

Department of Industrial Science (Doctoral Course)

Division	Research and Education Field	Class	Unit	Faculty	Class Style
Applied Chemistry of Materials	Applied Physical Chemistry and Quantum Chemistry	Advanced Quantum Chemistry	2	SAKAKI Shigeyoshi	Seminar
		Theoretical Chemistry of Materials	2	SUGIMOTO Manabu	Seminar
		Advanced Nuclear Chemistry	2	KISHIKAWA Toshiaki	Seminar
	Chemistry of Functional Molecules	Chemistry of Organic Functional Materials	2	SHOSENJI Hideto	Seminar
		Chemistry of Functional Polymers	2	JYO Akinori	Seminar
	Chemistry of Advanced Materials	Chemistry of Inorganic Materials	2	MATSUMOTO Yasumichi	Seminar
		Applied Chemistry of Metal Complexes	2	KOINUMA Mutsuo	Seminar
	Molecular Design Chemistry	Synthetic Chemistry of Polymer Materials	2	HIRAYAMA Chuichi	Seminar
		Applied Chemistry of Functional Polymers	2	NONAKA Takamasa	Seminar
		Molecular Architecture of Functional Polymers	2	KURIHARA Seiji	Seminar
Electroanalytical Chemistry		2	IHARA Toshihiro	Seminar	
Physical Chemistry of Liquid		2	KAWAHARA Masayasu	Seminar / Every year	
Materials Science and Technology	Physical Property of Materials	Design of Materials Science	2	KOZUKA Toshiyuki	Seminar / Every year
		Principles of Physical Metallurgy	2	TONDA Hideki	Seminar / Every year
	Structure Control of Materials	Computational Materials Science	2	ANDO Shinji	Seminar / Every year
		Structure Control of Metallic Materials	2	CHIBA Akira	Seminar / Every year
	Advanced Materials Forming	Characterization of Nano Structure Materials	2	NISHIDA Minoru	Seminar / Every year
		Advanced Material Processing	2	MIURA Hideshi	Seminar / Every year
	Semiconductor Packaging Technology	Powder Metallurgy and Ceramics	2	MIURA Hideshi	Seminar / Every year
		Intelligent Materials Science	2	OHNO Yasuhide	Seminar / Every year
	Extreme Environment Materials Science	Semiconductor Packaging Materials	2	OHNO Yasuhide	Seminar / Every year
		Advanced Course of the Physical Properties of Condensed Matters	2	KURODA Noritaka	Seminar / Every year
Mechanical System Design	Engineering Physics and Mechanics	Advanced Course of Electronic Properties of Condensed Matters	2	KAGAYAMA Tomoko	Lecture / Every year
		Advanced Aerodynamics	2	MATSUO Hideo	Seminar / Every year
	Fluid Energy Engineering	Continuum Mechanics	2	HIROE Tetsuyuki	Seminar / Every year
		Nonequilibrium Thermodynamics	2	FUJIWARA Kazuhito	Seminar / Every year
	Heat Transfer and Fluid Flow	Fluid Energy Conversion	2	OHBA Hideki	Seminar / Every year
		Heat and Mass Transfer	2	IMURA Hideaki	Seminar, Paper / Every year
	in Mechanical Systems	Numerical Heat Transfer and Fluid Flow	2	SASAGUCHI Kengo	Lecture, Seminar / Every year
		Multiphase Fluids Mechanics	2	SADATOMI Michio	Seminar / Every year

Division	Research and Education Field	Class	Unit	Faculty	Class Style
Intelligent Manufacturing Systems	Intelligent Machine Manufacturing System	Precision Machining	2	WATANABE Junji	Seminar / Every year
		Ultra-Precision Machining	2	YASUI Heiji	Seminar / Every year
		Electrical and Physical Processing	2	TOUGE Mutsumi	Seminar / Every year
		Cutting	2	UEDA Noboru	Seminar / Every year
	Shock Wave for Engineering Applications	Shock-Wave Science	2	ITOH Shigeru	Lecture / Every year
		High Energy Rate Fabrication	2	HOKAMOTO Kazuyuki	Concentrated Lecture, Paper/ Every year
		Mechanics of High-Speed Deformation	2	ITOH Shigeru	Lecture / Every year
		Shock Compression Material Science	2	MASHIMO Tsutomu	Seminar / Every year
	Technology of Plasticity	Deformation Processing	2	SAIKI Hiroyuki	Seminar / Every year
		Theory of Plasticity	2	MARUMO Yasuo	Seminar / Every year
		Fracture Mechanics	2	ODA Isamu	Seminar / Every year
		Welding and Evaluation of Materials	2	SATONAKA Shinobu	Concentrated Lecture / Every year
	Strength and Materials Evaluation in Manufacturing	Strength Analysis for Machine Design	2	SAKAMOTO Hidetoshi	Seminar / Every year
		Advanced Sensor Technology	2	TORIGOE Ipppei	Seminar / Every year
		Advanced Signal Processing	2	HARADA Hiroyuki	Concentrated Lecture / Every year
		Pseudo-random Signals	2	KASHIWAGI Hiroshi	Lecture / Every year
Measurement and Signal Processing Systems	Advanced Active Sensing Systems	2	YAMAGUCHI Teruo	Concentrated Lecture / Every year	
	Control Systems Design	2	IWAI Zenta	Lecture / Every year	
	Mechanical Systems Control	2	ISHITOBII Mitsuaki	Lecture / Every year	
	Robust Adaptive Control Systems	2	MIZUMOTO Ikuro	Seminar / Every year	
Thesis (Main thesis)			2		
	Thesis (Sub thesis)		2		

Department of System and Information (Doctoral Course)

Division	Research and Education Field	Class	Unit	Faculty	Class Style	
Intelligent System and Computer Science	Intelligent Control Systems	Intelligent Control Systems	2	KAWAJI Shigeyasu	Seminar / Every year	
		Image Information Processing	2	ICHIMURA Keiichi	Seminar / Every year	
	Sensory Information Processing Systems	Mathematical Systems and Control Theory	2	SHIOTUKI Tetsuo	Seminar / Every year	
		Sensory Information Processing	2	WATANABE Akira	Seminar / Every year	
	Acoustical Information Processing Systems	Information Transformation System	2	UEDA Yuichi	Seminar / Every year	
		Advanced Theory of Acoustic Information I	2	EBATA Masanao	Seminar / Every year	
	Computer Algorithms	Advanced Theory of Acoustic Information II	2	USAGAWA Tsuyoshi	Seminar / Every year	
		Advanced Algorithms Analysis	2	NAKAMURA Ryoza	Seminar / Every year	
	Computer System Architecture	Advanced Computer Architecture I	2	SUEYOSHI Toshinori	Seminar / Every year	
		Advanced Computer Architecture II	2	KUGA Morihito	Seminar / Every year	
	System Software	Advanced System Software	2	UMENO Hidenori	Seminar / Every year	
		Advanced Circuits and Systems Engineering I	2	INOUE Takahiro	Seminar / Every year	
	Electrical and Computer Engineering	Electronics and Communications Systems	Advanced Circuits and Systems Engineering II	2	TSUNEDA Akio	Seminar / Every year
			Ultra-Short Pulse Electromagnetics	2	IKUNO Hiroyoshi	Seminar / Every year
		Advanced Electrical and Computer Engineering	Applied Electromagnetic Sensing	2	NISHIMOTO Masahiko	Seminar / Every year
			Signal Analysis and Measurements I	2	SONODA Yorinobu	Seminar / Every year
Advanced Electrical and Computer Engineering		Signal Analysis and Measurements II	2	SONODA Yorinobu	Seminar / Every year	
		Designing Theory of Signal Converting Circuits	2	SUGITANI Ken-ichi	Seminar / Every year	
Advanced Electrical and Computer Engineering		Applied Power Electronics I	2	HARADA Ikko	Seminar / Every year	
		Applied Power Electronics II	2	HIGASHI Tohru	Seminar / Every year	
Advanced Electrical and Computer Engineering		Chaos System Engineering	2	FUKUSHIMA Kazuhiro	Seminar / Every year	
		Neural and Brain Function Systems	2	MURAYAMA Nobuki	Seminar / Every year	
Advanced Electrical and Computer Engineering	Signals in Biological System	2	MURAYAMA Nobuki	Seminar / Every year		
	Electromagnetic Field Analysis	2	OKUNO Yoichi	Seminar / Every year		
Advanced Electrical and Computer Engineering	Applied Computational Electromagnetics	2	MATSUSHIMA Akira	Seminar / Every year		
	Advanced Multimedia Systems Engineering I	2	MITA Nagahisa	Seminar / Every year		
Biomedical Processing Systems	Advanced Multimedia Systems Engineering II	2	SASAKI Mamoru	Seminar / Every year		
	Processing and Organization of Biosignal Transduction	2	SAKAGUCHI Nobuo	Seminar / Every year		

Division	Research and Education Field	Class	Unit	Faculty	Class Style
Energy System	Electric Energy	Intelligent Systems Applications to Power Systems	2	HIYAMA Takashi	Seminar / Every year
		Bulk Power System Engineering	2	MIYAUCHI Hajime	Seminar / Every year
		Advanced Pulsed Power Technology	2	AKIYAMA Hidenori	Seminar / Every year
		Advanced Plasma Engineering	2	KATSUKI Sunao	Seminar / Every year
		Advanced Discharge Engineering	2	AKIYAMA Hidenori	Seminar / Every year
		Advanced Technologies in Power Systems	2	HIYAMA Takashi	Seminar / Every year
		Advanced Processing Technology for Energy Conversion Materials	2	EBIHARA Kenji	Seminar / Every year
		Intelligent Materials Technology	2	EBIHARA Kenji	Seminar / Every year
		Plasma and Ion Processing Engineering	2	IKBGAMI Tomoaki	Seminar / Every year
		Advanced Laser Energy Applications	2	YAMAGATA Yukihiko	Seminar / Every year
		Theory of Electronic Devices	2	MIYAHARA Kuniyuki	Seminar / Every year
		Theory of Electric Devices	2	FUJIYOSHI Takanori	Seminar / Every year
		Physical Properties of Semiconductor Devices	2	KUBOTA Hiroshi	Concentrated Lecture / Every year
		Advanced Course of Solid State Spectroscopy	2	FUJII Aitsuhiro	Seminar / Every year
Thesis (Main thesis)			2		
Thesis (Sub thesis)			2		

Department of Environmental Science (Doctoral Course)

Division	Research and Education Field	Class	Unit	Faculty	Class Style
Natural Environmental Science	Geosystem Sciences	Marine Geology	2	HONZA Eiichi	Seminar / Alternate year
		Geodynamics	2	SHIBUYA Hidetoshi	Seminar / Alternate year
	Evolution of Earth Environments	Physical Geochemistry	2	NISHIYAMA Tadao	Seminar / Alternate year
		Microbiostratigraphy	2	ODA Motoyoshi	Seminar / Alternate year
		Advanced Paleo-oceanography	2	ODA Motoyoshi	Seminar / Alternate year
		Deep Sea Paleoenvironment	2	AKIMOTO Kazumi	Seminar / Alternate year
		Earth Surface Environment System	2	MATSUDA Hiroki	Seminar / Alternate year
		Advanced Method of Instrumental Analysis	2	SANEMASA Isao	Seminar / Alternate year
	Environmental Analysis	Advanced Analytical Chemistry	2	SANEMASA Isao	Seminar / Alternate year
		Advanced Chemical Measurement	2	TODA Kei	Seminar / Every year
Isotope Science in the Environment		2	MOMOSHIMA Noriyuki	Seminar / Every year	
Advanced Geochemistry		2	NOHDA Susumu	Seminar / Alternate year	
Dynamics of Environments	Advanced Environmental Geophysics	2	FUKUMA Koji	Seminar / Every year	
	Advanced Population Cytogenetics	2	UCHINO Akinori	Seminar / Every year	
	Advanced Environmental Genetics	2	UCHINO Akinori	Seminar / Every year	
	Advanced Diversification of Plants	2	TAKAMIYA Masayuki	Seminar / Every year	
	Advanced Course of Behavioral Ecology	2	SUGIURA Naoto	Lecture / Every year	
	Advanced Geophysics	2	OHMI Michito	Seminar / Every year	
Geoinformatic Engineering	Mathematical Geoinformation Processing	2	KOIKE Katsuaki	Seminar / Every year	
	Advanced Subsurface Space Design	2	SUGAWARA Katsuhiko	Seminar / Every year	
	Advanced Subsurface Space Analysis	2	SUGAWARA Katsuhiko	Seminar / Every year	
	Advanced Measurement for Subsurface Space	2	OBARA Yuzo	Seminar / Every year	
Environmental Conservation Engineering	Conservation of Lowland Environment	2	SUZUKI Atsumi	Seminar / Every year	
	Conservation of Slope-topography Environment	2	KITAZONO Yoshito	Seminar / Every year	
	Geotechnical Earthquake Engineering	2	AKIYOSHI Takashi	Seminar / Every year	
	Advanced Geotechnical Engineering	2	OTANI Jun	Seminar / Every year	
	Water Environmental Analysis	2	TAKIKAWA Kiyoshi	Seminar / Every year	
	Water Environmental Engineering	2	OHMOTO Teunori	Seminar / Every year	
Water Environmental Conservation Engineering	Hydrological Cycle System	2	OHMOTO Teunori	Seminar / Every year	
	Water Environmental System	2	FURUKAWA Kenji	Seminar / Every year	
	Advanced Water Environmental Process	2	HARADA Hiroyuki	Seminar / Every year	

Division	Research and Education Field	Class	Unit	Faculty	Class Style
Disaster-Preventive Structural Engineering	Disaster-prevention Material Technology	Wave Motion in Construction Material	2	SHIGEISHI Mitsuhiro	Lecture / Every year
		Diagnostics of Concrete Structures	2	OHTSU Masayasu	Lecture / Every year
	Disaster-prevention System Design	Repairing and Reinforcing of Existing Structures	2	MITSUJI Yoshiyuki	Concentrated Lecture / Every year
		Ultimate Strength Analysis	2	YAMAHO Toshitaka	Lecture / Every year
		Earthquake Resistant Building	2	SAISHO Motoo	Lecture / Every year
		Stability and Ductility of Steel Structures	2	SAKIMOTO Tatsuro	Lecture / Every year
	Disaster-prevention Building Technology	Construction Method for Joints	2	MAKINO Yuji	Lecture / Every year
		Method of Structural Safety	2	OCHI Kenshi	Lecture / Every year
		Plant-Community Relations and Spatial Disposition of Their Establishments	2	YAMAGUCHI Morito	Seminar / Every year
		Spatial Planning Method	2	IKI Kazuhisa	Seminar / Every year
Human Environmental Engineering	Human Environmental Design	Urban System Analysis	2	MIZOKAMI Shoshi	Seminar / Every year
		Models for Describing and Analyzing Spatial Features of Man's Environment	2	MOROZUMI Mitsuo	Seminar / Every year
	Human Environmental Management	Measurement of Environmental Benefits	2	KAKIMOTO Ryujii	Seminar / Every year
		Thermal Environmental Analysis	2	ISHIHARA Osamu	Seminar / Every year
		Engineering for Energy Conservation in Residential and Commercial Settings	2	ISHIHARA Osamu	Seminar / Every year
		Socio-Cultural Environmental Engineering	2	YANO Takashi	Seminar / Every year
	Human Environmental History	Preservation and Rehabilitation of Historic Environment	2	ITO Ryutichi	Seminar / Every year
		History and Theory of Mediterranean Architecture	2	ITO Juko	Seminar / Every year
		Theory of Japanese Architectural Design	2	KITANO Takashi	Seminar / Every year
		Design of Civil Engineering for Landscape	2	KOBAYASHI Ichiro	Seminar / Every year
Thesis (Main thesis)			2		
Thesis (Sub thesis)				2	

Department of Materials and Life Science (Doctoral Course)

Division	Research and Education Field	Class	Unit	Faculty	Class Style
Basic Chemistry and Physics for Material Science	Fundamental Physics	Advanced Condensed Matter Physics I	2	ANIYA Masaru	Lecture / Every year
		Advanced Condensed Matter Physics II	2	ANIYA Masaru	Lecture / Every year
	Fundamental Condensed Matter Physics	Advanced Course of Solid State Physics	2	OKADA Kunihide	Lecture / Every year
		Advanced Course of Micro and Radio Wave Spectroscopy	2	OKADA Kunihide	Lecture / Every year
		Advanced Course of Low Temperature Physics	2	FUJII Munenaki	Lecture / Every year
		Advanced Course of Physics of Thin Films	2	ITOH Kikuo	Lecture / Every year
		Current Topics Coordination Chemistry	2	MATSUMOTO Naohide	Lecture / Every year
		Molecular-Based Assembly Metal Complex	2	MATSUMOTO Naohide	Lecture / Every year
	Inorganic and Organic Chemistry	Synthetic Chemistry of Metal Complex	2	NAKAMURA Masaaki	Lecture / Every year
		Organometallic Chemistry	2	NISHINO Hiroshi	Lecture / Every year
Organic Natural Product Chemistry		2	NISHINO Hiroshi	Lecture / Every year	
Advanced Synthetic Organic Reactions		2	IMAFUKU Kimiaki	Lecture / Every year	
Physical and Solid State Chemistry	Advanced Chemical Spectroscopy	2	MATSUZAKI Susumu	Lecture / Every year	
	Advanced Solid State Chemistry	2	ICHIMURA Kenji	Lecture / Every year	
Applied Chemistry for Material and Life Science	Chemical Process Engineering	Surface Science	2	FUJIMOTO Hitoshi	Lecture / Every year
		Mass Transport Theory	2	HIROSE Tsutomu	Lecture, Seminar / Every year
	Chemistry for Superstructural Materials	Molecular Separation Engineering	2	GOTO Motonobu	Lecture, Seminar / Every year
		Theoretical Chemistry on Molecular Reaction	2	MUSASHI Yasuo	Lecture, Seminar / Every year
	Applied Chemistry of Cell Functions	Supramolecular Chemistry of Molecular Assemblies	2	IHARA Hirotsuka	Lecture, Seminar / Every year
		Structural Estimation and Function of Materials	2	KUNITAKE Masashi	Lecture, Seminar / Every year
		Molecular Design for Biomimetic Chemistry	2	IHARA Hirotsuka	Lecture, Seminar / Every year
		Chemistry of Biologically Related Compounds	2	KIDA Kenji	Lecture, Seminar / Every year
	Applied Bioelectrochemistry	Applied Chemistry of Biological Functions	2	MORIMURA Shigeru	Lecture, Seminar / Every year
		Advanced Bioelectrochemistry	2	TANIGUCHI Isao	Lecture, Seminar / Every year
Application of Functional Electrode		2	NISHIYAMA Katsuhiko	Lecture, Seminar / Every year	
Interfacial Chemistry for Electron Transfer Reactions		2	TANIGUCHI Isao	Lecture, Seminar / Every year	

Division	Research and Education Field	Class	Unit	Faculty	Class Style
Bioinformational Science	Informational Science on Biological Regulation	Advanced Plant Physiological Biochemistry	2	YOSHITAMA Kunjiro	Seminar / Every year
		Advanced Plant Physiology	2	YOSHITAMA Kunjiro	Seminar / Every year
	Informational Science on Cellular Function	Molecular Genetics of Plant Metabolism	2	TAKIO Susumu	Seminar / Every year
		Advanced Molecular and Cell Biology	2	SHIODA Masaki	Seminar / Every year
		Molecular Cancer Cell Biology	2	IZUTA Shunji	Concentrated Lecture / Every year
		Advanced Endocrinology	2	TAKETOMI Yoko	Seminar / Every year
	Informational Science on Body Formation	Cellular and Molecular Physiology	2	TAKANO Hiroyoshi	Seminar / Every year
		Developmental Biology	2	ABE Shinichi	Seminar / Every year
		Molecular Developmental Biology	2	TAKAMUNE Kazushi	Seminar / Every year
		Plant Morphogenesis	2	ONO Kanji	Seminar / Every year
Thesis (Main thesis)		Environmental Life Science	2	KUWANA Takashi	Concentrated Lecture / Every year
Thesis (Sub thesis)			2		

Common to the Course

Division	Research and Education Field	Class	Unit	Faculty	Class Style
Common to the Course		Up-dated Science & Technology in Japan	1	All Staff	Lecture / Every year
		English for Science & Technology	1	All Staff	Lecture / Every year