

The following lectures are given in English at the School of Engineering,
The University of Tokyo, 2018/2019

1. Graduate Program

Department of Civil Engineering (社会基盤学専攻)

3713-002	Modeling of Concrete Performance	S1S2
3713-005	Wind Engineering and Structures	S 1
3713-007	Advanced Structural Design	A 2
3713-014	Advanced Hydrology	S 1
3713-020	Advanced Transportation Engineering	A 2
3713-021	Infrastructure Management	S1S2
3713-026	Urban Disaster Mitigation Engineering	A1A2
3713-030	Nonlinear Mechanics of Reinforced Concrete	A 2
3713-033	Computational Earthquake Engineering	A 2
3713-034	Nonlinear Analysis in Civil Engineering	A 1
3713-043	Spatial Statistical Analysis	A 1
3713-045	Projects in Developing Countries	A 2
3713-046	Frontier of Civil Engineering II	A 1
3713-051	International English for Civil Engineers I	S1S2
3713-052	International English for Civil Engineers II	A1A2
3713-065	Japanese for Civil Engineers	Full Year From April
3713-072	Dynamics, Control and Monitoring of Structures	A 1
3713-074	Flood Disaster Simulation	S1S2
3713-080	Geographic Information Systems	S 1
3713-082	Earthquake and Geo-disaster Mitigation Engineering	A1A2
3713-084	Integrated Knowledge on Disaster and Environmental Risk Management	A1A2
3713-089	Remote sensing E	A 1
3713-090	Photogrammetry and Pattern Recognition E	S 1
3713-091	Advanced Geotechnical Engineering E	S 1
3713-092	Principles of Geotechnical Engineering E	A1A2
3713-093	River Engineering E	S 1
3713-094	Advanced Coastal Engineering E	S 2
3713-095	Sediment transport in hydrosphere E	A1A2
3713-096	Hydrospheric Science Project E	S1S2
3713-097	Transportation and urban design studio E	A 1
3713-099	Wind Power Engineering E	S 1
3713-116	Coastal Hydrodynamics	S 1
3713-118	Case Studies of International Projects	S 2
3713-119	Economics and Finance for Infrastructure Engineering	A 1
3713-120	Innovations in Civil Engineering	S 1
3713-121	Designing infrastructure projects in developing countries	A 2

Department of Architecture (建築学専攻)

3714-045	Research in Architecture IA	S1S2
3714-046	Research in Architecture IB	A1A2
3714-047	Research in Architecture IIA	S1S2
3714-048	Research in Architecture IIB	A1A2
3714-049	Individual Research in Architecture IA	S1S2
3714-050	Individual Research in Architecture IB	A1A2
3714-056	Advanced Management of Project	S1S2
3714-085	Shell and Large Span Structures	S 1
3714-090	Research in Architecture IIIA	S1S2
3714-091	Research in Architecture IIIB	A1A2
3714-092	Research in Architecture IVA	S1S2
3714-093	Research in Architecture IVB	A1A2
3714-094	Research in Architecture VA	S1S2
3714-095	Research in Architecture VB	A1A2
3714-096	Individual Research in Architecture IIA	S1S2
3714-097	Individual Research in Architecture IIB	A1A2
3714-098	Architecture and Cities in Japan 1	S1S2
3714-099	Architecture and Cities in Japan 2	A1A2
3714-105	Mechanical and Electrical Systems in Buildings	S 1
3714-108	Internship 1	Full Year From April
3714-109	Internship 2	Full Year From April
3714-113	Special Seminar for Architectural Practice I	Full Year From April
3714-114	Special Seminar for Architectural Practice II	Full Year From April
3714-116	Architectural Concepts and Design Methodologies	S1S2
3714-119	Computational Design in Architecture	A1A2
3714-130	Architectural Design I A	S1S2
3714-131	Architectural Design I B	A1A2
3714-132	Architectural Design II A	S1S2
3714-133	Architectural Design II B	A1A2

Department of Urban Engineering (都市工学専攻)

3716-037	Advanced Course in Environmental Engineering Laboratory	A 1
3716-043	Environmental Systems Analysis	A 1
3716-045	Advanced Water Quality Engineering	S 1

3716-091	Environmental Reaction Kinetics	A 2
3716-094	Fundamentals of Water Pollution Control	A 2
3716-116	Urban Water Systems	S1S2
3716-119	Appropriate Technology for Environmental Sanitation II	S 2
3716-132	Environmental Field Exercise I (E)	Full Year From April
3716-133	Environmental Field Exercise II (E)	Full Year From April
3716-134	Environmental Field Exercise III (E)	Full Year From April
3716-135	Environmental Field Exercise IV (E)	Full Year From April
3716-142	Risk Mnagement of Urban Flood Disaster	A 1
3717-016	Studio Work in Urban Development 1	S 1
3717-017	Studio Work in Urban Development 2	S 2
3717-018	Studio Work in Urban Development 3	A 1
3717-019	Studio Work in Urban Development 4	A 2
3717-020	Urban Transport Policy	A 1
3717-021	Urban Transport Planning and Analysis	A 2
3717-024	Hazardous Waste Management	A 2
3717-025	Environmental Risk Management	S 1
3717-031	Regional Planning	A 1
3717-032	Urban Development Policy and Planning	A 2
3717-041	Systems and Tools toward a Sound Material-cycle Society	S 2
3717-044	Advanced Course in Environmental Microbiology	A1A2

Department of Mechanical Engineering (機械工学専攻)

3722-004	Micro Thermal and Fluids Systems	A1A2
3722-057	Fluid Structure Interaction -Modeling and Design	S1S2
3722-060	Molecular Thermo-Fluid Engineering	S1S2
3722-101	Applied Mathematics for Mechanical Engineering	S 1
3722-107	Solid Mechanics Seminar	A1A2
3722-108	Advanced Thermal and Fluids Engineering	A1A2
3722-112	Molecular Dynamics & Nanotechnology	A1A2
3722-114	Active Vibration Control	A1A2
3722-118	Basic Theory of Extended Nano Space	A1A2
3722-119	Nano/Micro Energy Systems	A1A2
3724-052	The Practice of Machine Design	A1A2
3724-080	Information and Measurement	S 1

Department of Precision Engineering (精密工学専攻)

3729-045	Practice in International Workshop on Precision Engineering	Full Year From April
3729-046	Advanced Practice of Precision Engineering M	Full Year From April
3729-047	Advanced Practice of Precision Engineering D1	Full Year From April
3729-048	Advanced Practice of Precision Engineering D2	Full Year From April
3729-049	Special Seminar of Precision Engineering M	Full Year From April
3729-050	Special Seminar of Precision Engineering D	Full Year From April
3729-076	Design Thinking	S 2
3729-077	Disruptive Innovation Methodology	A 1

Department of Aeronautics and Astronautics (航空宇宙工学専攻)

3734-107	Waves and Fracture	S1S2
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Department of Systems Innovation (システム創成学専攻)

3736-106	Complex Fluid System Modeling	S1S2
3736-107	Global Environmental and Energy Policy	A 2
3736-123	Recycling process and system engineering	A1A2
3736-131	Cognitive Society Design	A 1
3736-137	Simulation Technologies for Complicated/Complex Phenomena	S 1

Department of Electrical Engineering and Information Systems (電気系工学専攻)

3747-018	System and Control Theory	S1S2
3747-046	Fundamentals of Semiconductor Devices	A1A2
3747-100	Physics and Technology of Solar Cells	A 1
3747-104	Organic Electronics	S1S2
3747-110	Multithreaded Parallel Computing	S1S2
3747-118	Fundamentals of Optics and Photonics	A1A2

Department of Applied Physics (物理工学専攻)

3752-056	Condensed Matter Physics	A 1
3752-084	Material Science	S1S2
3752-085	Computational Physics	S1S2

Department of Materials Engineering (マテリアル工学専攻)

3765-041	Advanced Materials Engineering I	A1A2
3765-042	Advanced Materials Engineering II	S 1
3765-113	Advanced Lecture on Mechanics of Materials	S 1
3765-136	High temperature Materials Processing	S 2
3765-154	Advanced Lecture on Biodevice Materials	S 1
3765-158	Advanced Lecture on Material Synthesis Using Supercritical Fluid	S 1
3765-159	Introduction to Quantum Modeling of Materials	S1S2

Department of Applied Chemistry (応用化学専攻)

3771-087	Organic Chemistry: Structure, Reaction, and Synthesis V	A 2
3771-403	Basic Physical Chemistry I	S 1
3771-404	Basic Physical Chemistry II	S 2
3771-405	Basic Organic Chemistry I	S 1
3771-406	Basic Organic Chemistry II	S 2
3771-407	Basic Inorganic/Analytical Chemistry I	S 1
3771-408	Basic Inorganic/Analytical Chemistry II	S 2
3771-435	Special Lecture on Advanced Chemistry V	Full Year From April
3771-441	Special Lecture on Advanced Chemistry VI	Full Year From April

Department of Chemical System Engineering (化学システム工学専攻)

3773-044	Advanced Chemical Reaction Engineering	S1S2
3773-058	Presentation, Discussion and Reporting	A1A2
3773-112	Advanced Lectures on Separation Engineering	S1S2
3773-118	Fluid Mechanics Principles in the Fabrication of Functional Coatings	A1A2
3773-167	Advanced lecture on pharmaceutical process systems engineering	A 2
3773-403	Basic Physical Chemistry I	S 1
3773-404	Basic Physical Chemistry II	S 2
3773-405	Basic Organic Chemistry I	S 1
3773-406	Basic Organic Chemistry II	S 2
3773-407	Basic Inorganic/Analytical Chemistry I	S 1
3773-408	Basic Inorganic/Analytical Chemistry II	S 2
3773-434	Special Lecture on Advanced Chemistry IV	Full Year From April
3773-435	Special Lecture on Advanced Chemistry V	Full Year From April

3773-441	Special Lecture on Advanced Chemistry VI	Full Year From April
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Department of Chemistry and Biotechnology (化学生命工学専攻)

3775-100	Organic Chemistry: Structure, Reaction, and Synthesis V	A 2
3775-109	Organic Chemistry: Structure, Reaction, and Synthesis IV	A 1
3775-403	Basic Physical Chemistry I	S 1
3775-404	Basic Physical Chemistry II	S 2
3775-405	Basic Organic Chemistry I	S 1
3775-406	Basic Organic Chemistry II	S 2
3775-407	Basic Inorganic/Analytical Chemistry I	S 1
3775-408	Basic Inorganic/Analytical Chemistry II	S 2
3775-434	Special Lecture on Advanced Chemistry IV	Full Year From April
3775-435	Special Lecture on Advanced Chemistry V	Full Year From April
3775-441	Special Lecture on Advanced Chemistry VI	Full Year From April

Department of Advanced Interdisciplinary Studies (先端学際工学専攻)

3788-034	University Entrepreneurship	A1A2
3788-043	Leadership-talent growth program(II)-English in Advanced Science and Technology-	A1A2
3788-049	Advanced Environmental Science and Energetics	A1A2
3788-059	Environmental Science I	S1S2
3788-061	Energy Science I	S1S2
3788-076	Needs-Inspired Invention and Entrepreneurship	S1S2
3788-078	Fundamentals of Advanced Materials and Devices	A1A2

Department of Nuclear Engineering and Management (原子力国際専攻)

3789-032	Nuclear Reactor Theory and Radiation Physics	S 1
3789-033	Nuclear Thermal-hydraulics and Structural Mechanics	S 2
3789-034	Overview of Energy Systems	S 2
3789-035	Social Science Essentials	S 1
3789-036	Chemistry in Nuclear Engineering	S 1
3789-037	Radiation Biology	S 1
3789-038	Fundamentals in Nuclear Physics	S 1
3789-039	Nuclear Safety Engineering	A1A2
3789-040	Maintenance Engineering in Complex Systems	S1S2
3789-041	Radiation Safety	S1S2

3789-042	Nuclear Fuel Engineering	A1A2
3789-043	Nuclear Nonproliferation and Security	A1A2
3789-045	Nuclear Plant Engineering	A1A2
3789-046	Applied Radiation Engineering	A1A2
3789-047	Management of Spent Fuel and Radioactive Waste	A1A2
3789-050	Quantum Beam Engineering	S1S2
3789-051	Advanced Radiation Application	S1S2
3789-054	Energy Systems Analysis	A1A2
3789-055	Advanced Lecture on Next Generation Nuclear Energy Systems	A1A2
3789-059	Introduction to Nuclear Engineering	A1A2
3789-060	Special Lecture on Decommissioning and Dismantling	A1A2
3789-061	Advanced Laser and Photon Science	S1S2
3789-073	Colloquiums on Nuclear Engineering and Management I	S1S2
3789-074	Colloquiums on Nuclear Engineering and Management II	A1A2
3789-075	Workshop on Nuclear Engineering and Management	S1S2
3789-090	Nuclear Engineering Master's Course Seminar 1	S1S2
3789-091	Nuclear Engineering Master's Course Seminar 2	A1A2
3789-092	Nuclear Engineering Master's Course Seminar 3	S1S2
3789-093	Nuclear Engineering Master's Course Seminar 4	A1A2
3789-094	Nuclear Engineering Doctoral Course Seminar 1	S1S2
3789-095	Nuclear Engineering Doctoral Course Seminar 2	A1A2
3789-096	Nuclear Engineering Doctoral Course Seminar 3	S1S2
3789-097	Nuclear Engineering Doctoral Course Seminar 4	A1A2
3789-098	Nuclear Engineering Doctoral Course Seminar 5	S1S2
3789-099	Nuclear Engineering Doctoral Course Seminar 6	A1A2
3789-105	Nuclear Engineering Master's Course Exercise 1	S1S2
3789-106	Nuclear Engineering Master's Course Exercise 2	A1A2
3789-107	Nuclear Engineering Master's Course Exercise 3	Full Year From April
3789-109	Colloquiums on Nuclear Engineering and Management III	Full Year From April
3789-113	Nuclear Engineering Doctor's Course Exercise 1	S1S2
3789-114	Nuclear Engineering Doctor's Course Exercise 2	S1S2
3789-115	Nuclear Engineering Doctor's Course Exercise 3	S1S2
3789-116	Nuclear Engineering Doctor's Course Exercise 4	A1A2
3789-117	Nuclear Engineering Doctor's Course Exercise 5	A1A2
3789-118	Nuclear Engineering Doctor's Course Exercise 6	A1A2

Department of Bio Engineering (バイオエンジニアリング専攻)

3791-108	Advanced Biomaterials	A 2
3791-113	Radiation Biology	S 1

3791-115	Advanced Biodevices	A1A2
3791-116	Bioengineering exercise for social implementation 1	A1A2
3791-117	Bioengineering exercise for social implementation 2	A1A2
3791-118	Basic Biology	S 1
3791-119	Overview of Chemical Bioengineering	S 2
3791-121	Basic Bioelectronics	S 1
3791-122	Overview of Bioelectronics	S 2
3791-213	Overview of Biodevices 2	S1S2
3791-215	Overview of Biomaterials 2	S1S2
3791-521	Bioengineering Seminar 1(A)	S1S2
3791-522	Bioengineering Seminar 1(B)	A1A2
3791-523	Bioengineering Seminar 2(A)	S1S2
3791-524	Bioengineering Seminar 2(B)	A1A2
3791-601	Bioengineering Seminar 3(A)	S1S2
3791-602	Bioengineering Seminar 3(B)	A1A2
3791-603	Presentation and writing in bioengineering	A1A2
3791-604	Advanced Experiments on Bioengineering 5	Full Year From April
3791-605	Advanced Research on Bioengineering 5	Full Year From April

Department of Technology Management for Innovation (技術経営戦略学専攻)

3792-129	Risk Management	A1A2
3792-130	Innovation and Entrepreneurship	A1A2
3792-131	International Intellectual Property Management	A1A2
3792-132	Econometric Analysis	A1A2
3792-135	Economic Development of Japan	S1S2
3792-140	Resilience Informatics for Innovation	A1A2
3792-141	Global Business Strategy and Policy	S1S2
3792-142	Quantitative Methods for Management and Policy Analysis	S 1
3792-146	Science, Technology and Public Policy	A 1
3792-150	Advanced Technology Management	A1A2
3792-154	Risk and regulatory policy	A1A2

General Subjects (共通)

3799-023	Creativity Engineering Project II	A1A2
3799-027	Advanced Academic Writing	A 1
3799-028	Advanced Academic Presentation	A 2
3799-029	Academic Writing	S 1
3799-030	Academic Presentation	S 2

3799-136	Advanced Lecture on Resilience Engineering	S1S2
3799-138	Systems Safety	S1S2
3799-139	Sensing for Resilient Systems	A1A2
3799-154	UT-SNU Remote Lecture VIII	S1S2
3799-800	Higher Perspectives for Biomedical Engineering	Full Year From April

Undergraduate Program

*I : Intensive, NAE: Not Available for Exchange Students

Department of Civil Engineering (社会基盤学科)

FEN-CE4m17T2	Independent Project	Full Year From April	I*
FEN-CE4m18T2	Civil Engineering Project	Full Year From April	I/NAE*
FEN-CE5m41L3	Projects in Developing Countries	A1A2	
FEN-CE4002L3	Basic International Communication II	A1A2	
FEN-CE4001L3	Basic International Communication I	S1S2	
FEN-CE5a14L3	Wind Engineering and Structures	S 1	
FEN-CE5a16L3	Dynamics, Control and Monitoring of Structures	A 1	
FEN-CE5a13L3	Advanced Geotechnical Engineering	S 1	
FEN-CE5a15L3	Advanced Structural Design	A 2	
FEN-CE5408L3	Economics and Finance for Infrastructure Engineering	A1	
FEN-CE5a18L3	Computational Earthquake Engineering	A2	
FEN-CE5m34L3	Case Studies of International Projects	S2	
FEN-CE5m42L3	Innovations in Civil Engineering	S1	

Department of Urban Engineering (都市工学科)

FEN-UE4919T2	Graduation Thesis, Urban Engineering	A1A2	I/NAE
FEN-UE3913S2	Global seminar on urban engineering 1	S 1	
FEN-UE3914S2	Global seminar on urban engineering 2	A 1	

Department of Mechanical Engineering (機械工学科)

FEN-MX5604L3	Information and Measurement	S1	
FEN-MX5b23L3	Applied Mathematics for Mechanical Engineering	S1	
FEN-MX3905S2	Seminar of Mechanical Engineering in English	A1A2	
FEN-MX3b30L3	Robotics I	S1	
FEN-MX3b31L3	Robotics II	S2	

Department of Aeronautics and Astronautics (航空宇宙工学科)

FEN-AA4u82L2 [Introduction to Aerospace System Engineering](#) S1

Department of Precision Engineering (精密工学科)

FEN-PE4000S2 [Presentation in English for Precision Engineering A](#) S1S2
FEN-PE4001S2 [Presentation in English for Precision Engineering B](#) S1S2
FEN-PE3903S2 [Seminar and factory tour](#) A1A2

Department of Applied Physics (物理工学科)

FEN-AM4244L2 [Solid State Physics \(4\)](#) A 1
FEN-MP4940S2 [Seminar in Mathematical Information Engineering](#) S1S2
FEN-MP4704S2 [Seminar in Information Physics and Computing 2](#) A1A2
FEN-MP4923S2 [Exercises in Mathematical Information Engineering 2A](#) S1S2
FEN-MP4924S2 [Exercises in Mathematical Information Engineering 2B](#) A1A2
FEN-MP3920S1 [Exercises in Mathematical Information Engineering 1A](#) S1S2
FEN-MP4940S2 [Seminar in Mathematical Information Engineering](#) S1S2
FEN-MP4703S2 [Seminar in Information Physics and Computing 1](#) S1S2
FEN-AP3961S2 [Seminar in Applied Physics 1](#) S1S2
FEN-AP4970S2 [Advanced Seminar in Applied Physics](#) S1S2

Department of Materials Engineering (マテリアル工学科)

FEN-MA2914L3 [UT-MIT International Lecture](#) A1A2 I
FEN-MA3902S3 [Seminars for Materials Engineering](#) S1S2
FEN-MA3e22L3 [Introduction to Structural Materials](#) A1A2 I
FEN-MA3e23L3 [Introduction to Semiconductor Materials](#) A1A2 I
FEN-MA3f02L3 [Introduction to Nano-Biomaterials](#) A1A2 I
FEN-MA4913T2 [Graduation Thesis in Materials Engineering](#) Full Year From April I/NAE
FEN-MA4914L3 [UT-MIT International Lecture](#) A1A2
FEN-MA4e24L3 [Applied Composite Materials](#) S1
FEN-MA4e25L3 [Applied Materials Sciences of Photonic Devices](#) S1
FEN-MA4e26L3 [Applied Materials Science of Biodevices](#) S1
FEN-MA4e27L3 [Applied Physical Metallurgy of Steel](#) S1
FEN-MA4e28L3 [Applied Semiconductor Processes](#) S1
FEN-MA4f03L3 [Applied Medical Material Science](#) S1

Department of Chemistry and Biotechnology (化学生命工学科)

FEN-CA4990T2 [Graduation Thesis, Applied Chemistry](#) Full Year From April I/NAE

FEN-CB2001L3	Introductory lectures for chemistry and biotechnology	A1A2	
FEN-CB4990T2	Graduation Thesis, Chemistry and Biotechnology	Full Year From April	I/NAE
FEN-CH3317L2	Chemical Reaction Engineering I	A1A2	
FEN-CH3m07S1	Chemical Engineer and Exercises I	A1A2	
FEN-CH4000P2	Presentation Discussion and Reporting	A1A2	
FEN-CS3m04S2	Readings on Chemical Systems Engineering	A1A2	
FEN-CS4304L2	Chemical Reaction Engineering II	S1S2	
FEN-CS4305L2	Separation Technology II	S1S2	
FEN-CS4990T2	Graduation Thesis, Chemical System Engineering	Full Year From April	I/NAE

Department of System Innovations (システム創成学科)

FEN-SA4011L3	Communication Technique A1		S 2
FEN-SA4012L3	Communication Technique A2		S 2
FEN-SI3b41L3	Heat Transfer and Thermodynamics		A 1
FEN-SI4502L3	Advanced Environment & Energy		S 2
FEN-SI4b31L3	Fundamental Mechanics		S 1
FEN-SI4n04L3	Energy Beam Applications and Quantum/Relativistic Mechanics		S1S2
FEN-SI4n06L3	Nuclear Reactor Engineering		S1S2

General Subjects (共通)

FEN-CO3001L1	Academic Writing		S 1
FEN-CO3002L1	Academic Presentation		S 2
FEN-CO4420L3	Sustainable Urban Management		S1S2
FEN-CO4450L3	Visualizing Japan in the Modern World		A1A2
FEN-CO4901P2	Creativity Engineering Project for Undergraduate I		S1S2
FEN-CO4902P2	Creativity Engineering Project for Undergraduate II		A1A2
FEN-CO4903P2	Creativity Engineering Project for Undergraduate III		S1S2
FEN-CO4940L3	Nanoscience		S1S2