

List of classes in Graduate School of Science, Osaka City University (2021)

Master's Course

<Division of Mathematics & Physics>

Disciplinary Classes
(Mathematical Structure Theories) Topics in Mathematical Structures 1, 2, 3, 4 Advanced Algebra I, II, III, IV Advanced Geometry I, II, III, IV Selected Topics in Algebraic Structures I, II, III, IV Selected Topics in Geometric Structures I, II, III, IV Exercises in Mathematical Structures
(Mathematical Analysis) Mathematical Analysis 1, 2, 3, 4 Advanced Analysis I, II, III, IV Introduction to Mathematics I, II Selected Topics in Analysis I, II, III, IV Exercises in Mathematical Analysis
(Fundamental Physics) Quantum Field Theory Theory of Elementary Particles Relativistic Theory of Gravitation Relativistic Astrophysics Nuclear Physics I, II Selected Topics in Fundamental Physics IA, IB, IIA, IIB, III Exercises in Fundamental Physics
(Astroparticle and High Energy Physics) High Energy Physics I, II Cosmic Ray Physics I, II Experimental Physics of Cosmic-rays and Elementary Particles I, II Experimental Physics of Gravitational Waves Astrophysics Selected Topics in Astro and High Energy Physics I, II, III Selected Topics in Particle Physics I, II, III Exercises in Astro and High Energy Physics
(Condensed-Matter Physics) Condensed Matter Physics I, II Quantum Statistical Physics I, II Low Temperature Physics Optical Properties of Condensed Matter Atomic Physics Low Temperature Solid State Physics Selected Topics in Solid State Physics IA, IB, IIA, IIB Selected Topics in Condensed Matter Physics IA, IB, IIA, IIB Exercises in Condensed Matter Physics

Interdisciplinary Classes
Mathematical Sciences A, B, C Selected Topics in Mathematical Sciences I, II Mathematical Physics I, II, III, IV, V, VI Computational Science Selected Topics in Mathematical Physics I, II, III International Advanced Research Course for Master's Thesis of Science 1, 2
Special Research Class
Advanced Research Course for Master's Thesis of Science

<Division of Molecular Materials Science>

Disciplinary Classes
(Foundational Classes) Core Organic Chemistry Core Inorganic Chemistry Core Physical Chemistry
(Fundamental Classes) Creative Molecular Science Functional Molecular Science
(Creative Molecular Science) Creative Advanced Organic Chemistry I, II Creative Advanced Inorganic Chemistry I, II Creative Advanced Physical Chemistry I, II Creative Advanced Molecular Science Exercises in Creative Molecular Science
(Functional Molecular Science) Functional Advanced Organic Chemistry I, II Functional Advanced Inorganic Chemistry I, II Functional Advanced Physical Chemistry I, II Functional Advanced Biophysical Chemistry I, II Functional Advanced Molecular Science Exercises in Functional Molecular Science
(Special Lectures) Selected Topics in Creative Organic Chemistry 1, 2 Selected Topics in Creative Inorganic Chemistry 1, 2 Selected Topics in Creative Physical Chemistry 1, 2 Selected Topics in Functional Organic Chemistry 1, 2 Selected Topics in Functional Inorganic Chemistry 1, 2 Selected Topics in Functional Physical Chemistry 1, 2 Selected Topics in Exploring Molecular Chemistry 1, 2 Selected Topics in Integrated Molecular Chemistry 1 2
(Interdisciplinary Classes) International Seminar International Advanced Research Course for Master's Thesis of Science 1, 2
Special Research Classes
Advanced Research Course for Master's Thesis of Science
Graduate School Common Classes
Advanced Technology and Science in Chemical Industry

<Division of Biology & Geosciences>

Disciplinary Classes	
(Science of Biomolecules)	<ul style="list-style-type: none"> Advanced Metabolic Biochemistry Advanced Microbiological Chemistry I, II Advanced Enzyme Chemistry Advanced Biology of Functional Proteins I, II Selected Topics in Sciences of Biomolecules I, II Exercises in Science of Biomolecules
(Functional Biosciences)	<ul style="list-style-type: none"> Advanced Biology of Plant Functions I, II Advanced Animal Development I, II Advanced Molecular Cell Biology I, II Selected Topics in Sciences of Molecular Biofunctions I, II Exercises in Molecular Biofunctions
(Functional Biology of Natural History)	<ul style="list-style-type: none"> Advanced Socio-ecology I, II Advanced Information Biology I, II Advanced Genetics of Plant Evolution Selected Topics in Functional Biology of Natural History I, II Exercises in Functional Biology of Natural History
(Environmental Geosciences)	<ul style="list-style-type: none"> Advanced Natural History of Anthropogene II Advanced Lecture on Exploration Geophysics Urban Geology Geoinformatics Advanced Geoinformatics Advanced Spatial Information Science Selected Topics in Environmental Geosciences I, II, III, IV Exercises in Environmental Geosciences
(Earth Evolution Sciences)	<ul style="list-style-type: none"> Advanced Earth's Material Science I, II Special Lecture in Petrology I, II Advanced Historical Geology Selected Topics in Earth Evolution Sciences I, II, III, IV Exercises in Earth Evolution Sciences
Interdisciplinary Classes	
	<ul style="list-style-type: none"> Functional Ecology Advanced Functional Ecology Symbiosis between Nature and Humankind Selected Topics in Global Change of Bio-environment I, II, III Selected Topics of Advanced Biology Advanced Natural History of Anthropogene I Earth Evolution System International Advanced Research Course for Master's Thesis of Science 1, 2
Special Research Classes	
	<ul style="list-style-type: none"> Advanced Research Course for Master's Thesis of Science

Doctoral Course

Division of Mathematics & Physics
Seminar in Mathematical Structures Seminar in Mathematical Analysis Seminar in Fundamental Physics Seminar in Astroparticle and High Energy Physics Seminar in Condensed Matter Physics International Advanced Research Course 1, 2, 3 Advanced Research Course for Doctoral Thesis of Science
Division of Molecular Materials Science
Seminar in Creative Molecular Science Seminar in Functional Molecular Science Leadership Training Program Academic Exchange Study Interdisciplinary Planner Training Program International Advanced Research Course for Doctoral Thesis of Science 1, 2, 3 Advanced Research Course for Doctoral Thesis of Science
Division of Biology & Geosciences
Seminar in Science of Biomolecules Seminar in Functional Biosciences Seminar in Functional Biology of Natura History Seminar in Environmental Geosciences Seminar in Earth Evolution Sciences International Advanced Research Course for Doctoral Thesis of Science 1, 2, 3 Advanced Research Course for Doctoral Thesis of Science