# **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 Mathematical statistics
- PE1\_15 Generic statistical methodology and modelling
- PE1\_16 Discrete mathematics and combinatorics
- PE1 17 Mathematical aspects of computer science
- PE1\_18 Numerical analysis
- PE1 19 Scientific computing and data processing
- PE1\_20 Control theory, optimisation and operational research
- PE1\_21 Application of mathematics in sciences
- PE1 22 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\_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. superconductivity, 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, interorgan 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  $\ddot{\mu}$  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

#### Annex 1

- 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 rganization; entrepreneurship; R&D and innovation
- SH1\_10 Management; strategy; rganizational 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