## The Fields of Science and Technology Classification

for

#### **Fundamental Research State Grants**

(Elaborated in compliance with European Research Council)

## 1. Physical Sciences and Engineering

### 1.1 Mathematics

Pure and applied mathematics, mathematical foundations of computer science, mathematical physics and statistics

- 1.1.1 Logic and foundations of mathematics
- 1.1.2 Algebra
- 1.1.3 Number theory
- 1.1.4 Algebraic and complex geometry
- 1.1.5 Lie groups, Lie algebras
- 1.1.6 Geometry and global analysis
- 1.1.7 Topology
- 1.1.8 Mathematical analysis
- 1.1.9 Operator algebras and functional analysis
- 1.1.10 ODE and dynamical systems
- 1.1.11 Theoretical aspects of partial differential equations
- 1.1.12 Mathematical physics
- 1.1.13 Probability
- 1.1.14 Statistics
- 1.1.15 Discrete mathematics and combinatorics
- 1.1.16 Mathematical aspects of computer science
- 1.1.17 Numerical analysis
- 1.1.18 Scientific computing and data processing
- 1.1.19 Control theory and optimisation
- 1.1.20 Application of mathematics in sciences
- 1.1.21 Application of mathematics in industry and society

### 1.2 Fundamental Constituents of Matter

Particle, nuclear, plasma, atomic, molecular, gas, and optical physics

- 1.2.1 Theory of fundamental interactions
- 1.2.2 Phenomenology of fundamental interactions
- 1.2.3 Experimental particle physics with accelerators
- 1.2.4 Experimental particle physics without accelerators
- 1.2.5 Classical and quantum physics of gravitational interactions
- 1.2.6 Nuclear, hadron and heavy ion physics

1.2.7	Nuclear and particle astrophysics
1.2.8	Gas and plasma physics
1.2.9	Electromagnetism
1.2.10	Atomic, molecular physics
1.2.11	Ultra-cold atoms and molecules
1.2.12	Optics, non-linear optics and nano-optics
1.2.13	Quantum optics and quantum information
1.2.14	Lasers, ultra-short lasers and laser physics
1.2.15	Thermodynamics
1 2 16	Non-linear physics

- Non-linear physics
- 1.2.17 Metrology and measurement
- Equilibrium and non-equilibrium statistical mechanics: steady states and dynamic 1.2.18

### 1.3 Condensed Matter Physics

Structure, electronic properties, fluids, nanosciences

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1.3.1	Structure of solids, material growth and characterisation
1.3.2	Mechanical and acoustical properties of condensed matter, lattice dynamics
1.3.3	Transport properties of condensed matter
1.3.4	Electronic properties of materials, surfaces, interfaces, nanostructures
1.3.5	Physical properties of semiconductors and insulators
1.3.6	Macroscopic quantum phenomena, e.g. superconductivity, superfluidity, quantum Hall effect
1.3.7	Spintronics
1.3.8	Magnetism and strongly correlated systems
130	Condensed matter - beam interactions (photons electrons etc.)

- Condensed matter beam interactions (photons, electrons, etc.) 1.3.9
- 1.3.10 Nanophysics, e.g. nanoelectronics, nanophotonics, nanomagne-sm, nanoelectromechanics
- 1.3.11 Mesoscopic quantum physics and solid-state quantum technologies
- 1.3.12 Molecular electronics
- 1.3.13 Structure and dynamics of disordered systems, e.g. soft matter (gels, colloids, liquid crystals), granular matter, liquids, glasses, defects
- 1.3.14 Fluid dynamics (physics)
- 1.3.15 Statistical physics: phase transitions, condensed matter systems, models of complex systems, interdisciplinary applications
- 1.3.16 Physics of biological systems

### 1.4 Physical and Analytical Chemical Sciences

Analytical chemistry, chemical theory, physical chemistry/chemical physics

- 1.4.1 Physical chemistry
- 1.4.2 Spectroscopic and spectrometric techniques
- Molecular architecture and Structure 1.4.3
- 1.4.4 Surface science and nanostructures
- 1.4.5 Analytical chemistry

1.4.6	Chemical physics
1.4.7	Chemical instrumentation
1.4.8	Electrochemistry, electrodialysis, microfluidics, sensors
1.4.9	Method development in chemistry
1.4.10	Heterogeneous catalysis
1.4.11	Physical chemistry of biological systems
1.4.12	Chemical reactions: mechanisms, dynamics, kinetics and catalytic reactions
1.4.13	Theoretical and computational chemistry
1.4.14	Radiation and Nuclear chemistry
1.4.15	Photochemistry
1.4.16	Corrosion
1.4.17	Characterisation methods of materials
1.4.18	Environment chemistry

# 1.5 Synthetic Chemistry and Materials

New materials and new synthetic approaches, structure-properties relations, solid state chemistry, molecular architecture, organic chemistry

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1.5.1	Structural properties of materials
1.5.2	Solid state materials chemistry
1.5.3	Surface modification
1.5.4	Thin films
1.5.5	Ionic liquids
1.5.6	New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles
1.5.7	Biomaterials synthesis
1.5.8	Intelligent materials synthesis – self assembled materials
1.5.9	Coordination chemistry
1.5.10	Colloid chemistry
1.5.11	Biological chemistry and chemical biology
1.5.12	Chemistry of condensed matter
1.5.13	Homogeneous catalysis
1.5.14	Macromolecular chemistry
1.5.15	Polymer chemistry
1.5.16	Supramolecular chemistry
1.5.17	Organic chemistry

# 1.6 Computer Sciences and Informatics

Medicinal chemistry

1.5.18

Informatics and information systems, computer science, scientific computing, intelligent systems

- 1.6.1 Computer architecture, embedded systems, operating systems
- 1.6.2 Distributed systems, parallel computing, sensor networks, cyber-physical systems
- 1.6.3 Software engineering, programming languages and systems

1.6.4	Theoretical computer science, formal methods, automata
1.6.5	Security, privacy, cryptology, quantum cryptography
1.6.6	Algorithms and complexity, distributed, parallel and network algorithms, algorithmic game theory
1.6.7	Artificial intelligence, intelligent systems, natural language processing
1.6.8	Computer graphics, computer vision, multimedia, computer games
1.6.9	Human computer interaction and interface, visualisation
1.6.10	Web and information systems, data management systems, information retrieval and digital
	libraries, data fusion
1.6.11	Machine learning, statistical data processing and applications using signal processing (e.g. speech,
	image, video)
1.6.12	Scientific computing, simulation and modelling tools
1.6.13	Bioinformatics, bio-inspired computing, and natural computing
1.6.14	Quantum computing (formal methods, algorithms and other computer science aspects)

### 1.7 Systems and Communication Engineering

Electrical, electronic, communication, optical and systems engineering

- 1.7.1 Control engineering1.7.2 Electrical engineering: power components and/or systems
- 1.7.3 Simulation engineering and modelling
- 1.7.4 Micro- and nanosystems engineering
- 1.7.5 Micro- and nanoelectronic, optoelectronic and photonic components
- 1.7.6 Communication systems, wireless technology, high-frequency technology
- 1.7.7 Signal processing
- 1.7.8 Networks, e.g. communication networks and nodes, Internet of Things, sensor networks, networks of robots
- 1.7.9 Man-machine interfaces
- 1.7.10 Robotics
- 1.7.11 Components and systems for applications (in e.g. medicine, biology, environment)
- 1.7.12 Electrical energy production, distribution, applications

### 1.8 Products and Processes Engineering

Product and process design, chemical, civil, environmental, mechanical, vehicle engineering, energy processes and relevant computational methods

- 1.8.1 Aerospace engineering
- 1.8.2 Chemical engineering, technical chemistry
- 1.8.3 Civil engineering, architecture, offshore construction, lightweight construction, geotechnics
- 1.8.4 Computational engineering
- 1.8.5 Fluid mechanics
- 1.8.6 Energy processes engineering
- 1.8.7 Mechanical engineering
- 1.8.8 Propulsion engineering, e.g. hydraulic, turbo, piston, hybrid engines

- 1.8.9 Production technology, process engineering
  1.8.10 Manufacturing engineering and industrial design
  1.8.11 Environmental engineering, e.g. sustainable design, waste an
- 1.8.11 Environmental engineering, e.g. sustainable design, waste and water treatment, recycling, regeneration or recovery of compounds, carbon capture & storage
- 1.8.12 Naval/marine engineering
- 1.8.13 Industrial bioengineering
- 1.8.14 Automotive and rail engineering; multi-/inter-modal transport engineering

#### 1.9 Universe Sciences

Astro-physics/-chemistry/-biology; solar system; planetary systems; stellar, galactic and extragalactic astronomy; cosmology; space sciences; astronomical instrumentation and data

- 1.9.1 Solar physics the Sun and the heliosphere
- 1.9.2 Solar system science
- 1.9.3 Exoplanetary science, forma-on and characterization of extrasolar planets
- 1.9.4 Astrobiology
- 1.9.5 Interstellar medium and star formation
- 1.9.6 Stars stellar physics, stellar systems
- 1.9.7 The Milky Way
- 1.9.8 Galaxies formation, evolution, clusters
- 1.9.9 Cosmology and large-scale structure, dark matter, dark energy
- 1.9.10 Relativistic astrophysics and compact objects
- 1.9.11 Gravitational wave astronomy
- 1.9.12 High-energy and particle astronomy
- 1.9.13 Astronomical instrumentation and data, e.g. telescopes, detectors, techniques, archives, analyses

### 1.10 Earth System Science

Physical geography, geology, geophysics, atmospheric sciences, oceanography, climatology, cryology, ecology, global environmental change, biogeochemical cycles, natural resources management

- 1.10.1 Atmospheric chemistry, atmospheric composition, air pollution
- 1.10.2 Meteorology, atmospheric physics and dynamics
- 1.10.3 Climatology and climate change
- 1.10.4 Terrestrial ecology, land cover change
- 1.10.5 Geology, tectonics, volcanology
- 1.10.6 Palaeoclimatology, palaeoecology
- 1.10.7 Physics of earth's interior, seismology, geodynamics
- 1.10.8 Oceanography (physical, chemical, biological, geological)
- 1.10.9 Biogeochemistry, biogeochemical cycles, environmental chemistry
- 1.10.10 Mineralogy, petrology, igneous petrology, metamorphic petrology
- 1.10.11 Geochemistry, cosmochemistry, crystal chemistry, isotope geochemistry, thermodynamics
- 1.10.12 Sedimentology, soil science, palaeontology, earth evolution
- 1.10.13 Physical geography, geomorphology

- 1.10.14 Earth observations from space/remote sensing
- 1.10.15 Geomagnetism, palaeomagnetism
- 1.10.16 Ozone, upper atmosphere, ionosphere
- 1.10.17 Hydrology, hydrogeology, engineering and environmental geology, water and soil pollution
- 1.10.18 Cryosphere, dynamics of snow and ice cover, sea ice, permafrosts and ice sheets
- 1.10.19 Planetary geology and geophysics
- 1.10.20 Geohazards
- 1.10.21 Earth system modelling and interactions

## 1.11 Materials Engineering

Advanced materials development: performance enhancement, modelling, large-scale preparation, modification, tailoring, optimisation, novel and combined use of materials, etc.

- 1.11.1 Engineering of biomaterials, biomimetic, bioinspired and bio-enabled materials
- 1.11.2 Engineering of metals and alloys
- 1.11.3 Engineering of ceramics and glasses
- 1.11.4 Engineering of polymers and plastics
- 1.11.5 Engineering of composites and hybrid materials
- 1.11.6 Engineering of carbon materials
- 1.11.7 Engineering of metal oxides
- 1.11.8 Engineering of alternative established or emergent materials
- 1.11.9 Nanomaterials engineering, e.g. nanoparticles, nanoporous materials, 1D & 2D nanomaterials
- 1.11.10 Soft materials engineering, e.g. gels, foams, colloids
- 1.11.11 Porous materials engineering, e.g. covalent-organic, metal-organic, porous aromatic frameworks
- 1.11.12 Semi-conducting and magnetic materials engineering
- 1.11.13 Metamaterials engineering
- 1.11.14 Computational methods for materials engineering

#### 2.Life Sciences

## 2.1 Molecular Biology, Biochemistry, Biophysics, Structural Biology

For all organisms: Molecular biology, biochemistry, structural biology, molecular biophysics, synthetic and chemical biology, drug design, innovative methods and modelling

- 2.1.1 Macromolecular complexes including interactions involving nucleic acids, proteins, lipids and carbohydrates
- 2.1.2 Biochemistry
- 2.1.3 DNA and RNA biology
- 2.1.4 Protein biology
- 2.1.5 Lipid biology
- 2.1.6 Glycobiology
- 2.1.7 Molecular biophysics, biomechanics, bioenergetics

- 2.1.8 Structural biology
- 2.1.9 Molecular mechanisms of signalling processes
- 2.1.10 Synthetic biology
- 2.1.11 Chemical biology
- 2.1.12 Protein design
- 2.1.13 Early translational research and drug design
- 2.1.14 Innovative methods and modelling in molecular, structural and synthetic biology

### 2.2 Genetics, Epigenetics, Genomics, Other 'omics and Bioinformatics

For all organisms: Genetics, epigenetics, genomics and other 'omics studies, bioinformatics, systems biology, genetic diseases, gene editing, innovative methods and modelling, 'omics for personalised medicine

- 2.2.1 Genetics
- 2.2.2 Gene editing
- 2.2.3 Epigenetics
- 2.2.4 Gene regulation
- 2.2.5 Genomics
- 2.2.6 Metagenomics
- 2.2.7 Transcriptomics
- 2.2.8 Proteomics
- 2.2.9 Metabolomics
- 2.2.10 Glycomics/Lipidomics
- 2.2.11 Bioinformatics and computational biology
- 2.2.12 Biostatistics
- 2.2.13 Systems biology
- 2.2.14 Genetic diseases
- 2.2.15 Integrative biology for personalised medicine
- 2.2.16 Innovative methods and modelling in integrative biology

## 2.3 Cellular, Developmental and Regenerative Biology

For all organisms: Structure and function of the cell, cell-cell communication, embryogenesis, tissue differentiation, organogenesis, growth, development, evolution of development, organoids, stem cells, regeneration, therapeutic approaches

- 2.3.1 Cell cycle, cell division and growth
- 2.3.2 Cell senescence, cell death, autophagy, cell ageing
- 2.3.3 Cell behaviour, including control of cell shape, cell migration
- 2.3.4 Cell junctions, cell adhesion, the extracellular matrix, cell communication
- 2.3.5 Cell signalling and signal transduction, exosome biology
- 2.3.6 Organelle biology and trafficking
- 2.3.7 Mechanobiology of cells, tissues and organs
- 2.3.8 Embryogenesis, pattern formation, morphogenesis
- 2.3.9 Cell differentiation, formation of tissues and organs

2.3.10	Developmental genetics
2.3.11	Evolution of developmental strategies
2.3.12	Organoids
2.3.13	Stem cells
2.3.14	Regeneration
2.3.15	Development of cell-based therapeutic approaches for tissue regeneration
2.3.16	Functional imaging of cells and tissues
2.3.17	Theoretical modelling in cellular, developmental and regenerative biology

### 2.4 Physiology in Health, Disease and Ageing

Organ and tissue physiology, comparative physiology, physiology of ageing, pathophysiology, intertiorgan and tissue communication, endocrinology, nutrition, metabolism, interaction with the microbiome, non-communicable diseases including cancer (and except disorders of the nervous system and immunity-related diseases)

- 2.4.1 Organ and tissue physiology and pathophysiology 2.4.2 Comparative physiology 2.4.3 Physiology of ageing 2.4.4 Endocrinology 2.4.5 Non-hormonal mechanisms of inter-organ and tissue communication 2.4.6 Microbiome and host physiology 2.4.7 Nutrition and exercise physiology 2.4.8 Impact of stress (including environmental stress) on physiology 2.4.9 Metabolism and metabolic disorders, including diabetes and obesity 2.4.10 The cardiovascular system and cardiovascular diseases 2.4.11 Haematopoiesis and blood diseases 2.4.12
- 2.4.13 Other non-communicable diseases (except disorders of the nervous system and immunity-related diseases)

### 2.5 Neuroscience and Disorders of the Nervous System

Nervous system development, homeostasis and ageing, nervous system function and dysfunction, systems neuroscience and modelling, biological basis of cognitive processes and of behaviour, neurological and mental disorders

2.5.1 Neuronal cells 2.5.2 Glial cells and neuronal-glial communication 2.5.3 Neural development and related disorders 2.5.4 Neural stem cells 2.5.5 Neural networks and plasticity 2.5.6 Neurovascular biology and blood-brain barrier 2.5.7 Sensory systems, sensation and perception, including pain 2.5.8 Neural basis of behaviour 2.5.9 Neural basis of cognition

2.5.10	Ageing of the nervous system
2.5.11	Neurological and neurodegenerative disorders
2.5.12	Mental disorders
2.5.13	Nervous system injuries and trauma, stroke
2.5.14	Repair and regeneration of the nervous system
2.5.15	Neuroimmunology, neuroinflammation
2.5.16	Systems and computational neuroscience
2.5.17	Imaging in neuroscience
2.5.18	Innovative methods and tools for neuroscience

## 2.6 Immunity, Infection and Immunotherapy

The immune system, related disorders and their mechanisms, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases, innovative immunological tools and approaches, including therapies

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2.6.1	Innate immunity
2.6.2	Adaptive immunity
2.6.3	Regulation of the immune response
2.6.4	Immune-related diseases
2.6.5	Biology of pathogens (e.g. bacteria, viruses, parasites, fungi)
2.6.6	Infectious diseases
2.6.7	Mechanisms of infection
2.6.8	Biological basis of prevention and treatment of infection
2.6.9	Antimicrobials, antimicrobial resistance
2.6.10	Vaccine development
2.6.11	Innovative immunological tools and approaches, including therapies

### 2.7 Prevention, Diagnosis and Treatment of Human Diseases

Medical technologies and tools for prevention, diagnosis and treatment of human diseases, therapeutic approaches and interventions, pharmacology, preventative medicine, epidemiology and public health, digital medicine

- 2.7.1 Medical imaging for prevention, diagnosis and monitoring of diseases
  2.7.2 Medical technologies and tools (including genetic tools and biomarkers) for prevention, diagnosis, monitoring and treatment of diseases
  2.7.3 Nanomedicine
  2.7.4 Regenerative medicine
  2.7.5 Applied gene, cell and immune therapies
- 2.7.6 Other medical therapeutic interventions, including transplantation
- 2.7.7 Pharmacology and toxicology
- 2.7.8 Effectiveness of interventions, including resistance to therapies
- 2.7.9 Public health and epidemiology
- 2.7.10 Preventative and prognostic medicine

- 2.7.11 Environmental health, occupational medicine
- 2.7.12 Health care, including care for the ageing population
- 2.7.13 Palliative medicine
- 2.7.14 Digital medicine, e-medicine, medical applications of artificial intelligence
- 2.7.15 Medical ethics

## 2.8 Environmental Biology, Ecology, Evolution, Biodiversity

For all organisms: Ecology, biodiversity, environmental change, evolutionary biology, behavioural ecology, microbial ecology, marine biology, ecophysiology, theoretical developments and modelling

- 2.8.1 Ecosystem and community ecology, macroecology
- 2.8.2 Biodiversity
- 2.8.3 Conservation biology
- 2.8.4 Population biology, population dynamics, population genetics
- 2.8.5 Biological aspects of environmental change, including climate change
- 2.8.6 Evolutionary ecology
- 2.8.7 Evolutionary genetics
- 2.8.8 Phylogenetics, systematics, comparative biology
- 2.8.9 Macroevolution and paleobiology
- 2.8.10 Ecology and evolution of species interactions
- 2.8.11 Behavioural ecology and evolution
- 2.8.12 Microbial ecology and evolution
- 2.8.13 Marine biology and ecology
- 2.8.14 Ecophysiology, from organisms to ecosystems
- 2.8.15 Theoretical developments and modelling in environmental biology, ecology, and evolution

### 2.9 Biotechnology and Biosystems Engineering

Biotechnology using all organisms, biotechnology for environment and food applications, applied plant and animal sciences, bioengineering and synthetic biology, biomass and biofuels, biohazards

- 2.9.1 Bioengineering for synthetic and chemical biology
- 2.9.2 Applied genetics, gene editing and transgenic organisms
- 2.9.3 Bioengineering of cells, tissues, organs and organisms
- 2.9.4 Microbial biotechnology and bioengineering
- 2.9.5 Food biotechnology and bioengineering
- 2.9.6 Marine biotechnology and bioengineering
- 2.9.7 Environmental biotechnology and bioengineering
- 2.9.8 Applied plant sciences, plant breeding, agroecology and soil biology
- 2.9.9 Plant pathology and pest resistance
- 2.9.10 Veterinary and applied animal sciences
- 2.9.11 Biomass production and utilisation, biofuels
- 2.9.12 Ecotoxicology, biohazards and biosafety

### 3. Social Sciences and Humanities

### 3.1 Economics, Finance, Management

Individuals, Markets and Organisations

- 3.1.1 Macroeconomics; monetary economics; economic growth
- 3.1.2 International trade; international management; international business; spatial economics
- 3.1.3 Development economics; structural change; political economy of development
- 3.1.4 Finance; asset pricing; international finance; market microstructure
- 3.1.5 Corporate finance; banking and financial intermediation; accounting; auditing; insurance
- 3.1.6 Econometrics; operations research
- 3.1.7 Behavioural economics; experimental economics; neuro-economics
- 3.1.8 Microeconomic theory; game theory; decision theory
- 3.1.9 Industrial organisation; entrepreneurship; R&D and innovation
- 3.1.10 Management; strategy; organisational behaviour
- 3.1.11 Human resource management; operations management, marketing
- 3.1.12 Environmental economics; resource and energy economics; agricultural economics
- 3.1.13 Labour and demographic economics
- 3.1.14 Health economics; economics of education
- 3.1.15 Public economics; political economics; law and economics
- 3.1.16 Historical economics; quantitative economic history; institutional economics; economic systems

#### 3.2 Political science, Governance and Law

Institutions, systems, governance

- 3.2.1 Political systems, governance
- 3.2.2 Democratisation and social movements
- 3.2.3 Conflict resolution, war, peace building, international law
- 3.2.4 Legal studies, constitutions, human rights, comparative law
- 3.2.5 International relations, global and transnational governance
- 3.2.6 Humanitarian assistance and development
- 3.2.7 Political and legal philosophy
- 3.2.8 Big data in political and legal studies

### 3.3 Sociology, Anthropology, Education Sciences, Communication

Sociology, social psychology, social anthropology, education sciences, communication studies

- 3.3.1 Social structure, social mobility, social innovation
- 3.3.2 Inequalities, discrimination, prejudice
- 3.3.3 Aggression and violence, an-social behaviour, crime
- 3.3.4 Social integration, exclusion, prosocial behaviour
- 3.3.5 Attitudes and beliefs
- 3.3.6 Social influence; power and group behaviour

3.3.7	Kinship; diversity and identities, gender, interethnic relations
3.3.8	Social policies, welfare, work and employment
3.3.9	Poverty and poverty alleviation
3.3.10	Religious studies, ritual; symbolic representation
3.3.11	Social aspects of teaching and learning, curriculum studies, education and educational policies
3.3.12	Communication and information, networks, media
3.3.13	Digital social research
3.3.14	Social studies of science and technology

## 3.4 Psychology, Linguistics, Philosophy

Cognitive science, psychology, linguistics, theoretical philosophy, logics

3.4.1	Cognitive basis of human development and education, developmental disorders; comparative
	cognition

- 3.4.2 Personality and social cognition; emotion
- 3.4.3 Clinical and health psychology
- 3.4.4 Neuropsychology
- 3.4.5 Attention, perception, action, consciousness
- 3.4.6 Learning, memory; cognition in ageing
- 3.4.7 Reasoning, decision-making; intelligence
- 3.4.8 Language learning and processing (first and second languages)
- 3.4.9 Theoretical linguistics; computational linguistics
- 3.4.10 Language typology; historical linguistics
- 3.4.11 Pragmatics, sociolinguistics, linguistic anthropology, discourse analysis
- 3.4.12 Philosophy of mind, philosophy of language
- 3.4.13 Philosophy of science, epistemology, logic

## 3.5 Literary studies, cultural studies, study of the arts

Literary studies, cultural studies, study of the arts, philosophy

- 3.5.1 Classics, ancient literature and art
- 3.5.2 Theory and history of literature, comparative literature
- 3.5.3 Philology; text and image studies
- 3.5.4 Visual and performing arts, film, design and architecture
- 3.5.5 Music and musicology; history of music
- 3.5.6 History of art and architecture, arts-based research
- 3.5.7 Museums, exhibitions, conservation and restoration
- 3.5.8 Cultural studies, cultural identities and memories, cultural heritage
- 3.5.9 Metaphysics, philosophical anthropology; aesthetics
- 3.5.10 Ethics and its applications; social philosophy
- 3.5.11 History of philosophy
- 3.5.12 Computational modelling and digitisation in the cultural sphere

## 3.6 Archaeology and history

The study of the human Past

- 3.6.1 Historiography, theory and methods in history, including the analysis of digital data
- 3.6.2 Classical archaeology, history of archaeology, social archaeology
- 3.6.3 General archaeology, archaeometry, landscape archaeology
- 3.6.4 Prehistory, palaeoanthropology, palaeodemography, protohistory, bioarchaeology
- 3.6.5 Palaeography and codicology
- 3.6.6 Ancient history
- 3.6.7 Medieval history
- 3.6.8 Early modern history
- 3.6.9 Modern and contemporary history
- 3.6.10 Colonial and post-colonial history
- 3.6.11 Global history, transnational history, comparative history, entangled histories
- 3.6.12 Social and economic history
- 3.6.13 Gender history, cultural history, history of collective identities and memories, history of religions
- 3.6.14 History of ideas, intellectual history, history of economic thought
- 3.6.15 History of science, medicine and technologies

## 3.7 Human Geography, Demography, Territorial Planning

Human geography, demography, health, sustainability science, territorial planning, spatial analysis

- 3.7.1 Human, economic and social geography
- 3.7.2 Migration
- 3.7.3 Population dynamics: households, family and fertility
- 3.7.4 Social aspects of health, ageing and society
- 3.7.5 Sustainability sciences, environment and resources
- 3.7.6 Environmental and climate change, societal impact and policy
- 3.7.7 Cities; urban, regional and rural studies
- 3.7.8 Land use and planning
- 3.7.9 Energy, transportation and mobility
- 3.7.10 GIS, spatial analysis; big data in geographical studies

### 4. Georgian Studies

## 4.1 Georgian Language, Abkhazian Language and Diversity of Kartvelian Languages

- 4.1.1 Georgian language, Kartvelian languages
- 4.1.2 Abkhazian language
- 4.1.3 Caucasian languages
- 4.1.4 Linguistic technologies
- 4.1.5 Language minorities of Georgia
- 4.1.6 History of Linguistics

### 4.2 Georgian Literature, Art and Culture

- 4.2.1 Georgian literature
- 4.2.2 Manuscripts, epigraphy, sphragistics
- 4.2.3 Georgian architecture
- 4.2.4 Georgian painting, attire, applied arts
- 4.2.5 Georgian folklore, polyphony, choreography
- 4.2.6 Georgian theater and cinema
- 4.2.7 Studies of Abkhazian culture

## 4.3 History, Archeology, Ethnology and National Identity of Georgia

- 4.3.1 Georgian historiography
- 4.3.2 History of a separate period and epoch
- 4.3.3 Archeology and archaeometry
- 4.3.4 Paleography, codicology, numismatics and heraldry
- 4.3.5 Social and economic history of Georgia
- 4.3.6 History of Georgian science, medicine and technology
- 4.3.7 Ethnology and anthropology
- 4.3.8 Religions
- 4.3.9 Georgian diaspora

## 4.4 Geography and Demography of Georgia

- 4.4.1 Geomorphology, climatology, cartography, landscape and landscape planning of Georgia
- 4.4.2 Economic, political and social geography of Georgia
- 4.4.3 Georgian soils
- 4.4.4 Demography of Georgia

### 4.5 Georgian Governance Systems and International Relations

- 4.5.1 Political systems in Georgia
- 4.5.2 Conflicts and wars
- 4.5.3 Social movements
- 4.5.4 Studies of Georgian law and human Rights
- 4.5.5 International relations, Georgian diplomacy, international influences