

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
01010	Philosophy and ethics-related	11	Humanities
	Philosophy in general, Ethics in general, Western philosophy, Western ethics, Japanese philosophy, Japanese ethics, Applied ethics, etc.		
01020	Chinese philosophy, Indian philosophy and Buddhist philosophy-related	11	Humanities
	Chinese philosophy/thought, Indian philosophy/thought, Buddhist philosophy, Bibliography, Philology, etc.		
01030	Religious studies-related	11	Humanities
	History of religions, Philosophy of religion, Theology, Sociology of religion, Psychology of religion, Anthropology of religion, Studies of religious folklore, Mythology, Bibliography, Philology, etc.		
01040	History of thought-related	11	Humanities
	History of thought in general, History of Western thought, History of Eastern thought, History of Japanese thought, etc.		
01050	Aesthetics and art studies-related	11	Humanities
	Philosophy of art, Aesthetics, Miscellaneous art studies, etc.		
01060	History of arts-related	11	Humanities
	Japanese art, Eastern art, Western art, Contemporary art, Craft, Design, Architecture, Costume, Photography, etc.		
01070	Theory of art practice-related	11	Humanities
	Art expression, Arts management, Art policy, Art production, etc.		
01080	Sociology of science, history of science and technology-related	11	Humanities
	Sociology of science, History of science, History of technology, History of medicine, Industrial archeology, Philosophy of science, Foundation of science, STS (Science, technology and society), etc.		
02010	Japanese literature-related	12	Humanities
	Japanese literature in general, Ancient literature, Medieval literature, Chinese classics in Japan, Bibliography, Philology, Premodern literature, Modern literature, Contemporary literature, Literary theory, etc.		
02020	Chinese literature-related	12	Humanities
	Chinese literature, Bibliography, Philology, Literary theory, etc.		
02030	English literature and literature in the English language-related	12	Humanities
	English literature, American literature, Literature in the English language, Literary theory, Bibliography, Philology, etc.		
02040	European literature-related	12	Humanities
	French literature, Literature in the French language, German literature, Literature in the German language, Classics, Russian and East European literature, Literature in other European languages, Literary theory, Bibliography, Philology, etc.		
02050	Literature in general-related	12	Humanities
	Literature in other languages and areas, Literary theory, Comparative literature, Bibliography, Philology, Literature education, etc.		
02060	Linguistics-related	12	Humanities
	Phonetics/phonology, Semantics/pragmatics, Morphosyntax, Sociolinguistics, Contrastive linguistics, Psycholinguistics, Neurolinguistics, Historical linguistics, Corpus linguistics, Endangered and minority languages, etc.		

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Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
02070	Japanese linguistics-related	12	Humanities
	Phonetics/phonology, Writing systems, Lexicon and semantics, Grammar, Stylistics, Pragmatics, Language life, Dialect, History of the Japanese language, History of Japanese linguistics, etc.		
02080	English linguistics-related	12	Humanities
	Phonetics/phonology, Lexicon and semantics, Grammar, Stylistics, Pragmatics, Sociolinguistics, Diversity of the English language, Corpus linguistics, History of the English language, History of English linguistics, etc.		
02090	Japanese language education-related	12, 25	Humanities, Social sciences
	Research on learners, Language acquisition, Teaching material, Curriculum evaluation, Japanese language education for specific purposes, Bilingual education, Research on teachers, Japanese language for Japanese language education, History of Japanese language education, Cross-cultural understanding, etc.		
02100	Foreign language education-related	12, 25	Humanities, Social sciences
	Learning method, Computer-assisted language learning (CALL), Teaching material, Language testing, Theory of second language acquisition, Early English education, History of foreign language education and language policies, Curriculum evaluation, Training foreign language teachers, Cross-cultural understanding, etc.		
03010	Historical studies in general-related	13	Humanities
	Historical theory, Historical methodology, Research in historical materials, Memory and medium, World history, History of cultural and diplomatic exchange, Comparative history, etc.		
03020	Japanese history-related	13	Humanities
	Japanese history in general, History of ancient Japan, History of medieval Japan, History of early modern Japan, History of modern Japan, History of local Japan, History of Japanese culture, History of Japanese religion, History of Japanese environment, History of Japanese city, History of cultural and diplomatic exchange, Comparative history, Research in historical materials, etc.		
03030	History of Asia and Africa-related	13	Humanities
	History of pre-modern China, History of modern China, East Asian history, Central Eurasian history, Southeast Asian history, Oceanian history, South Asian history, West Asian history, African history, History of cultural and diplomatic exchange, Comparative history, Research in historical materials, etc.		
03040	History of Europe and America-related	13	Humanities
	Ancient European history, Medieval European history, Modern and contemporary West European history, Modern and contemporary East European history, North and South American history, History of cultural and diplomatic exchange, Comparative history, Research in historical materials, etc.		
03050	Archaeology-related	13	Humanities
	Archaeology in general, Prehistoric archaeology, Historical archaeology, Japanese archaeology, Asian archaeology, Ancient civilizations, History of material culture, Experimental archaeology, Information archaeology, Study of buried cultural property, etc.		

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03060	Cultural assets study-related	13	Humanities
	Dating methods, Material analysis, Production techniques, Conservation science, Archaeological prospection, Plant and animal residues, Human remains, Cultural heritage, Cultural resources, Cultural property policy, etc.		
03070	Museology-related	13	Humanities
	Exhibition studies, Museum pedagogy, Museum informatics, Museum business management, Public finance and administration of museums, Museum material resources, History of museology, etc.		
04010	Geography-related	14	Humanities
	Geography in general, Land use, Landscape, Environmental system, Geomorphology, Climatology, Hydrology, Cartography, Geographic information system, Regional planning, etc.		
04020	Human geography-related	14	Humanities
	Human geography in general, Economic geography, Social geography, Political geography, Cultural geography, Urban geography, Rural geography, Historical geography, Regional geography, Geography education, etc.		
04030	Cultural anthropology and folklore-related	14	Humanities
	Cultural anthropology in general, Folklore in general, Material culture, Ecology, Social relationship, Religion, Arts, Health care, Border crossing, Minority, etc.		
80010	Area studies-related	14, 22	Humanities, Social sciences
	Area studies in general, Cross-regional comparative studies, Aid, International cooperation, Interregional exchange, Environment, Transnationalism, Globalization, Social development, etc.		
80020	Tourism studies-related	14, 23, 24	Humanities, Social sciences
	Tourism studies in general, Tourism, Tourism resources, Tourism policy, Tourism industry, Regional development, Tourists, Pilgrimage, etc.		
80030	Gender studies-related	14, 22, 24	Humanities, Social sciences
	Gender studies in general, Feminism, Sexuality, Queer studies, Labor, Violence, Prostitution, Reproductive technology, Gender equality, etc.		
05010	Legal theory and history-related	21	Social sciences
	Legal philosophy, Roman law, Legal history, Sociology of law, Comparative law, Foreign law, Law and policy, Law and economics, Judicial system, etc.		
05020	Public law-related	21	Social sciences
	Constitutional law, Administrative law, Tax law, etc.		
05030	International law-related	21	Social sciences
	Public international law, Private international law, International human rights law, International economic law, EU law, etc.		
05040	Social law-related	21	Social sciences
	Labor law, Economic law, Social security law, Education law, etc.		
05050	Criminal law-related	21	Social sciences
	Criminal law, Criminal procedure, Criminology, Criminal justice policy, Juvenile law, Law and psychology, etc.		

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05060	Civil law-related	21	Social sciences
	Civil law, Commercial law, Civil procedure, Insolvency law, Alternative dispute resolution, etc.		
05070	New fields of law-related	21	Social sciences
	Environmental law, Medical law, Information law, Consumer law, Intellectual property law, Law and gender, Legal profession, etc.		
06010	Politics-related	22	Social sciences
	Political theory, History of political thought, Political history, Japanese political history, Japanese politics, Political process, Electoral studies, Political economy, Public administration, Local government, Comparative politics, Public policy, etc.		
06020	International relations-related	22	Social sciences
	Theory of international relations, Modern international relations, Diplomatic history, International history, Foreign policy, International security, International political economy, Global governance, International cooperation, etc.		
07010	Economic theory-related	23	Social sciences
	Microeconomics, Macroeconomics, Game theory, Behavioral economics, Experimental economics, Economic theory, Evolutionary economics, Economic institutions, Economic systems, etc.		
07020	Economic doctrines and economic thought-related	23	Social sciences
	Economic doctrines, Economic thought, Social thought, Economic philosophy, etc.		
07030	Economic statistics-related	23	Social sciences
	Statistical system, Statistical research, Population statistics, Income/wealth distribution, National accounts, Econometrics, Financial econometrics, etc.		
07040	Economic policy-related	23	Social sciences
	International economics, Industrial organization, Economic development, Urban economics, Regional economy, Environmental and resource economics, Japanese economy, Economic policy, Transportation economics, Development economics, International development, etc.		
07050	Public economics and labor economics-related	23	Social sciences
	Public finance, Public economics, Health economics, Labor economics, Social security, Education economics, Law and economics, Political economy, etc.		
07060	Money and finance-related	23	Social sciences
	Monetary economics, Finance, International finance, Corporate finance, Financial engineering, Insurance, etc.		
07070	Economic history-related	23	Social sciences
	Economic history, Business history, Industrial history, etc.		
07080	Business administration-related	23	Social sciences
	Corporation theory, Organization theory, Organizational behavior, Corporate strategy, Business management, Human resource management, Management of technology, International business, Management information, Industrial management, Management in general, etc.		

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07090	Commerce-related	23	Social sciences
	Marketing, Consumer behavior, Distributive sciences, Logistics, Commerce in general, etc.		
07100	Accounting-related	23	Social sciences
	Financial accounting, Management accounting, Auditing, Accounting in general, etc.		
08010	Sociology-related	24	Social sciences
	Sociology in general, Community, Family, Labor, Sociology of welfare, Gender, Media, Ethnicity, Social movements, Social research, Sociology of medicine, Social demography, etc.		
08020	Social welfare-related	24	Social sciences
	Social work, Social policy, Social welfare history, Child welfare, Social welfare for people with disabilities, Social welfare for aging, Community welfare, Poverty, Volunteerism, Social welfare in general, etc.		
08030	Family and consumer sciences, and culture and living-related	24	Social sciences
	Culture and living, Home economics, Consumer affairs, Lifestyle, Culture of clothing, Culture of food, Culture of dwelling, Dress and fashion, Diet habits, Housing, Family and consumer sciences in general, Family and consumer education, etc.		
09010	Education-related	25	Social sciences
	History of education, Philosophy of education, Curriculum and pedagogy, Evaluation of education, Teacher and trainer, School education, Social and community education, Vocational education and training, Lifelong learning, Institutions and administration, etc.		
09020	Sociology of education-related	25	Social sciences
	Sociology of education, Socialization, Educational organization and system, Destination and career formation, Class disparities, Gender, Education policy, Comparative education, Globalization and development, etc.		
09030	Childhood and nursery/pre-school education-related	25	Social sciences
	Childhood, Nursery/pre-school education, Right of child, Development, Contents and methods of child care, Childcare facilities and kindergarten, Caregiver and pre-school teacher, Child care support, Childhood culture, History and thought, etc.		
09040	Education on school subjects and primary/secondary education-related	25	Social sciences
	Education of individual subjects, Education excluding subjects, Student guidance and counselling, Career education, School management, Teacher education, ESD, Environmental education, Literacy, etc.		
09050	Tertiary education-related	25	Social sciences
	Policy, Admission and articulation, Curriculum, Career guidance, Teacher and staff, Scientific research, Regional link and contribution, Globalization, Management and governance, Non-university higher education, etc.		
09060	Special needs education-related	25	Social sciences
	Philosophy and history, Inclusion and cohesive society, Instructions and supports, Developmental disabilities, Emotional disturbance, Intellectual disabilities, Language disorders, Physical disabilities, Career education, etc.		

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09070	Educational technology-related	25	Social sciences
	Curriculum development, Teaching-learning support systems, Utilization of media, Utilization of ICT, Teacher's education, Information literacy, etc.		
09080	Science education-related	25	Social sciences
	Science education, Science communication, Scientific literacy, Science and society, etc.		
10010	Social psychology-related	26	Social sciences
	Social psychology in general, Self, Group, Attitude and behavior, Affection/emotion, Interpersonal relation, Social issues, Culture, etc.		
10020	Educational psychology-related	26	Social sciences
	Educational psychology in general, Development, Family, School, Clinical practice, Personality, Learning, Assessment and evaluation, etc.		
10030	Clinical psychology-related	26	Social sciences
	Clinical psychology in general, Psychological disorder, Assessment, Psychological intervention, Training, Mental health, Crime and delinquency, Community, etc.		
10040	Experimental psychology-related	26	Social sciences
	Experimental psychology in general, Sensation, Perception, Attention, Memory, Language, Emotion, Learning, etc.		
11010	Algebra-related	31	Mathematical and physical sciences
	Group theory, Ring theory, Representation theory, Algebraic combinatorics, Number theory, Arithmetic geometry, Algebraic geometry, Algebraic analysis, etc.		
11020	Geometry-related	31	Mathematical and physical sciences
	Differential geometry, Riemannian geometry, Symplectic geometry, Complex geometry, Topology, Differential topology, Low dimensional topology, etc.		
12010	Basic analysis-related	32	Mathematical and physical sciences
	Functional analysis, Complex analysis, Probability theory, Harmonic analysis, Operator theory, Spectral analysis, Operator algebras, Algebraic analysis, Representation theory, etc.		
12020	Mathematical analysis-related	32	Mathematical and physical sciences
	Functional equations, Real analysis, Dynamical system, Variational method, Nonlinear analysis, Applied analysis, etc.		
12030	Basic mathematics-related	32	Mathematical and physical sciences
	Mathematical logic and foundations, Information theory, Discrete mathematics, Computer mathematics, etc.		
12040	Applied mathematics and statistics-related	32	Mathematical and physical sciences
	Numerical analysis, Mathematical modelling, Optimal control, Game theory, Statistical mathematics, etc.		

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13010	Mathematical physics and fundamental theory of condensed matter physics-related	33	Mathematical and physical sciences
	Statistical physics, Fundamental theory of condensed matter physics, Mathematical physics, Nonequilibrium nonlinear physics, Fluid dynamics, Computational physics, Quantum information theory, etc.		
13020	Semiconductors, optical properties of condensed matter and atomic physics-related	33	Mathematical and physical sciences
	Semiconductors, Dielectrics, Atoms and molecules, Mesoscopic systems, Crystals, Surfaces and interfaces, Optical properties of condensed matter, Quantum electronics, Quantum information, etc.		
13030	Magnetism, superconductivity and strongly correlated systems-related	33	Mathematical and physical sciences
	Magnetism, Strongly correlated electron systems, Superconductivity, Quantum fluids and solids, Molecular solids, etc.		
13040	Biophysics, chemical physics and soft matter physics-related	33	Mathematical and physical sciences
	Physics of biological phenomena, Physics of biological matters, Liquids and glasses, Soft matters, Rheology, etc.		
14010	Fundamental plasma-related	34	Mathematical and physical sciences
	Basic plasmas, Magnetized plasmas, Laser plasmas, Strongly coupled plasmas, Plasma diagnostics, Astrophysical and space plasmas, etc.		
14020	Nuclear fusion-related	34	Mathematical and physical sciences
	Plasma confinement, Plasma control, Plasma heating, Plasma diagnostics, Edge plasma, Plasma wall interaction, Inertial fusion, Fusion material, Fusion system, etc.		
14030	Applied plasma science-related	34	Mathematical and physical sciences
	Plasma processing, Plasma photonics, Plasma material science, General plasma applications, etc.		
80040	Quantum beam science-related	34, 35	Mathematical and physical sciences
	Accelerators, Beam physics, Radiation detectors, Beam control, Applied quantum beam science, etc.		
15010	Theoretical studies related to particle-, nuclear-, cosmic ray and astro-physics	35	Mathematical and physical sciences
	Particle physics, Nuclear physics, Cosmic-ray physics, Astrophysics, Relativity, Gravity, etc.		
15020	Experimental studies related to particle-, nuclear-, cosmic ray and astro-physics	35	Mathematical and physical sciences
	Particle physics, Nuclear physics, Cosmic-ray physics, Astrophysics, Relativity, Gravity, etc.		
16010	Astronomy-related	36	Mathematical and physical sciences
	Optical/infrared astronomy, Radio astronomy, Solar physics, Astrometry, Theoretical astronomy, X-ray/ γ -ray astronomy, etc.		
17010	Space and planetary sciences-related	37	Mathematical and physical sciences
	Solar-terrestrial physics, Aeronomy, Planetary science, Exoplanetary science, Extraterrestrial material science, etc.		
17020	Atmospheric and hydrospheric sciences-related	37	Mathematical and physical sciences
	Climate system, Atmospheric science, Ocean science, Limnology, Glaciology, Paleoclimatology, etc.		
17030	Human geosciences-related	37	Mathematical and physical sciences
	Geoenvironmental science, Natural disaster science, Geospatial information science, Quaternary research, Earth resources science, etc.		

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17040	Solid earth sciences-related	37	Mathematical and physical sciences
	Solid earth geophysics, Geology, Earth's interior material science, Solid earth geochemistry, etc.		
17050	Biogeosciences-related	37	Mathematical and physical sciences
	Origin and evolution of life, Extremophile biology, Biogeochemistry, Paleoenvironmental science, Paleontology, etc.		
32010	Fundamental physical chemistry-related	41	Chemistry
	Theoretical chemistry, Molecular spectroscopy, Structural chemistry, Electronic state dynamics, Chemical reaction dynamics, Surface/interface, Cluster and nano materials, Bio-related physical chemistry, Liquid structure dynamics, Solid state properties, Molecular properties, etc.		
32020	Functional solid state chemistry-related	41	Chemistry
	Optical properties, Electron spin, Molecular electronics and devices, Supermolecules, Liquid crystals, Crystals, Surface/interface, Nano particles, Colloids, Electrochemistry, Electronic properties, etc.		
34010	Inorganic/coordination chemistry-related	41	Chemistry
	Coordination chemistry, Organometallic chemistry, Inorganic solid-state chemistry, Bioinorganic chemistry, Solution chemistry, Clusters, Supramolecular complexes, Coordination polymers, Typical elements, Physical properties and functions, etc.		
34020	Analytical chemistry-related	41	Chemistry
	Spectrometric analysis, Advanced measurements, Surface/interface analysis, Separation analysis, Analytical reagents, Radiochemical analysis, Electrochemical analysis, Bioanalysis, New analysis methods, etc.		
34030	Green sustainable chemistry and environmental chemistry-related	41	Chemistry
	Green process, Green catalysts, Recycle, Environmental assessment, Environmentally conscious materials, Reduction of environmental load, Environmental restoration, Resource saving, Geochemistry, Environmental radioactivity, etc.		
36010	Inorganic compounds and inorganic materials chemistry-related	41	Chemistry
	Crystals, Amorphous, Ceramics, Semiconductors, Inorganic device-related materials, Low-dimensional compounds, Porous materials, Nanoparticles, Multicomponent compounds, Hybrid materials, etc.		
36020	Energy-related chemistry	41	Chemistry
	Energy resources, Energy conversion materials, Energy carriers, Solar energy utilization, Material separation, Catalytic transformation, Battery and electrochemical materials, Energy-saving materials, Renewable energy, Unused energy, etc.		
33010	Structural organic chemistry and physical organic chemistry-related	42	Chemistry
	Organic crystals, Molecular recognition, Supermolecules, Organic functional materials, Extended π -electron system compounds, Heterocyclic chemistry, Organoelement chemistry, Organic reaction mechanism, Organic photochemistry, Theoretical organic chemistry, etc.		
33020	Synthetic organic chemistry-related	42	Chemistry
	Selective reactions, Asymmetric synthesis, Organometallic complex/catalysis, Catalyst design, Organocatalysts, Biocatalysis, Sustainable organic synthesis, Natural product synthesis, Process chemistry, Organic electrochemistry, etc.		
35010	Polymer chemistry-related	42	Chemistry
	Polymer synthesis, Polymer reactions, Precision polymerization, Functional polymers, Self-assembled polymers, Chiral polymers, Bio-related polymers, Polymer properties, Polymer structures, Polymer thin film/surface, etc.		

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35020	Polymer materials-related	42	Chemistry
	Properties of polymer materials, Synthesis of polymer materials, Functional polymer materials, Liquid crystal polymers, Textiles, Rubbers, Gel, Biopolymers, Polymer composites, Polymer processing, etc.		
35030	Organic functional materials-related	42	Chemistry
	Organic semiconductors, Liquid crystals, Optical materials, Device-related materials, Electrically conductive materials, Hybrid materials, Molecular functional materials, Organic hybrid materials, Materials for energy conversion, etc.		
37010	Bio-related chemistry	42	Chemistry
	Bioorganic chemistry, Bioinorganic chemistry, Biological reaction engineering, Biofunctional chemistry, Biofunctional materials, Biotechnology, etc.		
37020	Chemistry and chemical methodology of biomolecules-related	42	Chemistry
	Natural product chemistry, Biologically active compounds, Molecular mechanism of biological activities, Biofunctional molecules, Combinatorial chemistry, Metabolomic analysis, etc.		
37030	Chemical biology-related	42	Chemistry
	In vivo functional expression, Intracellular chemical reactions, Drug discovery science, Chemical library, Structure-activity relationship, Chemical probes, Biomolecular measurements, Molecular imaging, Proteomics, etc.		
18010	Mechanics of materials and materials-related	51	Engineering sciences
	Structural mechanics, Fatigue, Fracture, Biomaterials, Material design, Material characteristics, Material evaluation, etc.		
18020	Manufacturing and production engineering-related	51	Engineering sciences
	Machine tools, Machining, Non-traditional machining, Ultraprecision machining, Additive manufacturing, Precision metrology, Manufacturing systems, Computer-aided technology, Process planning, etc.		
18030	Design engineering-related	51	Engineering sciences
	Product design, Service design, Design for reliability, Maintainability design, Lifecycle engineering, Reverse engineering, Safety design, Design engineering, etc.		
18040	Machine elements and tribology-related	51	Engineering sciences
	Machine elements, Mechanisms, Tribology, Actuators, Micromachines, etc.		
31010	Nuclear engineering-related	51	Engineering sciences
	Reactor physics and safety design, Thermal-hydraulics and structure, Fuel material, Nuclear chemistry, Nuclear life cycle, Radiation safety, Radiation beam engineering, Plasma engineering for fusion reactor, Equipment and material engineering for fusion reactor, Nuclear social environment, etc.		
31020	Earth resource engineering, Energy sciences-related	51	Engineering sciences
	Earth resource sciences, Resource prospecting, Resource development, Resource cycle, Resource economy, Energy system, Environmental load evaluation, Renewable energy, Natural resource and energy technological policy, etc.		
19010	Fluid engineering-related	51	Engineering sciences
	Fluid machinery, Flow measurement, Computational fluid dynamics, Turbulence, Multiphase flow, Compressible flow, Incompressible flow, etc.		

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19020	Thermal engineering-related	51	Engineering sciences
	Heat transfer, Convection, Combustion, Thermophysical properties, Refrigeration and air-conditioning, Heat engine, Energy conversion, etc.		
20010	Mechanics and mechatronics-related	51	Engineering sciences
	Kinematics, Kinetics, Vibration, Acoustics, Automation, Learning control, Mechatronics, Micro/nano mechatronics, Biomechanics, etc.		
20020	Robotics and intelligent system-related	51	Engineering sciences
	Robotics, Intelligent system, Human mechanical system, Human interface, Planning, Intelligent spatial system, Virtual reality, Augmented reality, etc.		
24010	Aerospace engineering-related	51	Engineering sciences
	Thermo-fluid dynamics, Structural strength, Propulsion, Aerospace craft design, Production engineering, Aircraft system, Specific aircraft, Aerodynamics, Spacecraft system, Space utilization, etc.		
24020	Marine engineering-related	51	Engineering sciences
	Navigation, Structural mechanics, Structural design, Production technology, Marine propulsion, Marine transport, Marine development engineering, Underwater engineering, Polar engineering, Marine environmental technology, etc.		
21010	Power engineering-related	52	Engineering sciences
	Electrical energy-related, Energy conservation, Power system engineering, Electric machinery, Power electronics, Effective utilization of electric energy, Electromagnetic compatibility, etc.		
21020	Communication and network engineering-related	52	Engineering sciences
	Information theory, Nonlinear theory, Signal processing, Wired/wireless communication systems, Modulation/demodulation, Antennas, Networks, Multimedia, Cryptography/security, etc.		
21030	Measurement engineering-related	52	Engineering sciences
	Measurement theory, Measuring instruments, Applied wave metrology, Measurement systems, Signal processing, Sensing devices, etc.		
21040	Control and system engineering-related	52	Engineering sciences
	Control theory, System theory, Control systems, Knowledge-based control systems, System information processing, System control applications, Biosystems engineering, etc.		
21050	Electric and electronic materials-related	52	Engineering sciences
	Semiconductor, Dielectric materials, Magnetic materials, Organic materials, Superconductor, Composite materials, Thin films, Quantum structures, Thick films, Fabrication/characterization methods, etc.		
21060	Electron device and electronic equipment-related	52	Engineering sciences
	Electron devices, Circuit design, Optical devices, Spintronic devices, Millimeter wave/terahertz wave, Applied wave devices, Storage devices, Displays, Micro fabrication process technology, Implementation technology, etc.		
29010	Applied physical properties-related	52	Engineering sciences
	Magnetic materials, Superconductors, Dielectrics, Fine particles, Organic molecules, Liquid crystals, New functional materials, Organic molecules and bioelectronics, Spintronics, etc.		
29020	Thin film/surface and interfacial physical properties-related	52	Engineering sciences
	Thin-film engineering, Thin-film electronics, Oxide electronics, Vacuum, Surface science, Analysis, Measurement, Nanoscopic technology, Surface and interfacial engineering, Advanced equipment, etc.		

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29030	Applied condensed matter physics-related	52	Engineering sciences
	Elementary quantities, Standards, Units, Physical quantity measurements and detection, Energy conversion, etc.		
30010	Crystal engineering-related	52	Engineering sciences
	Metals, Semiconductors, Ceramics, Amorphous materials, Crystal growth, Artificial structures, Crystal characterization, Plasma materials engineering, Plasma processing, Plasma engineering, etc.		
30020	Optical engineering and photon science-related	52	Engineering sciences
	Optical materials, Optical elements, Optical properties, Optical information processing, Laser, Optical sensing, Optical recording, Opto-electronics, Nonlinear optics, Vision optics, etc.		
22010	Civil engineering material, execution and construction management-related	53	Engineering sciences
	Concrete, Steel, Composite material, Wood, Pavement material, Repair and reinforce material, Execution, Maintenance, Construction management, Underground space, etc.		
22020	Structure engineering and earthquake engineering-related	53	Engineering sciences
	Applied mechanics, Structure engineering, Steel structure, Concrete structure, Composite structure, Wind engineering, Earthquake engineering, Aseismatic structure, Earthquake prevention, etc.		
22030	Geotechnical engineering-related	53	Engineering sciences
	Soil mechanics, Foundation engineering, Rock engineering, Engineering Geology, Ground behavior, Soil structure, Geo-disaster prevention, Geoenvironmental engineering, Tunnel engineering, Soil environment, etc.		
22040	Hydroengineering-related	53	Engineering sciences
	Hydraulics, Environmental hydraulics, Hydrology, River engineering, Water resource engineering, Coastal engineering, Port and harbor engineering, Ocean engineering, etc.		
22050	Civil engineering plan and transportation engineering-related	53	Engineering sciences
	Civil engineering plan, Regional urban planning, Spatial planning, Disaster prevention plan, Transportation plan, Transportation engineering, Railway engineering, Surveying and remote sensing, Landscape design, Civil engineering history, etc.		
22060	Environmental systems for civil engineering-related	53	Engineering sciences
	Environment plan, Environmental system, Environment conservation, Water serve and drainage systems, Waste, Water environment, Atmospheric circulation, Noise and vibration, Environment ecology, Environmental monitoring, etc.		
25010	Social systems engineering-related	53	Engineering sciences
	Social systems, Industrial engineering, Operations research, Industrial management, Reliability engineering, Policy science, Regulatory science, Quality control, etc.		
25020	Safety engineering-related	53	Engineering sciences
	Safety engineering, Safety system, Risk engineering, Risk management, Work safety, Product safety, Safety information, Human engineering, Liability engineering, etc.		
25030	Disaster prevention engineering-related	53	Engineering sciences
	Disaster prediction, Hazard map, Building prevention against disaster, Lifeline prevention against disaster, Regional disaster prevention planning, Risk evaluation of disaster, Disaster prevention policy, Disaster resilience, etc.		
23010	Building structures and materials-related	53	Engineering sciences
	Load theory, Structural analysis, Structural design, Structures, Earthquake resistant design, Foundation, Geotechnics, Structural material, Maintenance, Building construction method, etc.		

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23020	Architectural environment and building equipment-related	53	Engineering sciences
	Sound environment, Vibration environment, Light environment, Heat environment, Air environment, Environmental psychology/physiology, Building equipment, Fire engineering, Urban environment, Environment design, etc.		
23030	Architectural planning and city planning-related	53	Engineering sciences
	Planning theory, Design theory, Housing theory, Buildings, Urban/regional planning, Administration, Building economics, Production management, Disaster prevention planning, Landscape, etc.		
23040	Architectural history and design-related	53	Engineering sciences
	Architectural history, Urban history, Architectural theory, Design, Landscape, Preservation, Renovation, etc.		
26010	Metallic material properties-related	54	Engineering sciences
	Electric and magnetic properties, Electronic information properties, Metastable states, Diffusion, Phase transformation, Phase diagram, Crystal lattice defects, Mechanical properties, Thermal and optical properties, Materials computational science, etc.		
26020	Inorganic materials and properties-related	54	Engineering sciences
	Functional ceramics, Functional glasses, Structural ceramics, Carbon-based materials, Crystal structure analysis, Microstructure control, Electric properties, Mechanical properties, Physical and chemical properties, Grain boundary, etc.		
26030	Composite materials and interfaces-related	54	Engineering sciences
	Functional composite materials, Structural composite materials, Biocompatible composite materials, Polymer composite, Surface treatment, Dispersion control, Joining and welding, Adhesive bonding, Interface properties, Gradient function, etc.		
26040	Structural materials and functional materials-related	54	Engineering sciences
	Social infrastructure materials, Toughness, Medical welfare materials, Functional polymer materials, Reliability, Photo-functional materials, Sensor materials, Energy materials, Battery functional materials, Environment functional materials, etc.		
26050	Material processing and microstructure control-related	54	Engineering sciences
	Processing and molding, Thermal treatment, Crystal microstructure control, Laser processing, Precision processing, Polishing, Powder metallurgy, Coatings, Metal plating, Corrosion and protection, etc.		
26060	Metals production and resources production-related	54	Engineering sciences
	Separation and purification, Melting and solidifying, Crystal growth, Casting, Resource security reservation, Scarce resources substitution, Low environment impact, Recycle, Ecomaterials, Energy saving, etc.		
27010	Transport phenomena and unit operations-related	54	Engineering sciences
	Phase equilibrium, Transport properties, Momentum/heat/mass transfer, Fluid-phase unit operation, Adsorption, Membrane separation, Mixing, Powder technology, Crystallization, Film formation, etc.		
27020	Chemical reaction and process system engineering-related	54	Engineering sciences
	Reaction operation, Novel reaction process, Reaction mechanism, Reactor design, Materials synthesis process, Micro-chemical process, Process control, Process system design, Process informatics, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
27030	Catalyst and resource chemical process-related	54	Engineering sciences
	Catalysis, Catalyst preparation, Catalytic function, Energy conversion process, Energy development, Energy-saving technology, Resources effective utilization technology, etc.		
27040	Biofunction and bioprocess engineering-related	54	Engineering sciences
	Biocatalyst engineering, Biofunction engineering, Food engineering, Medicochemical engineering, Bioproduction process, Nano-bioprocess, Bioreactor, Bioseparation, Biosensor, Biorefinery, etc.		
28010	Nanometer-scale chemistry-related	54	Engineering sciences
	Nanostructure creation, Clusters, Nanoparticles, Mesoscopic chemistry, Superstructures, Nanometer-scale surfaces and interfaces, Self-assembly, Nanocarbons, Molecular devices, Nanometer-scale optical devices, etc.		
28020	Nanostructural physics-related	54	Engineering sciences
	Physics in nanoscale materials and structures, Nanoprobes, Quantum effects, Quantum dots, Quantum devices, Electron devices, Spin devices, Nanotribology, Nanocarbon physics, etc.		
28030	Nanomaterials-related	54	Engineering sciences
	Creation of nanomaterials, Analysis of nanomaterials, Nanosurfaces, Nanointerfaces, Functional nanomaterials, Nanostructures, Nanoparticles, Carbon nanomaterials, Nanocrystalline materials, Nanocomposites, Nanodefects, Nanofabrication process, etc.		
28040	Nanobioscience-related	54	Engineering sciences
	Biomolecular devices, Molecular manipulation, Molecular imaging, Nanomeasurements, Nanosynthesis, Single molecule science, Nano-bio interfaces, Biomolecular array, Genome engineering, etc.		
28050	Nano/micro-systems-related	54	Engineering sciences
	MEMS, NEMS, BioMEMS, Nano/micro-fabrication, Nano/micro-optical devices, Nano/micro-chemical systems, Nano/micro-biosystems, Nano/micro-organism systems, Nano/micro-mechanics, Nano/micro-sensors, etc.		
60010	Theory of informatics-related	61	Informatics
	Discrete structure, Mathematical logic, Theory of computation, Mathematical theory of programs, Computational complexity theory, Algorithm theory, Information theory, Coding theory, Theory of cryptography, Learning theory, etc.		
60020	Mathematical informatics-related	61	Informatics
	Optimization theory, Mathematical systems theory, System control theory, System analysis, System methodology, System modeling, System simulation, Combinatorial optimization, Queueing theory, Mathematical finance, etc.		
60030	Statistical science-related	61	Informatics
	Statistics, Data science, Modeling, Statistical inference, Multivariate analysis, Time series analysis, Statistical quality control, Applied statistics, etc.		
60040	Computer system-related	61	Informatics
	Computer architecture, Circuit and system, LSI design, LSI testing, Reconfigurable system, Dependable architecture, Low power technology, Hardware/software codesign, Embedded system, etc.		
60050	Software-related	61	Informatics
	Programming language, Programming methodology, Operating system, Parallel and distributed computing, Software engineering, Virtualization technology, Cloud computing, Software dependability, Software security, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
60060	Information network-related	61	Informatics
	Network architecture, Network protocol, Internet, Mobile network, Pervasive computing, Sensor network, IoT, Traffic engineering, Network management, Service platform technology, etc.		
60070	Information security-related	61	Informatics
	Cryptography, Tamper resistance technology, Authentication, Biometrics, Access control, Malware countermeasure, Countermeasures against denial-of-service attacks, Privacy protection, Digital forensics, Security evaluation and authorization, etc.		
60080	Database-related	61	Informatics
	Data model, Database system, Multimedia database, Information retrieval, Content management, Metadata, Big data, Geographic information system, etc.		
60090	High performance computing-related	61	Informatics
	Parallel processing, Distributed processing, Cloud computing, Numerical analysis, Visualization, Computer graphics, High performance computing application, etc.		
60100	Computational science-related	61	Informatics
	Mathematical engineering, Computational mechanics, Numerical simulation, Multi-scale modeling, Large-scale computing, Massively parallel computing, Numerical computing methods, Advanced algorithms, etc.		
62010	Life, health and medical informatics-related	61	Informatics
	Bioinformatics, Life informatics, Biological information, Neuroinformatics, Neural information processing, Molecular computing, DNA computing, Medical information, Health information, Medical image, etc.		
62020	Web informatics and service informatics-related	61	Informatics
	Web system, Social web, Semantic web, Web mining, Social network analysis, Service engineering, Educational service, Medical service, Welfare service, Social service, Information culture, etc.		
62030	Learning support system-related	61	Informatics
	Media literacy, Learning media, Social media, Learning content, Learning management, Learning support, Remote learning, e-Learning, etc.		
62040	Entertainment and game informatics-related	61	Informatics
	Music information processing, 3D content, Animation, Game programming, Network entertainment, Media art, Digital museum, Experience design, etc.		
61010	Perceptual information processing-related	62	Informatics
	Pattern recognition, Image processing, Computer vision, Visual media processing, Acoustic media processing, Media editing, Media database, Sensing, Sensor fusion, etc.		
61020	Human interface and interaction-related	62	Informatics
	Human interface, Multi-modal interface, Human-computer interaction, Computer supported cooperative work, Virtual reality, Augmented reality, Realistic communication, Wearable device, Usability, Ergonomics, etc.		
61030	Intelligent informatics-related	62	Informatics
	Search, Inference, Machine learning, Knowledge acquisition, Intelligent system, Intelligent information processing, Natural language processing, Data mining, Ontology, Agent system, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
61040	Soft computing-related	62	Informatics
	Neural network, Evolutionary computation, Fuzzy theory, Chaos, Complex systems, Probabilistic information processing, etc.		
61050	Intelligent robotics-related	62	Informatics
	Intelligent robot, Behavior and environment recognition, Planning, Sensory behavior system, Autonomous system, Digital human, Real world information processing, Physical agents, Intelligent space, etc.		
61060	Kansei informatics-related	62	Informatics
	Kansei design, Kansei cognitive science, Kansei psychology, Kansei robotics, Kansei measurement evaluation, Kansei interface, Kansei physiology, Kansei material science, Kansei pedagogy, Kansei brain science, etc.		
43010	Molecular biology-related	71	Biological sciences
	Chromosome function, Chromatin, Epigenetics, Genome maintenance, Genome transmission, Chromosome re-organization, Gene expression, Non-coding RNA, Regulation of protein function, Molecular genetics, etc.		
43020	Structural biochemistry-related	71	Biological sciences
	Proteins, Nucleic acids, Lipids, Carbohydrates, Biological membrane, Molecular recognition, Denaturation, Three-dimensional structural analysis, Three-dimensional structural prediction, Molecular dynamics, etc.		
43030	Functional biochemistry-related	71	Biological sciences
	Enzymes, Sugar chain, Bioenergy conversion, Biological trace elements, Physiologically active substances, Cell signaling, Membrane transport, Proteolysis, Molecular recognition, etc.		
43040	Biophysics-related	71	Biological sciences
	Structure biology, Physical property of biomolecules, Biomembrane, Photobiology, Molecular motor, Biometrics, Bioimaging, Systems biology, Synthetic biology, Theoretical biology, etc.		
43050	Genome biology-related	71	Biological sciences
	Genome organization, Genome function, Genome diversity, Molecular evolution of genome, Genome repair/maintenance, Trans-omics, Epigenome, Gene resource, Genome dynamics, etc.		
43060	System genome science-related	71	Biological sciences
	Network analyses, Synthetic biology, Biological databases, Bioinformatics, Genome analysis technology, Genome biotechnology, etc.		
44010	Cell biology-related	72	Biological sciences
	Cytoskeleton, Proteolysis, Organelle dynamics, Nuclear structure and function, Extracellular matrix, Signal transduction, Cell cycle, Cell motility, Cell-cell interaction, Cellular genetics, etc.		
44020	Developmental biology-related	72	Biological sciences
	Cell differentiation, Stem cells, Regeneration, Germ layer formation, Morphogenesis, Organogenesis, Fertilization, Germ cells, Regulation of gene expression, Developmental genetics, Evolution and development, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
44030	Plant molecular biology and physiology-related	72	Biological sciences
	Photosynthesis, Growth physiology, Plant development, Organelle, Cell wall, Responses to environment, Plant-microbe interaction, Metabolism, Plant molecular function, etc.		
44040	Morphology and anatomical structure-related	72	Biological sciences
	Animal and plant morphology, Micro-organismal morphology, Molecular morphology, Microstructure, Tissue organization, Morphogenesis, Comparative endocrinology, Microscopic technology, Imaging, etc.		
44050	Animal physiological chemistry, physiology and behavioral biology-related	72	Biological sciences
	Metabolic physiology, Neurophysiology, Neuroethology, Behavioral physiology, Animal physiological chemistry, Chronobiology, Comparative physiology, etc.		
45010	Genetics-related	73	Biological sciences
	Genetic mechanism, Molecular genetics, Cellular genetics, Population genetics, Evolutionary genetics, Developmental genetics, Behavioral genetics, Genetic diversity, etc.		
45020	Evolutionary biology-related	73	Biological sciences
	General evolutionary biology, Molecular evolution, Phenotypic evolution, Evolution of developmental traits, Evolution of ecological traits, Evolution of behaviors, Experimental evolution, Evolutionary theory, Evolution of symbiosis, Phylogenetics, Speciation, etc.		
45030	Biodiversity and systematics-related	73	Biological sciences
	Taxonomic characters, Taxon, Classification system, Biodiversity, Phylogenetics, Evolution, Natural history, Speciation, etc.		
45040	Ecology and environment-related	73	Biological sciences
	Chemical ecology, Molecular ecology, Physiological ecology, Evolutionary ecology, Behavioral ecology, Population ecology, Community ecology, Ecosystem, Conservation ecology, Natural environment, etc.		
45050	Physical anthropology-related	73	Biological sciences
	Molecular anthropology and genetics, Morphology and function, Bioarchaeology, Behavior and cognition, Ecology, Primates, Evolution, Development and ontogeny, Variation and diversity, etc.		
45060	Applied anthropology-related	73	Biological sciences
	Physiological anthropology, Ergonomics, Forensic anthropology, Medical anthropology, Physiological polymorphisms, Environmental adaptability, Somatic and physiological function, Anthropometry and bioengineering, etc.		
46010	Neuroscience-general-related	74	Biological sciences
	Neurochemistry, Neuron, Glia, Genome, Epigenetics, Neurobiology, Information processing, Synapse, Neurogenesis, etc.		
46020	Anatomy and histopathology of nervous system-related	74	Biological sciences
	Neural development, Anatomy of nervous system, Neural network structure, Neuropathology, etc.		
46030	Function of nervous system-related	74	Biological sciences
	Neurophysiology, Neuropharmacology, Neurotransmission, Neuroinformatics, Behavioral neuroscience, Neural system physiology, Cerebral blood flow, Autonomic nervous system, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
38010	Plant nutrition and soil science-related	81	Agriculture/Environmental sciences
	Plant metabolism and physiology, Nutritional elements in plants, Soil classification, Soil physical chemistry, Soil organisms, etc.		
38020	Applied microbiology-related	81	Agriculture/Environmental sciences
	Microbial genetics/breeding, Microbial function, Microbial metabolism and physiology, Microbial applications, Control of microbes, Microbial ecology, Production of useful materials, etc.		
38030	Applied biochemistry-related	81	Agriculture/Environmental sciences
	Cellular biochemistry, Applied biochemistry, Structural biology, Regulation of bioactivity, Metabolism and physiology, Cellular function, Molecular function, Production of useful materials, etc.		
38040	Bioorganic chemistry-related	81	Agriculture/Environmental sciences
	Bioactive substances, Signal molecules, Natural products chemistry, Biosynthesis, Structure-activity relationship, Synthetic organic chemistry, Chemical biology, etc.		
38050	Food sciences-related	81	Agriculture/Environmental sciences
	Food function, Food chemistry, Nutritional chemistry, Food analysis, Food engineering, Food safety, Functional food, Nutritional epidemiology, Clinical nutrition, etc.		
38060	Applied molecular and cellular biology-related	81	Agriculture/Environmental sciences
	Molecular cell biology, Cellular bioengineering, Molecular engineering, Gene expression control, Cell-cell/intermolecular interactions, Cellular function, Production of useful materials, etc.		
39010	Science in plant genetics and breeding-related	82	Agriculture/Environmental sciences
	Genetic resources, Breeding theories, Genomic breeding, Plants with novel traits, Quality components, Stress tolerance, Yielding ability, Reproduction and multiplication, Growth physiology, Development, etc.		
39020	Crop production science-related	82	Agriculture/Environmental sciences
	Field crops, Crop yield, Crop product quality, Crop morphology, Growth prediction, Crop physiology, Field management, Low-cost cultivation techniques, Environmentally friendly agriculture, Field ecosystem, etc.		
39030	Horticultural science-related	82	Agriculture/Environmental sciences
	Plant growth, flowering, and fruit development, Nursery plant propagation and production, Crop production systems, Cultivation techniques, Protected horticulture, Controlled environment systems, Breeding and development of new cultivars, Quality of horticultural products, Postharvest physiology and management, Socio-horticulture, etc.		
39040	Plant protection science-related	82	Agriculture/Environmental sciences
	Plant pathology, Clinical plant science, Agricultural insect pest, Natural enemy, Weed, Agricultural chemicals, Integrated pest management, etc.		
39050	Insect science-related	82	Agriculture/Environmental sciences
	Sericulture insect technology, Insect genetics, Insect pathology, Insect physiology and biochemistry, Insect ecology, Chemical ecology, Systematics, Symbiosis and parasitism, Social insects, Medical entomology, etc.		
39060	Conservation of biological resources-related	82	Agriculture/Environmental sciences
	Conservation biology, Biodiversity conservation, Conservation of phylogenetic diversity, Conservation of genetic resources, Ecosystem conservation, Conservation of endemic species, Conservation of microorganisms, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
39070	Landscape science-related	82	Agriculture/Environmental sciences
	Landscape architecture, Parks and open space planning, Landscape planning, Cultural landscape, Nature conservation, Landscape ecology, Parks and open space management, Parks, Environmental greening, Participatory community design, etc.		
41010	Agricultural and food economics-related	82	Agriculture/Environmental sciences
	Food economy, Agricultural production economy, Policy for agriculture, forestry and fishery, Food system, Food marketing, International agricultural development, Trade of agricultural commodities and livestock products, Rural resources and environment, etc.		
41020	Rural sociology and agricultural structure-related	82	Agriculture/Environmental sciences
	Farm organization, Farm management, Agricultural structure, Agricultural market, Agricultural history, Rural society, Rural life, Agricultural cooperative, etc.		
41030	Rural environmental engineering and planning-related	82	Agriculture/Environmental sciences
	Irrigation and drainage, Reclamation and conservation of agricultural land, Rural planning, Rural environment, Circulation of resources and energy, Disaster prevention in rural area, Stock management of agricultural infrastructures, Hydrodynamics and hydrology, Soil physics, Design and construction materials, etc.		
41040	Agricultural environmental engineering and agricultural information engineering-related	82	Agriculture/Environmental sciences
	Agricultural production facilities, Bioproduction machinery, Environmental control, Agricultural meteorology and micrometeorology, Agricultural information, Greenhouse horticulture, Plant factory, Postharvest and supply chain, Nondestructive measurement, Remote sensing and geographic information system, etc.		
41050	Environmental agriculture-related	82	Agriculture/Environmental sciences
	Biomass, Environmental manipulation, Biodiversity, Environmental analysis, Ecosystem services, Resources circulation system, Low-carbon societies, Life-cycle assessment, Environmental friendly agriculture, Watershed management, etc.		
40010	Forest science-related	83	Agriculture/Environmental sciences
	Forest ecology, Forest biodiversity, Forest genetics and breeding, Silviculture, Forest protection, Forest environments, Erosion control, Forest planning, Forest policy, etc.		
40020	Wood science-related	83	Agriculture/Environmental sciences
	Wood structure, Wood property, Lignocellulose, Trace element, Fungus, Wood processing, Biomass-refinery, Wood based material, Wooden building, Forest products education, etc.		
40030	Aquatic bioproduction science-related	83	Agriculture/Environmental sciences
	Aquatic environment, Fisheries, Aquatic resource management, Aquatic organisms, Aquatic ecosystem, Aquaculture, Fisheries engineering, Fishing community/fisheries policy, Fisheries economics/management/marketing, Fisheries education, etc.		
40040	Aquatic life science-related	83	Agriculture/Environmental sciences
	Aquatic nutrition, Aquatic pathology, Aquatic genetics/heredity/breeding, Aquatic physiology, Utilization of aquatic organisms and biomass, Aquatic biological chemistry, Aquatic biotechnology, Aquatic food sciences, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
42010	Animal production science-related	84	Agriculture/Environmental sciences
	Breeding/genetics, Reproduction, Nutrition/feeding, Anatomy/physiology, Product, Environment, Behavior, Therapy, Grassland, Grazing, etc.		
42020	Veterinary medical science-related	84	Agriculture/Environmental sciences
	Basic veterinary science, Pathological veterinary science, Applied veterinary science, Clinical veterinary science, Animal nursing, Animal welfare, Wildlife, etc.		
42030	Animal life science-related	84	Agriculture/Environmental sciences
	Homeostasis, Cellular function, Biological defense, Integrated genetics, Development/differentiation, Biotechnology, etc.		
42040	Laboratory animal science-related	84	Agriculture/Environmental sciences
	Genetic engineering, Developmental engineering, Animal models of disease, Facility management, Laboratory animal welfare, Laboratory animal-related technology, Bioresource, etc.		
63010	Environmental dynamic analysis-related	85	Agriculture/Environmental sciences
	Global warming, Environmental change, Water and material cycle, Polar regions, Chemical oceanography, Biological oceanography, Environmental measurements, Environmental model, Environmental information, Remote sensing, etc.		
63020	Radiation influence-related	85	Agriculture/Environmental sciences
	Radiation, Measurement, Control, Repair, Biological effects, Risk, etc.		
63030	Chemical substance influence on environment-related	85	Agriculture/Environmental sciences
	Toxicology, Toxic substance to human, Trace chemical substance, Endocrine disruptor, Repair, etc.		
63040	Environmental impact assessment-related	85	Agriculture/Environmental sciences
	Atmosphere, Hydrosphere, Terrestrial impact, Impact assessment on human health, Social and economic impacts, Impact assessment on the future generation, Environmental impact assessment, Assessment methods, Monitoring, Simulation, etc.		
64010	Environmental load and risk assessment-related	85	Agriculture/Environmental sciences
	Environmental analysis, Environmental load analysis, Environmental monitoring, Dynamics of environmental pollution, Environmental modelling, Evaluation of contamination, Exposure assessment, Toxicity evaluation, Environmental assessment, Chemical substance management, etc.		
64020	Environmental load reduction and remediation-related	85	Agriculture/Environmental sciences
	Removal of contamination, Treatment of waste material, Control of contamination source, Disposal of waste material, Environmental load reduction, Remediation measure of contamination, Noise and vibration reduction, Countermeasure of ground settlement, Bioremediation, Radioactive decontamination, etc.		
64030	Environmental materials and recycle technology-related	85	Agriculture/Environmental sciences
	Recycle materials, Valuable materials recovery, Separation, refining and purification, Environment-conscious design, Recycle chemistry, Green production, Zero emission, Resource circulation, Renewable energy, Biomass utilization, etc.		
64040	Social-ecological systems-related	85	Agriculture/Environmental sciences
	Biodiversity, Conservation biology, Ecosystem services, Natural capital, Impact analysis on ecosystem, Ecosystem management, Ecosystem restoration, Ecological engineering, Regional environmental planning, Impact of climate change, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
64050	Sound material-cycle social systems-related	85	Agriculture/Environmental sciences
	Sound material-cycle systems, Material and energy budget analysis, Low carbon society, Unused energy, Regional revitalization, Water use system, Industrial symbiosis, Life cycle assessment (LCA), Integrated environmental management, 3R (reduction, reuse, recycle) social systems, etc.		
64060	Environmental policy and social systems-related	85	Agriculture/Environmental sciences
	Environmental philosophy and ethics, Environmental laws, Environmental economics, Environmental information, Environmental education, Environmental social activities, Environmental management and governance, Consensus forming, Environmental safety and security, Social and public system, Sustainable development, etc.		
47010	Pharmaceutical chemistry and drug development sciences-related	91	Medicine dentistry and pharmacy
	Inorganic chemistry, Organic chemistry, Medicinal chemistry, Medicinal molecular design, Drug discovery, Bio-related materials, Chemical biology, etc.		
47020	Pharmaceutical analytical chemistry and physicochemistry-related	91	Medicine dentistry and pharmacy
	Environmental analysis, Bioanalysis, Physicochemistry, Biophysics, Structural biology, Radiochemistry, Bioimaging, Drug formulation design, Computer science, Information science, etc.		
47030	Pharmaceutical hygiene and biochemistry-related	91	Medicine dentistry and pharmacy
	Environmental hygiene, Healthful nutrition, Disease prevention, Toxicology, Drug metabolism, Host defense, Molecular biology, Cell biology, Biochemistry, etc.		
47040	Pharmacology-related(A)	91	Medicine dentistry and pharmacy
	Pharmacology, Pharmacogenomics, Applied pharmacology, Signal transduction, Drug interactions, Drug response, Pharmacotherapy, Pharmacotoxicology, etc.		
47050	Environmental and natural pharmaceutical resources-related	91	Medicine dentistry and pharmacy
	Environmental resource science, Natural products chemistry, Bioactive natural compounds, Medicinal resources, Medicinal foods, Pharmaceutical microbiology, etc.		
47060	Clinical pharmacy-related	91	Medicine dentistry and pharmacy
	Pharmacokinetics, Medical informatics, Social pharmacy, Clinical pharmacy, Pharmaceutics, Regulatory science, Education for the pharmacist, etc.		
48010	Anatomy-related	92	Medicine dentistry and pharmacy
	Macroscopic anatomy, Histology, Embryology, etc.		
48020	Physiology-related	92	Medicine dentistry and pharmacy
	General physiology, Pathophysiology, Comparative physiology, Environmental physiology, etc.		
48030	Pharmacology-related(B)	92	Medicine dentistry and pharmacy
	Genomic pharmacology, Molecular and cellular pharmacology, Pathological pharmacology, Behavioral pharmacology, Pharmacology for drug discovery, Clinical pharmacology, etc.		
48040	Medical biochemistry-related	92	Medicine dentistry and pharmacy
	Biofunctional molecular and medical biochemistry, Genome medical sciences, Human genetics, Disease model, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
49010	Pathological biochemistry-related	93	Medicine dentistry and pharmacy
	Molecular pathology, Metabolic disorders, Molecular diagnosis, etc.		
49020	Human pathology-related	93	Medicine dentistry and pharmacy
	Molecular pathology, Cyto- and histo-pathology, Diagnostic pathology, etc.		
49030	Experimental pathology-related	93	Medicine dentistry and pharmacy
	Disease models, Pathological regulation, Tissue regeneration, etc.		
49040	Parasitology-related	93	Medicine dentistry and pharmacy
	Parasite, Vector organism, Parasite pathogenicity, Epidemiology of parasites, Control of parasite infections, etc.		
49050	Bacteriology-related	93	Medicine dentistry and pharmacy
	Bacterium, Fungus, Antimicrobial resistance, Bacterial pathogenicity, Epidemiology of bacteria, Control of bacterial infections, etc.		
49060	Virology-related	93	Medicine dentistry and pharmacy
	Virus, Prion, Viral pathogenicity, Epidemiology of viruses, Control of viral infections, etc.		
49070	Immunology-related	93	Medicine dentistry and pharmacy
	Immune system, Immune response, Inflammation, Immune-related disorder, Immune regulation, etc.		
50010	Tumor biology-related	94	Medicine dentistry and pharmacy
	Cancer and gene, Tumor development, Invasion, Metastasis, Cancer microenvironment, Cancer and signal transduction, Characteristics of cancer cells, etc.		
50020	Tumor diagnostics and therapeutics-related	94	Medicine dentistry and pharmacy
	Genome analysis, Diagnostic markers, Molecule imaging, Chemotherapy, Nucleic acid therapy, Gene therapy, Immunotherapy, Molecular targeted therapy, Physical therapy, Radiation therapy, etc.		
51010	Basic brain sciences-related	94	Medicine dentistry and pharmacy
	Brain-machine interface, Model animal, Computational brain science, Brain information decoding, Control technologies, Brain imaging, Brain biometrics, etc.		
51020	Cognitive and brain science-related	94	Medicine dentistry and pharmacy
	Social behavior, Communication, Emotion, Decision making, Consciousness, Learning, Neuroeconomics, Neuropsychology, etc.		
51030	Pathophysiologic neuroscience-related	94	Medicine dentistry and pharmacy
	Clinical neuroscience, Dolorology, Sensory impairment, Movement disorder, Neurological disorder, Neurogenesis, Neuroimmunology, Cellular degeneration, Disease model, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
52010	General internal medicine-related	95	Medicine dentistry and pharmacy
	Laboratory medicine, General practice, Geriatrics, Psychosomatic internal medicine, Oriental medicine, Palliative medicine, etc.		
52020	Neurology-related	95	Medicine dentistry and pharmacy
	Neurology, Neurofunctional imaging, etc.		
52030	Psychiatry-related	95	Medicine dentistry and pharmacy
	Clinical psychiatry, Biological psychiatry, Forensic mental health, etc.		
52040	Radiological sciences-related	95	Medicine dentistry and pharmacy
	Diagnostic radiology, Therapeutic radiology, Radiation biology, Radiological technology, etc.		
52050	Embryonic medicine and pediatrics-related	95	Medicine dentistry and pharmacy
	Fetal medicine, Neonatal medicine, Pediatrics, etc.		
53010	Gastroenterology-related	95	Medicine dentistry and pharmacy
	Upper digestive tract, Lower digestive tract, Liver, Biliary tract, Pancreas, etc.		
53020	Cardiology-related	95	Medicine dentistry and pharmacy
	Ischemic heart disease, Valvular heart disease, Arrhythmia, Cardiomyopathy, Heart failure, Peripheral arterial disease, Arteriosclerosis, Hypertension, etc.		
53030	Respiratory medicine-related	95	Medicine dentistry and pharmacy
	Respiratory medicine, Asthma, Diffusive lung disease, COPD, Lung cancer, Pulmonary hypertension, etc.		
53040	Nephrology-related	95	Medicine dentistry and pharmacy
	Acute renal failure, Chronic kidney disease, Diabetic nephropathy, Hypertension, Aqueous electrolyte metabolism, Artificial dialysis, etc.		
53050	Dermatology-related	95	Medicine dentistry and pharmacy
	Dermatology, Cutaneous immune disease, Cutaneous infection, Cutaneous tumor, etc.		
54010	Hematology and medical oncology-related	95	Medicine dentistry and pharmacy
	Hematological oncology, Hematological immunology, Anemia, Thrombosis and hemostasis, Chemotherapy, etc.		
54020	Connective tissue disease and allergy-related	95	Medicine dentistry and pharmacy
	Connective tissue disease, Allergy, Clinical immunology, Inflammation, etc.		
54030	Infectious disease medicine-related	95	Medicine dentistry and pharmacy
	Infection diagnostics, Infection therapeutics, Host defense, International infection science, etc.		
54040	Metabolism and endocrinology-related	95	Medicine dentistry and pharmacy
	Energy balance, Glucose metabolism, Lipid metabolism, Purine metabolism, Bone metabolism, Electrolyte balance, Endocrinology, Neuroendocrinology, Reproductive endocrinology, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
55010	General surgery and pediatric surgery-related	96	Medicine dentistry and pharmacy
	Surgical basic principles, Breast surgery, Endocrine surgery, Pediatric surgery, Transplant surgery, Artificial organs science, Regeneration, Operation support, etc.		
55020	Digestive surgery-related	96	Medicine dentistry and pharmacy
	Upper gastrointestinal surgery, Lower gastrointestinal surgery, Hepatic surgery, Biliary surgery, Pancreatic surgery, etc.		
55030	Cardiovascular surgery-related	96	Medicine dentistry and pharmacy
	Coronary artery surgery, Heart valve surgery, Surgery for myocardial disease, Aortic surgery, Vascular surgery, Congenital heart surgery, etc.		
55040	Respiratory surgery-related	96	Medicine dentistry and pharmacy
	Lung surgery, Mediastinal surgery, Chest wall surgery, Respiratory tract surgery, etc.		
55050	Anesthesiology-related	96	Medicine dentistry and pharmacy
	Anesthesiology, Perioperative management, Pain management, Resuscitology, Palliative medicine, etc.		
55060	Emergency medicine-related	96	Medicine dentistry and pharmacy
	Intensive care medicine, Emergency resuscitation science, Trauma surgery, Disaster medicine, Disaster medical care, etc.		
56010	Neurosurgery-related	96	Medicine dentistry and pharmacy
	Neurosurgery, Spine and spinal cord diseases, etc.		
56020	Orthopedics-related	96	Medicine dentistry and pharmacy
	Orthopedics, Rehabilitation medicine, Sports medicine, etc.		
56030	Urology-related	96	Medicine dentistry and pharmacy
	Urology, Male genitalia science, etc.		
56040	Obstetrics and gynecology-related	96	Medicine dentistry and pharmacy
	Obstetrics, Reproductive endocrinology, Gynecologic oncology, Female health care medicine, etc.		
56050	Otorhinolaryngology-related	96	Medicine dentistry and pharmacy
	Otorhinolaryngology, Head and neck surgery, etc.		
56060	Ophthalmology-related	96	Medicine dentistry and pharmacy
	Ophthalmology, Ophthalmological optics, etc.		
56070	Plastic and reconstructive surgery-related	96	Medicine dentistry and pharmacy
	Plastic surgery, Reconstructive surgery, Aesthetic plastic surgery, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
57010	Oral biological science-related	97	Medicine dentistry and pharmacy
	Oral anatomy, Oral histology and embryology, Oral physiology, Oral biochemistry, Pharmacology for hard tissues, etc.		
57020	Oral pathobiological science-related	97	Medicine dentistry and pharmacy
	Oral infectious diseases, Oral pathology, Oral experimental oncology, Immunity and inflammation, Laboratory medicine, etc.		
57030	Conservative dentistry-related	97	Medicine dentistry and pharmacy
	Operative dentistry, Endodontology, Periodontology, etc.		
57040	Regenerative dentistry and dental engineering-related	97	Medicine dentistry and pharmacy
	Regenerative dentistry, Biomaterial science, Dental materials science, Oral and maxillofacial prosthetics, Oral implantology, etc.		
57050	Prosthodontics-related	97	Medicine dentistry and pharmacy
	Prosthodontics, Oral rehabilitation, Gerodontology, etc.		
57060	Surgical dentistry-related	97	Medicine dentistry and pharmacy
	Oral and maxillofacial surgery, Oral maxillofacial reconstructive surgery, Dental anesthesiology, Psychosomatic medicine dentistry, Dental radiology, etc.		
57070	Developmental dentistry-related	97	Medicine dentistry and pharmacy
	Orthodontics, Pediatric dentistry, etc.		
57080	Social dentistry-related	97	Medicine dentistry and pharmacy
	Dental hygiene, Preventive dentistry, Oral health administration and management, Dental education, Forensic odontology, etc.		
58010	Medical management and medical sociology-related	98	Medicine dentistry and pharmacy
	Medical management, Medical social science, Ethics for medical science, Ethics for medical care, Biomedical education, History of medical science, Health policy and economics, Clinical trials, Health and medical services administration, Disaster medical science, etc.		
58020	Hygiene and public health-related: including laboratory approach	98	Medicine dentistry and pharmacy
	Hygiene, Public health, Epidemiology, Global health, etc.		
58030	Hygiene and public health-related: excluding laboratory approach	98	Medicine dentistry and pharmacy
	Hygiene, Public health, Epidemiology, Global health, etc.		
58040	Forensics medicine-related	98	Medicine dentistry and pharmacy
	Forensic medicine, Forensic pathology, Forensic toxicology, Forensic genetics, Suicide, Abuse, Clinical forensic medicine, Sudden death, etc.		
58050	Fundamental of nursing-related	98	Medicine dentistry and pharmacy
	Fundamental of nursing, Nursing education, Nursing administration, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
58060	Clinical nursing-related	98	Medicine dentistry and pharmacy
	Critical care and emergency nursing, Perioperative nursing, Nursing of chronic illness, Oncology nursing, Psychiatric nursing, Palliative care nursing, etc.		
58070	Lifelong developmental nursing-related	98	Medicine dentistry and pharmacy
	Women's health nursing, Maternal nursing, Midwifery, Family health nursing, Child health nursing, School nursing, etc.		
58080	Gerontological nursing and community health nursing-related	98	Medicine dentistry and pharmacy
	Gerontological nursing, Community health nursing, Public health nursing, Disaster nursing, etc.		
59010	Rehabilitation science-related	98	Medicine dentistry and pharmacy
	Rehabilitation medicine, Rehabilitation nursing, Rehabilitation medical care, Physiotherapeutics, Occupational therapy, Assistive technology, Speech and language therapy, etc.		
59020	Sports sciences-related	98	Medicine dentistry and pharmacy
	Sports physiology, Sports biochemistry, Sports medicine, Sports sociology, Sports management, Sports psychology, Sports education, Training science, Sports biomechanics, Adapted sports science, Doping, etc.		
59030	Physical education, and physical and health education-related	98	Medicine dentistry and pharmacy
	Growth developmental science, Physical and health education, Physical education in school, Educational physiology, Physical systems science, Higher brain function science, Martial arts theory, Outdoor education, etc.		
59040	Nutrition science and health science-related	98	Medicine dentistry and pharmacy
	Nutritional physiology, Nutritional biochemistry, Nutritional education, Clinical nutrition, Functional food, Lifestyle-related disease, Health promotion, Aging, etc.		
90010	Design-related	11,53, 62	Humanities, Engineering sciences, Informatics
	Information design, Environmental design, Industrial design, Spatial design, Design history, Theory of design, Design standard, Design support, Evaluation of design, Design education, etc.		
90020	Library and information science, humanistic and social informatics-related	12, 61	Humanities, Informatics
	Library science, Information services, Information organizing, Information retrieval, Information media, Bibliometrics, Information resources, Information ethics, Digital humanities, Social Informatics, Digital archives, etc.		
90030	Cognitive science-related	26, 62	Social sciences, Informatics
	Cognitive science in general, Cognitive models, Kansei, Human factors, Cognitive and brain science, Comparative cognition, Cognitive linguistics, Cognitive engineering, etc.		
90110	Biomedical engineering-related	90	Engineering sciences, Medicine dentistry and pharmacy
	Medical imaging, Medical modeling, Biological simulation, Biometrics, Artificial organs, Tissue engineering, Biophysical properties, Biocontrol, Biomechanics, Nanobio systems, etc.		
90120	Biomaterials-related	90	Engineering sciences, Medicine dentistry and pharmacy
	Biofunctional materials, Tissue engineering materials, Biocompatible materials, Nanobio materials, Drug delivery systems, Stimuli-sensitive materials, Genetic engineering material, etc.		
90130	Medical systems-related	90	Engineering sciences, Medicine dentistry and pharmacy
	Medical ultrasound system, Diagnostic imaging system, Laboratory diagnosis systems, Minimally invasive treatment systems, Remote diagnosis and treatment systems, Organ preservation systems, Medical information systems, Computer-assisted surgery, Medical robot, etc.		

Keyword list

Research content (Basic Section)	Examples of related research content	Research content(Medium-sized Sections) and Research field corresponding Research content(Basic Sections)	
		Research content (Medium-sized Section)	Research field
90140	Medical technology assessment-related	90	Engineering sciences, Medicine dentistry and
	Regulatory science, Safety evaluation, Clinical study, Medical technology ethics, Medical devices, etc.		
90150	Medical assistive technology-related	90	Engineering sciences, Medicine dentistry and pharmacy
	Healthcare and rehabilitation engineering, Life assist technology, Care support technology, Accessibility design, Universal design, Rehabilitation and nursing robot, Assist device for artificial internal organ, Rehabilitation devices, Nursing science and engineering, etc.		