Engineering | 環境都市工学科主任 Chairman of Department of Civil Engineering 環境都市工学科 3年担任、同留学生指導教員 Class Director for 3rd Year Students of Department of Civil Engineering Guidance Counselor for 3rd Year Foreign Students of Department of Civil Engineering |
| 教授 Professor | 渡邊 力 WATANABE, Chikara | 博士(工学) D. Eng. | 構造工学 Structural Engineering | 環境都市工学科 2年担任 Class Director for 2nd Year Students of Department of Civil Engineering 点検評価委員会委員長 Chairman of Review and Evaluation Committee |
| 准教授 Associate Professor | 藤原 隆 FUJIWARA, Takashi | | 交通工学 Traffic Engineering | 環境都市工学科 1年担任 Class Director for 1st Year Students of Department of Civil Engineering |
| 准教授 Associate Professor | 平沢 秀之 HIRASAWA, Hideyuki | 博士(工学) D. Eng. | 橋梁工学 Bridge Engineering | |
| 准教授 Associate Professor | 佐々木恵一 SASAKI, Keiichi | 博士(工学) D. Eng. | 土地利用計画 Land Use Planning 都市計画 City Planning | 環境システム工学専攻 2年担任 Class Director for 2nd Year Students of Environmental System Engineering Course |
| 准教授 Associate Professor | 宮 武 誠 MIYATAKE, Makoto | 博士(工学) D. Eng. | 水文学 Hydrology 海岸工学 Coastal Engineering | 環境都市工学科 5年担任 Class Director for 5th Year Students of Department of Civil Engineering |
| 准教授 Associate Professor | 山崎 俊夫 YAMAZAKI, Toshio | 博士(工学) D. Eng. | 景観工学 Landscape Engineering | |
| 助教 Assistant Professor | 小玉 齊明 KODAMA, Nariaki | 博士(工学) D. Eng. | 岩盤力学 Rock Mechanics | |
| 助教 Assistant Professor | 片岡沙都紀 KATAOKA, Satsuki | 博士(工学) D. Eng. | 地盤工学 Geotechnical Engineering | |

● 主な実験・実習の設備 Equipment of main experiment and practical training

- ・連立型万能試験機 (コンクリート・構造実験室)
- ・コンクリート超音波測定器 (コンクリート・構造実験室)
- ・一面せん断試験装置 (土質実験室 A)
- ・三軸圧縮試験装置 (土質実験室 B)
- ・ジャーテスター (水理実験室)
- ・マイクロ流れ測定装置 (環都卒研室 3-1)
- ・シビルステーション (測量機材室)
- ・デジタルセオドライト (測量機材室)
- ・針入度試験器 (交通工学実験室)
- ・軟化点試験器一式 (交通工学実験室)
- ・3面スクリーン投影システム (空間計画実験室)
- ・循環型管水路装置 2 系統 (水理実験室)
- ・Reynolds 実験装置 (水理実験室)
- ・Alliance-type Universal Tester (Concrete and Construction Laboratory)
- ・Concrete ultrasonic measuring instrument (Concrete and Construction Laboratory)
- ・Box shear test apparatus (Soil Laboratory A)
- ・Triaxial compression test apparatus (Soil Laboratory B)
- ・Jar tester (Hydraulic Laboratory)
- ・Micro-flow meter (Civil Engineering Graduation Research Room 3-1)
- ・Civil station (Measurement Equipment Room)
- ・Digital theodolite (Measurement Equipment Room)
- ・Penetration tester (Transportation Engineering Laboratory)
- ・Softening point tester set (Transportation Engineering Laboratory)
- ・3-faced screen projection system (Spatial Planning Laboratory)
- ・Ring shaped-type pipe waterway equipment 2 system (Hydraulic Laboratory)
- ・Reynolds experimental device (Hydraulic Laboratory)



▲ 環境都市工学実験 Civil Engineering Laboratory



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教育課程 Curriculum

| 区分 Classification | 科目名 Subjects | 単位数 Credits | 学年別単位数 Credits by Grade | | | | | |
|---------------------------|--|---|----------------------------|-----------|-----------|-----------|-----------|-------|
| | | | 1年 1st | 2年 2nd | 3年 3rd | 4年 4th | 5年 5th | |
| 必修科目 Required Subjects | 応用数学Ⅰ | Applied Mathematics I | 2 | | | | 2 | |
| | 応用数学Ⅱ | Applied Mathematics II | 2 | | | | | 2 |
| | 応用物理 | Applied Physics | 2 | | | | 2 | |
| | 情報処理演習Ⅰ | Practice on Computer Programming I | 2 | | | 2 | | |
| | 情報処理演習Ⅱ | Practice on Computer Programming II | 1 | | | | 1 | |
| | 測量学・測量実習 | Survey and Surveying Practice | 8 | 1 | 2 | 3 | 2 | |
| | 図学 | Drawing | 1 | 1 | | | | |
| | 構造力学 | Structural Mechanics | 7 | 1 | 2 | 2 | 2 | |
| | コンクリート工学 | Concrete Engineering | 1 | | 1 | | | |
| | コンクリート構造学 | Theory of Concrete Structure | 5 | | 1 | 2 | 2 | |
| | 構造工学 | Structural Engineering | 3 | | | | 2 | 1 |
| | 水理学 | Hydraulics | 5 | | 1 | 2 | 2 | |
| | 水文学 | Hydrology | 1 | | | | | 1 |
| | 水資源工学 | Water Resources Engineering | 1 | | | 1 | | |
| | 応用地学 | Applied Geology | 2 | 2 | | | | |
| | 専門英語演習 | Practice in Engineering English | 1 | | | | | 1 |
| | 土質工学 | Soil Engineering | 4 | | | 2 | 2 | |
| | 道路工学 | Highway Engineering | 1 | | | | 1 | |
| | 施工技術 | Constructional Executions | 1 | | | | | 1 |
| | 施工管理 | Construction Management | 1 | | | | | 1 |
| | 交通工学 | Traffic Engineering | 2 | | | | | 2 |
| | 都市計画 | City Planning | 1 | | | | 1 | |
| | 土木計画学 | Infrastructure Planning | 1 | | | 1 | | |
| | 衛生工学 | Sanitary Engineering | 2 | | | | 2 | |
| | 環境生物学 | Environmental Biology | 1 | | | 1 | | |
| | 建設CAD | Construction CAD | 1 | | | 1 | | |
| | 構造設計製図Ⅰ | Design and Drawing Laboratory I | 2 | | | | 2 | |
| | 構造設計製図Ⅱ | Design and Drawing Laboratory II | 2 | | | | | 2 |
| | 環境都市工学実験 | Civil Engineering Laboratory | 4 | | | | 2 | 2 |
| | 環境都市工学通論 | Introduction to Civil Engineering | 1 | 1 | | | | |
| 創造デザイン演習 | Practice in Creative Design | 2 | | 2 | | | | |
| 創造設計制作演習 | Practice in Advanced Creative Design | 1 | | | | 1 | | |
| 技術と社会 | Technology for Public Works | 1 | | | 1 | | | |
| 卒業研究 | Graduation Research on Civil Engineering | 8 | | | | | 8 | |
| 履修単位数計 | Subtotal of Required Credits | 80 | 6 | 9 | 18 | 26 | 21 | |
| 選択科目 Elective Subjects | 耐震工学 | Earthquake-Resistant Engineering | 1 | | | | | 1 |
| | 地盤工学 | Geotechnical Engineering | 1 | | | | | 1 |
| | 流体力学 | Fluid Mechanics | 1 | | | | | 1 |
| | 環境保全 | Environmental Preservation | 1 | | | | | 1 |
| | 計画数理 | Mathematical methods for Planning | 1 | | | | | 1 |
| | 地域計画 | Regional Planning | 1 | | | | | 1 |
| | 環境工学 | Environmental Engineering | 1 | | | | | 1 |
| | 数値解析学 | Numerical Analysis | 1 | | | | | 1 |
| | 防災工学 | Disaster Prevention Engineering | 1 | | | | | 1 |
| | 建設材料学 | Construction Materials | 1 | | | | | 1 |
| | 景観工学 | Landscape Engineering | 1 | | | | | 1 |
| | 計測工学 | Instrumentation Technology | 1 | | | | | 1 |
| | 火薬学・同実験 | Explosives and Laboratory | 1 | | | | | 1 |
| | 学外実習 | On-the-Job Training on Civil Engineering | 1 | | | | 1 | |
| | 開設単位数計 | Subtotal of Elective Credits | 14 | | | | 1 | 13 |
| 履修単位数計 | Subtotal of Required Credits | 8 | | | | 0~1 | 7~8 | |
| 専門科目開設単位数合計 | | Total Credits Offered | 94 | 6 | 9 | 18 | 27 | 34 |
| 専門科目履修単位数合計 | | Total Credits Required (Professional Education) | 88 | 6 | 9 | 18 | 26~27 | 28~29 |
| 一般科目履修単位数合計 | | Total Credits Required (General Education) | 79 | 27 | 24 | 16 | 6 | 6 |
| 履修単位数合計 | | Total Credits Required for Graduation | 167 | 33 | 33 | 34 | 32~33 | 34~35 |

いずれか8単位選択
Selection of any 8 credits