GAMU Keywords

### Physical Sciences and Engineering

**PE1 Mathematics**

All areas of mathematics, pure and applied, plus mathematical foundations of computer science, mathematical physics and statistics

PE1\_1 Logic and foundations

PE1\_2 Algebra

PE1\_3 Number theory

PE1\_4 Algebraic and complex geometry

PE1\_5 Lie groups, Lie algebras

PE1\_6 Geometry and global analysis

PE1\_7 Topology

PE1\_8 Analysis

PE1\_9 Operator algebras and functional analysis

PE1\_10 ODE and dynamical systems

PE1\_11 Theoretical aspects of partial diﬀerential equations

PE1\_12 Mathematical physics

PE1\_13 Probability

PE1\_14 Statistics

PE1\_15 Discrete mathematics and combinatorics

PE1\_16 Mathematical aspects of computer science

PE1\_17 Numerical analysis

PE1\_18 Scientiﬁc computing and data processing

PE1\_19 Control theory and optimisation

PE1\_20 Application of mathematics in sciences

PE1\_21 Application of mathematics in industry and society

**PE2 Fundamental Constituents of Matter**

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

PE2\_1 Theory of fundamental interactions

PE2\_2 Phenomenology of fundamental interactions

PE2\_3 Experimental particle physics with accelerators

PE2\_4 Experimental particle physics without accelerators

PE2\_5 Classical and quantum physics of gravitational interactions

PE2\_6 Nuclear, hadron and heavy ion physics

PE2\_7 Nuclear and particle astrophysics

PE2\_8 Gas and plasma physics

PE2\_9 Electromagnetism

PE2\_10 Atomic, molecular physics

PE2\_11 Ultra-cold atoms and molecules

PE2\_12 Optics, non-linear optics and nano-optics

PE2\_13 Quantum optics and quantum information

PE2\_14 Lasers, ultra-short lasers and laser physics

PE2\_15 Thermodynamics

PE2\_16 Non-linear physics

PE2\_17 Metrology and measurement

PE2\_18 Equilibrium and non-equilibrium statistical mechanics: steady states and dynamics

**PE3 Condensed Matter Physics**

Structure, electronic properties, ﬂuids, nanosciences, biological physics

PE3\_1 Structure of solids, material growth and characterisation

PE3\_2 Mechanical and acoustical properties of condensed matter, lattice dynamics

PE3\_3 Transport properties of condensed matter

PE3\_4 Electronic properties of materials, surfaces, interfaces, nanostructures

PE3\_5 Physical properties of semiconductors and insulators

PE3\_6 Macroscopic quantum phenomena, e.g. superconducvity, superﬂuidity, quantum Hall eﬀect

PE3\_7 Spintronics

PE3\_8 Magnetism and strongly correlated systems

PE3\_9 Condensed matter – beam interactions (photons, electrons, etc.)

PE3\_10 Nanophysics, e.g. nanoelectronics, nanophotonics, nanomagnetism, nanoelectromechanics

PE3\_11 Mesoscopic quantum physics and solid-state quantum technologies

PE3\_12 Molecular electronics

PE3\_13 Structure and dynamics of disordered systems, e.g. soft matter (gels, colloids, liquid crystals), granular matter, liquids, glasses, defects

PE3\_14 Fluid dynamics (physics)

PE3\_15 Statistical physics: phase transitions, condensed matter systems, models of complex systems, interdisciplinary applications

PE3\_16 Physics of biological systems

**PE4 Physical and Analytical Chemical Sciences**

Analytical chemistry, chemical theory, physical chemistry/chemical physics

PE4\_1 Physical chemistry

PE4\_2 Spectroscopic and spectrometric techniques

PE4\_3 Molecular architecture and Structure

PE4\_4 Surface science and nanostructures

PE4\_5 Analytical chemistry

PE4\_6 Chemical physics

PE4\_7 Chemical instrumentation

PE4\_8 Electrochemistry, electrodialysis, microﬂuidics, sensors

PE4\_9 Method development in chemistry

PE4\_10 Heterogeneous catalysis

PE4\_11 Physical chemistry of biological systems

PE4\_12 Chemical reactions: mechanisms, dynamics, kinetics and catalytic reactions

PE4\_13 Theoretical and computational chemistry

PE4\_14 Radiation and Nuclear chemistry

PE4\_15 Photochemistry

PE4\_16 Corrosion

PE4\_17 Characterisation methods of materials

PE4\_18 Environment chemistry

**PE5 Synthetic Chemistry and Materials**

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

PE5\_1 Structural properties of materials

PE5\_2 Solid state materials chemistry

PE5\_3 Surface modiﬁcation

PE5\_4 Thin ﬁlms

PE5\_5 Ionic liquids

PE5\_6 New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles

PE5\_7 Biomaterials synthesis

PE5\_8 Intelligent materials synthesis – self assembled materials

PE5\_9 Coordination chemistry

PE5\_10 Colloid chemistry

PE5\_11 Biological chemistry and chemical biology

PE5\_12 Chemistry of condensed matter

PE5\_13 Homogeneous catalysis

PE5\_14 Macromolecular chemistry

PE5\_15 Polymer chemistry

PE5\_16 Supramolecular chemistry

PE5\_17 Organic chemistry

PE5\_18 Medicinal chemistry

**PE6 Computer Science and Informatics**

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

PE6\_1 Computer architecture, embedded systems, operating systems

PE6\_2 Distributed systems, parallel computing, sensor networks, cyber-physical systems

PE6\_3 Software engineering, programming languages and systems

PE6\_4 Theoretical computer science, formal methods, automata

PE6\_5 Security, privacy, cryptology, quantum cryptography

PE6\_6 Algorithms and complexity, distributed, parallel and network algorithms, algorithmic game theory

PE6\_7 Artiﬁcial intelligence, intelligent systems, natural language processing

PE6\_8 Computer graphics, computer vision, multimedia, computer games

PE6\_9 Human computer interaction and interface, visualisation

PE6\_10 Web and information systems, data management systems, information retrieval and digital libraries, data fusion

PE6\_11 Machine learning, statistical data processing and applications using signal processing (e.g. speech, image, video)

PE6\_12 Scientiﬁc computing, simulation and modelling tools

PE6\_13 Bioinformatics, bio-inspired computing, and natural computing

PE6\_14 Quantum computing (formal methods, algorithms and other computer science aspects)

**PE7 Systems and Communication Engineering**

Electrical, electronic, communication, optical and systems engineering

PE7\_1 Control engineering

PE7\_2 Electrical engineering: power components and/or systems

PE7\_3 Simulation engineering and modelling

PE7\_4 (Micro- and nano-) systems engineering

PE7\_5 (Micro- and nano-) electronic, optoelectronic and photonic components

PE7\_6 Communication systems, wireless technology, high-frequency technology

PE7\_7 Signal processing

PE7\_8 Networks, e.g. communication networks and nodes, Internet of Things, sensor networks, networks of robots

PE7\_9 Man-machine interfaces

PE7\_10 Robotics

PE7\_11 Components and systems for applications (in e.g. medicine, biology, environment)

PE7\_12 Electrical energy production, distribution, applications

**PE8 Products and Processes Engineering**

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

PE8\_1 Aerospace engineering

PE8\_2 Chemical engineering, technical chemistry

PE8\_3 Civil engineering, architecture, oﬀshore construction, lightweight construction, geotechnics

PE8\_4 Computational engineering

PE8\_5 Fluid mechanics

PE8\_6 Energy processes engineering

PE8\_7 Mechanical engineering

PE8\_8 Propulsion engineering, e.g. hydraulic, turbo, piston, hybrid engines

PE8\_9 Production technology, process engineering

PE8\_10 Manufacturing engineering and industrial design

PE8\_11 Environmental engineering, e.g. sustainable design, waste and water treatment, recycling, regeneration or recovery of compounds, carbon capture & storage

PE8\_12 Naval/marine engineering

PE8\_13 Industrial bioengineering

PE8\_14 Automotive and rail engineering; multi-/inter-modal transport engineering

**PE9 Universe Sciences**

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

PE9\_1 Solar physics – the Sun and the heliosphere

PE9\_2 Solar system science

PE9\_3 Exoplanetary science, formation and characterization of extrasolar planets

PE9\_4 Astrobiology

PE9\_5 Interstellar medium and star formation

PE9\_6 Stars – stellar physics, stellar systems

PE9\_7 The Milky Way

PE9\_8 Galaxies – formation, evolution, clusters

PE9\_9 Cosmology and large-scale structure, dark matter, dark energy

PE9\_10 Relativistic astrophysics and compact objects

PE9\_11 Gravitational wave astronomy

PE9\_12 High-energy and particle astronomy

PE9\_13 Astronomical instrumentation and data, e.g. telescopes, detectors, techniques, archives, analyses

**PE10 Earth System Science**

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

PE10\_1 Atmospheric chemistry, atmospheric composition, air pollution

PE10\_2 Meteorology, atmospheric physics and dynamics

PE10\_3 Climatology and climate change

PE10\_4 Terrestrial ecology, land cover change

PE10\_5 Geology, tectonics, volcanology

PE10\_6 Palaeoclimatology, palaeoecology

PE10\_7 Physics of earth’s interior, seismology, geodynamics

PE10\_8 Oceanography (physical, chemical, biological, geological)

PE10\_9 Biogeochemistry, biogeochemical cycles, environmental chemistry

PE10\_10 Mineralogy, petrology, igneous petrology, metamorphic petrology

PE10\_11 Geochemistry, cosmochemistry, crystal chemistry, isotope geochemistry, thermodynamics

PE10\_12 Sedimentology, soil science, palaeontology, earth evolution

PE10\_13 Physical geography, geomorphology

PE10\_14 Earth observations from space/remote sensing

PE10\_15 Geomagnetism, palaeomagnetism

PE10\_16 Ozone, upper atmosphere, ionosphere

PE10\_17 Hydrology, hydrogeology, engineering and environmental geology, water and soil pollution

PE10\_18 Cryosphere, dynamics of snow and ice cover, sea ice, permafrosts and ice sheets

PE10\_19 Planetary geology and geophysics

PE10\_20 Geohazards

PE10\_21 Earth system modelling and interactions

**PE11 Materials Engineering**

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

PE11\_1 Engineering of biomaterials, biomimetic, bioinspired and bio-enabled materials

PE11\_2 Engineering of metals and alloys

PE11\_3 Engineering of ceramics and glasses

PE11\_4 Engineering of polymers and plastics

PE11\_5 Engineering of composites and hybrid materials

PE11\_6 Engineering of carbon materials

PE11\_7 Engineering of metal oxides

PE11\_8 Engineering of alternative established or emergent materials

PE11\_9 Nanomaterials engineering, e.g. nanoparticles, nanoporous materials, 1D & 2D nanomaterials

PE11\_10 Soft materials engineering, e.g. gels, foams, colloids

PE11\_11 Porous materials engineering, e.g. covalent-organic, metal-organic, porous aromatic frameworks

PE11\_12 Semi-conducting and magnetic materials engineering

PE11\_13 Metamaterials engineering

PE11\_14 Computational methods for materials engineering

### Life Sciences

**LS1 Molecules of Life: Biological Mechanisms, Structures and Functions**

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

LS1\_1 Macromolecular complexes including interactions involving nucleic acids, proteins, lipids and carbohydrates

LS1\_2 Biochemistry

LS1\_3 DNA and RNA biology

LS1\_4 Protein biology

LS1\_5 Lipid biology

LS1\_6 Glycobiology

LS1\_7 Molecular biophysics, biomechanics, bioenergetics

LS1\_8 Structural biology

LS1\_9 Molecular mechanisms of signalling processes

LS1\_10 Synthetic biology

LS1\_11 Chemical biology

LS1\_12 Protein design

LS1\_13 Early translational research and drug design

LS1\_14 Innovative methods and modelling in molecular, structural and synthetic biology

**LS2 Integrative Biology: from Genes and Genomes to Systems**

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

LS2\_1 Genetics

LS2\_2 Gene editing

LS2\_3 Epigenetics

LS2\_4 Gene regulation

LS2\_5 Genomics

LS2\_6 Metagenomics

LS2\_7 Transcriptomics

LS2\_8 Proteomics

LS2\_9 Metabolomics

LS2\_10 Glycomics/Lipidomics

LS2\_11 Bioinformatics and computational biology

LS2\_12 Biostatistics

LS2\_13 Systems biology

LS2\_14 Genetic diseases

LS2\_15 Integrative biology for personalised medicine

LS2\_16 Innovative methods and modelling in integrative biology

**LS3 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

LS3\_1 Cell cycle, cell division and growth

LS3\_2 Cell senescence, cell death, autophagy, cell ageing

LS3\_3 Cell behaviour, including control of cell shape, cell migration

LS3\_4 Cell junctions, cell adhesion, the extracellular matrix, cell communication

LS3\_5 Cell signalling and signal transduction, exosome biology

LS3\_6 Organelle biology and traﬃcking

LS3\_7 Mechanobiology of cells, tissues and organs

LS3\_8 Embryogenesis, pattern formation, morphogenesis

LS3\_9 Cell diﬀerentiation, formation of tissues and organs

LS3\_10 Developmental genetics

LS3\_11 Evolution of developmental strategies

LS3\_12 Organoids

LS3\_13 Stem cells

LS3\_14 Regeneration

LS3\_15 Development of cell-based therapeutic approaches for tissue regeneration

LS3\_16 Functional imaging of cells and tissues

LS3\_17 Theoretical modelling in cellular, developmental and regenerative biology

**LS4 Physiology in Health, Disease and Ageing**

Organ and tissue physiology, comparative physiology, physiology of ageing, pathophysiology, inter-organ 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)

LS4\_1 Organ and tissue physiology and pathophysiology

LS4\_2 Comparative physiology

LS4\_3 Physiology of ageing

LS4\_4 Endocrinology

LS4\_5 Non-hormonal mechanisms of inter-organ and tissue communication

LS4\_6 Microbiome and host physiology

LS4\_7 Nutrition and exercise physiology

LS4\_8 Impact of stress (including environmental stress) on physiology

LS4\_9 Metabolism and metabolic disorders, including diabetes and obesity

LS4\_10 The cardiovascular system and cardiovascular diseases

LS4\_11 Haematopoiesis and blood diseases

LS4\_12 Cancer

LS4\_13 Other non-communicable diseases (except disorders of the nervous system and immunity-related diseases)

**LS5 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

LS5\_1 Neuronal cells

LS5\_2 Glial cells and neuronal-glial communication

LS5\_3 Neural development and related disorders

LS5\_4 Neural stem cells

LS5\_5 Neural networks and plasticity

LS5\_6 Neurovascular biology and blood-brain barrier

LS5\_7 Sensory systems, sensation and perception, including pain

LS5\_8 Neural basis of behaviour

LS5\_9 Neural basis of cognition

LS5\_10 Ageing of the nervous system

LS5\_11 Neurological and neurodegenerative disorders

LS5\_12 Mental disorders

LS5\_13 Nervous system injuries and trauma, stroke

LS5\_14 Repair and regeneration of the nervous system

LS5\_15 Neuroimmunology, neuroinﬂammation

LS5\_16 Systems and computational neuroscience

LS5\_17 Imaging in neuroscience

LS5\_18 Innovative methods and tools for neuroscience

**LS6 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

LS6\_1 Innate immunity

LS6\_2 Adaptive immunity

LS6\_3 Regulation of the immune response

LS6\_4 Immune-related diseases

LS6\_5 Biology of pathogens (e.g. bacteria, viruses, parasites, fungi)

LS6\_6 Infectious diseases

LS6\_7 Mechanisms of infection

LS6\_8 Biological basis of prevention and treatment of infection

LS6\_9 Antimicrobials, antimicrobial resistance

LS6\_10 Vaccine development

LS6\_11 Innovative immunological tools and approaches, including therapies

**LS7 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

LS7\_1 Medical imaging for prevention, diagnosis and monitoring of diseases

LS7\_2 Medical technologies and tools (including genetic tools and biomarkers) for prevention, diagnosis, monitoring and treatment of diseases

LS7\_3 Nanomedicine

LS7\_4 Regenerative medicine

LS7\_5 Applied gene, cell and immune therapies

LS7\_6 Other medical therapeutic interventions, including transplantation

LS7\_7 Pharmacology and toxicology

LS7\_8 Eﬀectiveness of interventions, including resistance to therapies

LS7\_9 Public health and epidemiology

LS7\_10 Preventative and prognostic medicine

LS7\_11 Environmental health, occupational medicine

LS7\_12 Health care, including care for the ageing population

LS7\_13 Palliative medicine

LS7\_14 Digital medicine, e-medicine, medical applications of artiﬁcial intelligence

LS7\_15 Medical ethics

**LS8 Environmental Biology, Ecology and Evolution**

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

LS8\_1 Ecosystem and community ecology, macroecology

LS8\_2 Biodiversity

LS8\_3 Conservation biology

LS8\_4 Population biology, population dynamics, population genetics

LS8\_5 Biological aspects of environmental change, including climate change

LS8\_6 Evolutionary ecology

LS8\_7 Evolutionary genetics

LS8\_8 Phylogenetics, systematics, comparative biology

LS8\_9 Macroevolution and paleobiology

LS8\_10 Ecology and evolution of species interactions

LS8\_11 Behavioural ecology and evolution

LS8\_12 Microbial ecology and evolution

LS8\_13 Marine biology and ecology

LS8\_14 Ecophysiology, from organisms to ecosystems

LS8\_15 Theoretical developments and modelling in environmental biology, ecology, and evolution

**LS9 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

LS9\_1 Bioengineering for synthetic and chemical biology

LS9\_2 Applied genetics, gene editing and transgenic organisms

LS9\_3 Bioengineering of cells, tissues, organs and organisms

LS9\_4 Microbial biotechnology and bioengineering

LS9\_5 Food biotechnology and bioengineering

LS9\_6 Marine biotechnology and bioengineering

LS9\_7 Environmental biotechnology and bioengineering

LS9\_8 Applied plant sciences, plant breeding, agroecology and soil biology

LS9\_9 Plant pathology and pest resistance LS9\_10 Veterinary and applied animal sciences

LS9\_11 Biomass production and utilisation, biofuels

LS9\_12 Ecotoxicology, biohazards and biosafety

### Social Sciences and Humanities

**SH1 Individuals, Markets and Organisations**

Economics, ﬁnance, management

SH1\_1 Macroeconomics; monetary economics; economic growth

SH1\_2 International trade; international management; international business; spatial economics

SH1\_3 Development economics; structural change; political economy of development

SH1\_4 Finance; asset pricing; international ﬁnance; market microstructure

SH1\_5 Corporate ﬁnance; banking and ﬁnancial intermediation; accounting; auditing; insurance

SH1\_6 Econometrics; operations research

SH1\_7 Behavioural economics; experimental economics; neuro-economics

SH1\_8 Microeconomic theory; game theory; decision theory

SH1\_9 Industrial organisation; entrepreneurship; R&D and innovation

SH1\_10 Management; strategy; organisational behaviour

SH1\_11 Human resource management; operations management, marketing

SH1\_12 Environmental economics; resource and energy economics; agricultural economics

SH1\_13 Labour and demographic economics

SH1\_14 Health economics; economics of education

SH1\_15 Public economics; political economics; law and economics

SH1\_16 Historical economics; quantitative economic history; institutional economics; economic systems

**SH2 Institutions, Governance and Legal Systems**

Political science, international relations, law

SH2\_1 Political systems, governance

SH2\_2 Democratisation and social movements

SH2\_3 Conﬂict resolution, war, peace building, international law

SH2\_4 Legal studies, constitutions, human rights, comparative law

SH2\_5 International relations, global and transnational governance

SH2\_6 Humanitarian assistance and development

SH2\_7 Political and legal philosophy

SH2\_8 Big data in political and legal studies

**SH3 The Social World and Its Diversity**

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

SH3\_1 Social structure, social mobility, social innovation

SH3\_2 Inequalities, discrimination, prejudice

SH3\_3 Aggression and violence, antisocial behaviour, crime

SH3\_4 Social integration, exclusion, prosocial behaviour

SH3\_5 Attitudes and beliefs

SH3\_6 Social inﬂuence; power and group behaviour

SH3\_7 Kinship; diversity and identities, gender, interethnic relations

SH3\_8 Social policies, welfare, work and employment

SH3\_9 Poverty and poverty alleviation

SH3\_10 Religious studies, ritual; symbolic representation

SH3\_11 Social aspects of teaching and learning, curriculum studies, education and educational policies

SH3\_12 Communication and information, networks, media

SH3\_13 Digital social research

SH3\_14 Social studies of science and technology

**SH4 The Human Mind and Its Complexity**

Cognitive science, psychology, linguistics, theoretical philosophy

SH4\_1 Cognitive basis of human development and education, developmental disorders; comparative cognition

SH4\_2 Personality and social cognition; emotion

SH4\_3 Clinical and health psychology

SH4\_4 Neuropsychology

SH4\_5 Attention, perception, action, consciousness

SH4\_6 Learning, memory; cognition in ageing

SH4\_7 Reasoning, decision-making; intelligence

SH4\_8 Language learning and processing (ﬁrst and second languages)

SH4\_9 Theoretical linguistics; computational linguistics

SH4\_10 Language typology; historical linguistics

SH4\_11 Pragmatics, sociolinguistics, linguistic anthropology, discourse analysis

SH4\_12 Philosophy of mind, philosophy of language

SH4\_13 Philosophy of science, epistemology, logic

**SH5 Cultures and Cultural Production**

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

SH5\_1 Classics, ancient literature and art

SH5\_2 Theory and history of literature, comparative literature

SH5\_3 Philology; text and image studies

SH5\_4 Visual and performing arts, ﬁlm, design and architecture

SH5\_5 Music and musicology; history of music

SH5\_6 History of art and architecture, arts-based research

SH5\_7 Museums, exhibitions, conservation and restoration

SH5\_8 Cultural studies, cultural identities and memories, cultural heritage

SH5\_9 Metaphysics, philosophical anthropology; aesthetics

SH5\_10 Ethics and its applications; social philosophy

SH5\_11 History of philosophy

SH5\_12 Computational modelling and digitisation in the cultural sphere

**SH6 The Study of the Human Past**

Archaeology and history

SH6\_1 Historiography, theory and methods in history, including the analysis of digital data

SH6\_2 Classical archaeology, history of archaeology, social archaeology

SH6\_3 General archaeology, archaeometry, landscape archaeology

SH6\_4 Prehistory, palaeoanthropology, palaeodemography, protohistory, bioarchaeology

SH6\_5 Palaeography and codicology

SH6\_6 Ancient history

SH6\_7 Medieval history

SH6\_8 Early modern history

SH6\_9 Modern and contemporary history

SH6\_10 Colonial and post-colonial history

SH6\_11 Global history, transnational history, comparative history, entangled histories

SH6\_12 Social and economic history

SH6\_13 Gender history, cultural history, history of collective identities and memories, history of religions

SH6\_14 History of ideas, intellectual history, history of economic thought

SH6\_15 History of science, medicine and technologies

**SH7 Human Mobility, Environment, and Space**

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

SH7\_1 Human, economic and social geography

SH7\_2 Migration

SH7\_3 Population dynamics: households, family and fertility

SH7\_4 Social aspects of health, ageing and society

SH7\_5 Sustainability sciences, environment and resources

SH7\_6 Environmental and climate change, societal impact and policy

SH7\_7 Cities; urban, regional and rural studies

SH7\_8 Land use and planning

SH7\_9 Energy, transportation and mobility

SH7\_10 GIS, spatial analysis; big data in geographical studies