

OWSD SCIENTIFIC FIELDS

NB: The list of sub-discipline areas is not exhaustive and is intended as indicative, in order to help applicants determine the most appropriate category for the purposes of their application.

For more information please write owsd@owsd.net

LIFE SCIENCES

High-level discipline groups as per OWSD online application forms	Research areas that can be included under high-level discipline groups
<p>Biological Systems and Organisms</p> <p>Structural, Cell and Molecular Biology</p>	<p>Molecular biology, Biochemistry, Structural Biology and Molecular Biophysics: molecular synthesis and modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways</p>
	<p>Genetics, 'Omics', Bioinformatics and Systems Biology: molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology</p>
	<p>Cellular and Developmental Biology: cell biology, cell physiology, signal transduction, organogenesis, developmental genetics, pattern formation and stem cell biology</p>
	<p>Ecology, Evolution and Environmental Biology: population biology, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology</p>
	<p>Synthetic Biology</p>
<p>Medical and Health Sciences</p>	<p>Physiology, Pathophysiology and Endocrinology: organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic and other syndromes</p>

<p>Medical and Health Sciences</p> <p>Neurosciences</p>	<p>Immunity and Infection: the immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases</p>
	<p>Medical Sciences: applied medical technologies, diagnostics, therapies, development of tools for diagnosis, monitoring and treatment of diseases, pharmacology, clinical medicine, regenerative medicine</p>
	<p>Neuroscience and Neural Disorders: neural cell function and signalling, systems neuroscience, neural bases of cognitive and behavioural processes, neurological and psychiatric disorders</p>
<p>Agricultural Sciences</p> <p>+</p> <p>Biological Systems and Organisms Structural, Cell and Molecular Biology Engineering Sciences</p>	<p>Applied Life Sciences, Agriculture, Biotechnology, and Molecular and Biosystems Engineering: applied plant and animal sciences, forestry, food sciences, applied/molecular biotechnology, environmental, and marine biotechnology, bioprocess engineering, biomass and biofuels, biohazards</p>

PHYSICAL SCIENCES AND ENGINEERING

High-level discipline groups as per OWSD online application forms	Research areas that can be included under high-level discipline groups
<p>Mathematical Sciences</p>	<p>Mathematics: all areas of mathematics, pure and applied, plus mathematical foundations of computer science, mathematical physics and statistics</p>
<p>Physics</p>	<p>Condensed Matter Physics: structure, electronic properties, fluids, nanosciences, biological physics</p>
	<p>Fundamental Constituents of Matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics</p>

<p style="text-align: center;">Chemical Sciences + Physics</p>	<p>Synthetic Chemistry and Materials: materials synthesis, structure-properties relations, functional and advanced materials, molecular architecture, organic chemistry</p>
	<p>Physical and Analytical Chemical Sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics</p>
<p style="text-align: center;">Astronomy, Space and Earth Sciences + Agricultural Sciences Biological Systems and Organisms</p>	<p>Earth System Science: physical geography, geology, geophysics, atmospheric sciences, oceanography, climatology, cryology, ecology, global environmental change, biogeochemical cycles, natural resources management</p>
	<p>Universe Sciences: astro-physics/chemistry/biology; solar system; stellar, galactic and extragalactic astronomy, planetary systems, cosmology, space science, instrumentation</p>
<p style="text-align: center;">Computing and Information Technology + Engineering Sciences</p>	<p>Computer Science and Informatics: data science, scientific computing, machine learning, robotics, artificial intelligence</p>
	<p>Systems and Communication Engineering: electrical, electronic, and optical engineering</p>
<p style="text-align: center;">Engineering Sciences + Chemical Sciences Agricultural Sciences Medical and Health Sciences</p>	<p>Products and processes engineering: product design, process design and control, construction methods, civil engineering, energy processes, material engineering</p>
	<p>Industrial, Mechanical, Chemical Engineering: mining and petroleum engineering, forest industry engineering, environmental engineering</p>
	<p>Medical Engineering</p>

SOCIAL SCIENCES (only for OWSD Membership)

- Anthropology
- Archaeology
- Communications
- Cultural Studies
- Demography and Social Statistics, Methods and Computing
- Development Studies
- Economics
- Education
- Environmental Planning
- Gender and Women Studies
- Geography
- History
- Law and Jurisprudence
- Linguistics
- Management and Business Studies
- Political Science
- Politics and International Relations
- Public Health
- Psychology
- Science and Technology Studies
- Social Policy
- Social Work
- Sociology