HELLENIC REPUBLIC

MINISTRY OF DEVELOPMENT AND INVESTMENTS

GENERAL SECRETARIAT FOR RESEARCH AND TECHNOLOGY

HELLENIC FOUNDATION FOR RESEARCH AND INNOVATION

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CORRECT REPETITION

Athens, 24.09.2020

Ref. No. 28317

3rd Call for H.F.R.I. Scholarships for PhD Candidates

Submission Opening: 20.10.2020, 12:00 (GMT+2)

Submission Deadline: 20.11.2020, 17:00 (GMT+2)

CONTENTS

The Director of the Hellenic Foundation for Research and Innovation, having regard to:

1. Law 4429/2016 on "Hellenic Foundation for Research and Innovation and other provisions", as in force, and especially Articles 2(1), 5(2-9), 8(9-10) and 9(7) therein,
2. Decision with Ref. No. 2195245/15.11.2018 issued by the Alternate Minister of Education, Research and Religious Affairs on "Internal Regulation of the Hellenic Foundation for Research and Innovation (H.F.R.I.)" (5252/B), as in force,
3. Decision with Ref. No. 133182/20.12.2019 issued by the Alternate Minister of Development and Investments "Annual planning of actions and resource allocation of the Hellenic Foundation for Research and Innovation (H.F.R.I.) for 2020" (4885/B),
4. Decision with Ref. No. 288/03.04.2017 issued by the Alternate Minister of Education, Research and Religious Affairs on the establishment of the H.F.R.I. Scientific Council (173/YODD), as in force after its amendment by decision no 68183/01.07.2020 issued by the Alternate Minister of Development and Investments (490/YODD),
5. Decision with Ref. No. 301/04.08.2017 issued by the 6th Meeting of the H.F.R.I. Scientific Council, appointing Dr. Nektarios Nasikas as H.F.R.I. Director (436/YODD),
6. Decision with Ref. No. 12105/23.04.2019 issued by the 52nd Meeting of the H.F.R.I. Scientific Council, assigning duties to the Director of the Foundation,
7. Decision with Ref. No. 27728/08.09.2020 issued by the 84th Meeting of the H.F.R.I. Scientific Council on the approval of the 3rd Call for H.F.R.I. Scholarships for PhD Candidates (IUN: ΨΞΙΙ46Μ77Γ-ΤΥ7),
8. Decision with Ref. No. 135278/27.12.2019 issued by the Minister of Development and Investments on the budget approval of the Hellenic Foundation for Research and Innovation (H.F.R.I.), for fiscal year 2020 (IUN: Ψ6ΙΥ46ΜΤΛΡ-7ΓΞ),
9. the fact that the budget of the Action burdens the H.F.R.I. budget,
10. Decision with Ref. No. 7886/21.12.2018 issued by the 39th Meeting of the H.F.R.I. Scientific Council on the approval for undertaking long-term commitment, as amended and in force,
11. Decision with Ref. No. 22202/24.02.2020 issued by the 73rd Meeting of the H.F.R.I. Scientific Council regarding the planning of actions for year 2020, as in force following its amendment by Decision with Ref. No. 24617/27.04.2020 issued by the 77th H.F.R.I. Meeting,

CALLS

Interested PhD Candidates to apply under the **3rd Call for H.F.R.I. Scholarships for PhD Candidates**, in line with the terms and conditions presented below.

1. ACTION OBJECTIVE AND GENERAL INFORMATION

The Call aims to support PhD Candidates (PhDCs) so that they may conduct high-level research in Greece. This action by the Hellenic Foundation for Research and Innovation (H.F.R.I.), provides funding to PhDCs so that they may carry out their doctoral dissertations in Greek Higher Educational Institutes (AEI) and Higher Educational Military Institutes (ASEI). The duration of the funding (in the form of a scholarship) is from 12 to 36 months.

2. SCIENTIFIC AREAS

Each application is submitted in one (1) Scientific field / subfield of one (1) of the following broad Scientific Areas:

SA.1. Physical Sciences

SA.2. Engineering Sciences & Technology

SA.3. Life Sciences

SA.4. Agricultural Sciences / Food Science and Technology

SA.5. Mathematics & Information Sciences

SA.6. Social Sciences

SA.7. Humanities & Arts

SA.8. Environment & Energy

SA.9. Management & Economics of Innovations

The Annex lists separate scientific fields and sub-fields of the Scientific Areas.

3. BUDGET / PROJECT DURATION

The total cost of this Call amounts to **€8.000.000**.

The monthly Scholarship amount for the PhD Candidate amounts to nine hundred euros (900,00 €). It is noted that the above scholarship amount is tax free.

Scholarship duration may extend from **12 to 36 months depending on the appointment date of the Three-Member Advisory Committee**. In particular, **the total duration of the scholarship may not exceed 36 months from the appointment date of the Three-Member Committee**.

The PhD Candidate may request a scholarship duration extension equal to, by maximum, the period between the deadline of application submission and the Scholarship Decision being issued, provided that the total scholarship duration awarded (including the extension) will not exceed 36 months.

Prevention of Double Funding

The physical scope of the doctoral thesis proposal must not have received funding, in part or in full, from any other institution. Furthermore, is not allowed for the PhDC to be receiving a scholarship for carrying out his/her doctoral thesis from any other source.

4. ELIGIBILITY CONDITIONS

The terms and conditions for participating in this Call are the following:

- That no more than **18 months** shall have elapsed from the appointment date of the Three-Member Advisory Committee by the application submission deadline. Candidates who have been accepted in preparing a doctoral thesis without the Three-Member Advisory Committee having been appointed are not eligible.

- That no more than three (3) years shall have elapsed since December 31st of the year the post-graduate degree was awarded in **and** no more than seven (7) years since December 31st of the year the graduate degree was awarded in.
  In the case of holders of a Unified and Indivisible Postgraduate Degree/ Integrated Master (EATSME), a necessary condition is that no more than seven (7) years shall have elapsed since December 31st of the year the basic degree was awarded in.
  In case where the candidate holds more than one postgraduate degree, taken into account is the year that the most recent degree was awarded in.

- For male candidates who have served their mandatory military service (in full or in part) after obtaining their basic or post-graduate degree the corresponding time intervals increase accordingly. Respectively, for women candidates who have become pregnant (in whole or in part) after obtaining the basic or postgraduate degree, the maximum time is increased by nine (9) months per child and up to two (2) children.

- That they shall not already hold a PhD in any other scientific field.

- That they shall not be receiving funding for the proposed doctoral research (for the whole or part of it) from any other source (public, private, European, international) for the duration of the scholarship.

- That they shall not be receiving unemployment benefits in Greece or abroad for the duration of the scholarship.

- Male candidates shall have completed their mandatory military service or have been legally exempt of serving or have secured military service deferment. The conditions of this

paragraph must be met at the time of final result publication **and cover the full duration of the scholarship**.

- That the PhDC must have a Greek Tax Number (VAT).

It is noted that during scholarship payment, the PhDC must not hold an employment relationship: i) in the public sector as a permanent employee or with a private law open-term employment relationship or ii) in the private sector with an open-term full-time employment relationship or a paid order.

In addition, the solidarity contribution imposition income of the PhDC for each tax year when the scholarship is paid out, along with the scholarship amount for that year, should not exceed fifteen thousand euro (€15.,000,00). In the event that the PC has a disability percentage of 67% and over, this income along with the scholarship amount should not exceed nineteen thousand euro (€19.000,00). The above limits do not include any remuneration paid retroactively and pertain to work/project performed before the scholarship began to be paid out.

4.1. Host Institution

Defined as Host Institutions (HIs) for the preparation of doctoral theses are:

- the Higher Educational Institutions (AEI) in Greece as provisioned under article 1 of Law 4485/2017 (GG Is. A' 114/2017),
- the Higher Military Educational Institutions (ASEI) of Law 3187/2003 (GG Is. A' 233/2003).

The PhDC shall list HI information upon Application submission.

All potential HIs will be available for selection on the on-line submission platform, in the form of a drop-down menu, allowing for only one selection.

In case where the thesis is being prepared in collaboration/ co-supervision with an institution provisioned in article 13a of Law 4310/2014 or a foreign institution, the PhDC shall have the option of declaring it in a relevant field on the Application submission platform.

5. APPLICATION SUBMISSION

Each PhDC may submit only one application as part of this Call. Submission is concluded exclusively **online** through H.F.R.I.'s internet portal (https://hfri.grnet.gr/). **All fields as well as posted documents are completed and written exclusively in the Greek language**. An exception is the part of the application regarding the doctoral thesis topic (title, abstract, extended summary) of candidates who have the approval of their Department's General Assembly of Special Composition

(GSES) for preparing their dissertation in another language. In this case the PhDC shall submit the pertinent GSES approval decision, or a Solemn Declaration on their part regarding the thesis drafting language in the corresponding submission platform field.

All documents are posted in PDF format.

Application submission requires the following:

- PhDC and doctoral thesis general information (Section A),
- PhDC scientific profile and doctoral thesis Subject (Section B).

The Application is considered a Solemn Declaration under Law 1599/1986 as to the accuracy of data stated and the content of documents submitted with it.

5.1. Section A: General information

Section A is filled out in the corresponding fields of the on-line submission platform and includes PhDC information and general information about the doctoral thesis, including the title and summary. The summary shall provide a clear presentation of doctoral thesis objectives and the way these are to be achieved. It is noted that in the event the PhDC is funded, this summary may be published and therefore, must be brief and accurate, not including confidential information.

In detail, the following information is filled out in Section A:

- **Thesis General Information**
  - Scientific area
  - Title/Subject of doctoral thesis (as defined in the G.A. related decision – in Greek and English)
  - Appointment date of the Three-member Advisory Committee.
  - Doctoral thesis summary (up to 2.000 characters, in Greek and English)
  - Keywords (up to 10)
  - Requested Scholarship Duration (in months)
- **PhDC Information** (Full name, contact details, VAT, etc – copies of degree titles are submitted)
- **Host Institution**
- **Collaborating/ Co-supervising Organizations** (School, Department or Research Centre-Institute or Organization/Institution, Country etc.)
- **Three-member Advisory Committee Members** (Full name, Affilation, contact details, VAT, etc.)

Information in Section A is filled-out in the **Greek language**, by exception of the title/subject and summary of the thesis, which are to be filled-out in the English language **as well**.

All relevant documents shall be posted in the respective fields of the on-line submission platform (copies of degree titles, certificate of appointment of the Three-Member Advisory Committee by the G.A., military status certificate, etc.).

5.2. Section B: PhD Candidate Scientific profile and thesis Subject

Section B consists of two (2) separate sections, Section B1 and Section B2, which are submitted in the **Greek Language**.

Templates for these separate Sections will be available in the H.F.R.I. website, www.elidek.gr/call/.

The first page (cover page) of separate section in the Application shall list: i) the PhDC's full name, ii) the doctoral thesis title, iii) the Scientific Area, iv) the requested scholarship duration (in months), v) the Host Institution of the thesis and vi) the Collaborating Organization (in case of co-supervision).

Each page should include a header bearing the PhDC's full name, the corresponding Scientific Area, as well as a footer with reference to the total page number.

Table 1 lists the technical specifications that all submitted documents are suggested to follow.

Table 1. *Technical specifications of documents*

Page Size	Fonts	Font Size	Line Spacing	Page Margins
A4	Times New Roman, Arial, Calibri of similar	11 pt (at least)	Single (at least)	Top-Bottom: 1,5 cm Left-Right: 2 cm

Document length limitations (number of pages) are strictly observed. Only text within above mentioned limits will be taken into consideration during evaluation.

5.2.1. Section B1: PhD Candidate Scientific profile and statement of incentives for carrying out a thesis

Section B1 includes the following separate sections:

Section B1.1. PC Curriculum vitae (maximum length: 3 pages)

Section B1.1. includes the PhDC's Curriculum vitae, listing inter alia any PhDC publications in peer reviewed international scientific journals or/and publications/presentations in conference minutes.

Section B1.1. is submitted in the **Greek language**, as a PDF file, and may extend to three (3) pages. Text exceeding said limits will not be taken into consideration during evaluation.

Section B1.2. Statement of incentives for preparing a thesis (maximum length: 2 pages)

Section B1.2. includes a **letter of incentives** in which the PhDC should describe his/her research interests and incentives/expectations regarding the preparation of a doctoral thesis on the subject in question (posting a PDF file on the platform). The letter of incentives shall avoid mention of the PhDC's financial situation status.

Section B1.2. is submitted in the **Greek language**, as a PDF file, and may extend up to two (2) pages. Text exceeding said limits will not be taken into consideration during evaluation.

5.2.2. Section B2: Detailed presentation

Section B2. Detailed presentation of doctoral thesis subject (maximum length: 5 pages)

Indicatively, the detailed presentation of the doctoral thesis should describe: (a) the thesis scope, the objectives and the scientific originality, (b) an introduction to the subject's research field and state of the art description, (c) a description of research questions faced by the proposed subject and the long-term perspective, (d) the methodology/implementation plan, (e) the subject's impact on Science, Technology, Society and Arts (where applicable), (e) implementation time schedule.

Section B2 is submitted in the **Greek language** (unless there exists an approval by the General Assembly of Special Composition [GSES] of the PhDC's Department, for preparing their dissertation in another language), as a PDF file, and may extend up to five (5) pages. Text exceeding said limits will not be taken into consideration during evaluation. Bibliographic references are included in the 5-page limit.

Application submission is concluded by the PhDC

electronically in exclusive on H.F.R.I.'s internet portal

(https://hfri.grnet.gr/)

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The PhDC holds exclusive responsibility for the validity of data submitted to the on-line submission platform.

6. CHECKING AND EVALUATION

Application evaluation is implemented by an Evaluation Committee (EC) and independent experts, if deemed necessary, according to provisions of Article 5(6) of Law 4429/2016, as amended and in force.

6.1. Admissibility and eligibility check

Applications are checked as to the inclusiveness of all data and documents required, the observance of participation terms and limitations as well as other terms in this Call, as described in detail in Section 4. Irrespective of the fact that all Applications are checked as to their admissibility and eligibility prior to the evaluation of their content, if at any stage of the screening and evaluation process it is verified that an Application fails to meet any of the relevant criteria, it shall be excluded from the evaluation process.

6.2. Evaluation

To evaluate Applications and by decision of the H.F.R.I. Scientific Council, Evaluation Committees of acclaimed scientists are established and constituted. If deemed necessary and according to the judgment of each EC, a non-binding evaluation of one or more Applications may be requested from one or more independent experts. The final decision for the evaluation of each Applications shall be made by the EC.

Said experts, independent or Committee members, are included in the Register of Certified Evaluators of Article 27 of Law 4310/2014 (258/A) and hold qualifications related to the object of the Project to be evaluated. EC members and experts are nominated by the H.F.R.I. Scientific Council. If expert scientists required for a specific evaluation are not available or existing ones do not meet the needs of a specific evaluation, expert scientists from Greece or abroad not included in the Certified Evaluator Register may be appointed as Committee members or independent experts,

pursuant to the SC's decision, and all other provisions under Article 5(6 & 7) of Law 4429/2016 provided.

6.3. Partial approval possibility of scholarship duration

The Evaluation Committee, by its substantiated decision, may approve awarding a scholarship of lesser duration than the one requested.

6.4. Confidentiality

The whole process is governed by the rule of confidentiality. EC members and independent experts sign a confidentiality and non-conflict of interest declaration. All EC members and independent experts owe full confidentiality before, during and after the evaluation, as to the entire evaluation process.

6.5. Evaluation Process

The evaluation of Applications shall be conducted in one Phase by EC's and experts, if deemed necessary (as provisioned under Law 4429/2019), based on criteria listed in the following Table 2:

Table 2. *Evaluation criteria*

Evaluation criteria	Grade
1. PhDC Scientific profile	**0 – 60**
A. Degree grade	5 – 10 (to the nearest 2 decimal places)
B. Curriculum vitae Co-evaluated: • Degree titles • Relevance of degree titles with the doctoral thesis subject • Knowledge of foreign languages • Publications • Participation/Presentations in Conferences • Distinctions or/and previous scholarships • Research activity in the corresponding scientific field	0 – 35
C. Statement of incentives Evaluated are the motivation and research interest of the PhDC for preparing the doctoral thesis.	0 – 15

2. Doctoral Thesis Proposal	0 – 40
• Scientific quality	5
• Originality	10
• Methodology	5
• Implementation Time-schedule	10
• Anticipated impact	10

Applications will be marked according to the extent by which they satisfy separate criteria, as described above.

Grading is done on a scale of 0 – 100.

0-19. The Application cannot be evaluated due to inadequate or incomplete information.

20-39 Weak. The Application meets the criteria in part, while there are serious inherent difficulties.

40-59 Moderate. While the Application does meet the criteria in general, there are significant weaknesses.

60-79 Good. The Application does meet the criteria on a good level, but there are certain shortfalls.

80-89 Very Good. The Application does meet the criteria on a very good level, but there is a small number of shortfalls.

90-100 Excellent. The Application meets all relevant aspects of the criteria successfully. Any shortfalls are minor and are described as of secondary importance.

The minimum total score acceptable for Application funding eligibility is 70 units.

Applications are ranked in descending order according to the total grading score. In case of a score tie, the Application of the candidate who has obtained the highest score in the individual criterion "PhDC Scientific profile" shall precede.

7. EVALUATION RESULTS

Following evaluation completion, PhDCs are notified of results by a personalized report, which shall include the grading marks received by the Application and the evaluation report drafted by the Evaluation Committee.

PhDCs have the right to lodge a **substantiated objection on decision legality grounds** within a deadline of ten (10) days from the notification of evaluation results.

Objections are judged by three-member committees, to an exclusive deadline of ten (10) days (Article 5(8) of Law 4429/2016). The Objections Committee decision is forwarded to the H.F.R.I. Director and the objecting party.

Following the evaluation of Applications, the H.F.R.I. Director issues the funding decision (list of Applications to be funded), according to the available budget. Said decision is an enforceable administrative act and is subject to petitions for annulment filed with the Administrative Court of Appeals.

Once the Applications to be funded are posted, potential beneficiary PhDCs receive a letter via email, whereby they are invited to submit necessary supporting documents to H.F.R.I., so that the Funding Approval Decision may be issued.

The PhDC accepts that messages sent via email and particularly to the email address he/she had provided when submitting the application online are considered notifications and signal the initiation of all legal processes and deadlines.

8. PUBLICITY

The Call and the Implementation guide to this Call will be posted on the websites of H.F.R.I. (www.elidek.gr) and G.S.R.T. (www.gsrt.gr).

9. COMMUNICATION - INFORMATION

Detailed information and briefing on this Call will be provided by the H.F.R.I. Department of Research Projects via email: researchdepartment@elidek.gr and telephone numbers 210-6412410, 210-6412420.

The Director of H.F.R.I.

Dr. Nektarios Nasikas

ANNEX: Scientific Areas, Scientific fields and subfields*

SA1. Physical Sciences

1.1. Physical Sciences

- 1.1.1. Acoustics
- 1.1.2. Atomic Physics
- 1.1.3. Molecular and chemical physics
- 1.1.4. Condensed matter physics
- 1.1.5. Nanosciences and nanotechnology
- 1.1.6. Fluids and plasma physics
- 1.1.7. Nuclear physics
- 1.1.8. Optics
- 1.1.9. Quantum optics
- 1.1.10. Laser Physics
- 1.1.11. Particles and field Physics

1.2. Chemical Sciences

- 1.2.1 Analytical chemistry
- 1.2.2 Applied and industrial chemistry
- 1.2.3 Colloid chemistry
- 1.2.4 Inorganic and nuclear chemistry
- 1.2.5 Organic chemistry
- 1.2.6 Physical chemistry
- 1.2.7 Electrochemistry
- 1.2.8 Molecular architecture
- 1.2.9 Chemical theory

1.3. Material sciences

- 1.3.1 Material synthesis
- 1.3.2 Structure-Property relation
- 1.3.3 Functional and Advanced materials
- 1.3.4 2D Materials
- 1.3.5 Materials properties (e.g. thermal, electrical, mechanical)
- 1.3.6 Polymer science
- 1.3.7 Composite materials

1.4. Earth and related environmental sciences

- 1.4.1 Climatology
- 1.4.2 Geochemistry and geophysics
- 1.4.3 Geology
- 1.4.4 Hydrology
- 1.4.5 Atmospheric sciences

* Scientific fields and subfields are indicative and there may be differentiations in the online submission platform.

1.4.6 Mineralogy
1.4.7 Marine sciences
1.4.8 Paleontology
1.4.9 Physical geography
1.4.10 Water resources

1.5. Universe Sciences

1.5.1 Astronomy
1.5.2 Astro-physics/chemistry/biology
1.5.3 Solar system
1.5.4 Stellar
1.5.5 Galactic and extragalactic astronomy
1.5.6 Planetary systems
1.5.7 Cosmology
1.5.8 Space science
1.5.9 Instrumentation

1.6. Other physical/natural sciences

SA2. Engineering Sciences & Technology

2.1 Civil, Surveying & Architectural engineering

2.1.1 Civil engineering
2.1.2 Architecture engineering
2.1.3 Construction engineering
2.1.4 Municipal and structural engineering
2.1.5 Transport engineering
2.1.6 Structural Engineering
2.1.7 Other

2.2 Electrical, electronic & communication engineering

2.2.1 Electrical and electronic engineering
2.2.2 Optical and systems engineering
2.2.3 Communication engineering and systems
2.2.4 Telecommunications
2.2.5 Computer hardware and architecture
2.2.6 Robotics and automatic control
2.2.7 Automation and control systems
2.2.8 Other

2.3 Mechanical engineering

- 2.3.1 Applied mechanics
- 2.3.2 Thermodynamics and thermal engineering
- 2.3.3 Fluid mechanics and turbomachinery
- 2.3.4 Aerospace engineering (aeronautics & astronautical engineering)
- 2.3.5 Manufacturing engineering and machine design
- 2.3.6 Automotive engineering
- 2.3.7 Naval engineering
- 2.3.8 Nuclear related engineering
- 2.3.9 Other

2.4 Environmental engineering & biotechnology

- 2.4.1 Environmental engineering
- 2.4.2 Ocean and coastal engineering
- 2.4.3 Other environmental engineering
- 2.4.4 Environmental biotechnology
- 2.4.5 Bioremediation
- 2.4.6 Bioprocessing technologies, biocatalysis
- 2.4.7 Bioproducts, biomaterials, biofuels etc.
- 2.4.8 Bio-derived novel materials
- 2.4.9 Other

2.5 Computer and telecommunications engineering

- 2.5.1 Information and intelligent systems engineering
- 2.5.2 Computer engineering
- 2.5.3 Computational methods in engineering
- 2.5.4 Other

2.6 Chemical and materials engineering

- 2.6.1 Chemical process engineering
- 2.6.2 Other chemical engineering
- 2.6.3 Petroleum engineering (fuels, oils)
- 2.6.4 Energy and fuels
- 2.6.5 Materials engineering
- 2.6.6 Mining and mineral processing
- 2.6.7 Nanotechnology
- 2.6.8 Catalysis
- 2.6.9 Energy production/processes (fuel cells, batteries, etc.)
- 2.6.10 Other

2.7 Medical engineering

- 2.7.1 Medical engineering
- 2.7.2 Medical laboratory technology
- 2.7.3 Biomedical engineering
- 2.7.4 Other

2.8 Other engineering sciences and technology (e.g. security)

SA3. Life Sciences

3.1 Molecular and Structural Biology, Biochemistry and Molecular biophysics

- 3.1.1 Molecular synthesis, modification, mechanisms and interaction
- 3.1.2 Biochemistry
- 3.1.3 Molecular Biophysics
- 3.1.4 Structural Biology
- 3.1.5 Metabolism
- 3.1.6 Signalling pathways

3.2 Genetics, 'Omics', Bioinformatics and System Biology

- 3.2.1 Molecular and population genetics
- 3.2.2 Quantitative genetics
- 3.2.3 Genomics
- 3.2.4 Metagenomics
- 3.2.5 Transcriptomics
- 3.2.6 Proteomics
- 3.2.7 Metabolomics
- 3.2.8 Glycomics
- 3.2.9 Bioinformatics
- 3.2.10 Computational Biology
- 3.2.11 Biostatistics
- 3.2.12 System Biology
- 3.2.13 Genetic Epidemiology
- 3.2.14 Epigenetics

3.3 Cellular and Developmental Biology

- 3.3.1 Cell Biology
- 3.3.2 Cell Physiology
- 3.3.3 Signal transduction
- 3.3.4 Organogenesis
- 3.3.5 Developmental genetics
- 3.3.6 Pattern formation in plants and animals
- 3.3.7 Stem cell Biology

3.4 Physiology, Pathophysiology and Endocrinology

- 3.4.1 Organ physiology
- 3.4.2 Pathophysiology
- 3.4.3 Endocrinology
- 3.4.4 Metabolism
- 3.4.5 Ageing
- 3.4.6 Tumorigenesis
- 3.4.7 Cardiovascular disease
- 3.4.8 Metabolic syndrome

3.5 Neurosciences and Neural Disorders

- 3.5.1 Neural cell function and signaling
- 3.5.2 Neural bases of cognitive and behavioral processes
- 3.5.3 Neuroanatomy and neurophysiology
- 3.5.4 Neurochemistry and neuropharmacology
- 3.5.5 Neuroimaging
- 3.5.6 Systems neuroscience
- 3.5.7 Neurological and psychiatric disorders

3.6 Oncology and Cancer Research

- 3.6.1 Cancer biology
- 3.6.2 Cancer diagnosis research
- 3.6.3 Cancer treatment research

3.7 Immunity and Inflection

- 3.7.1 The immune system and related disorders
- 3.7.2 Biology of Infectious agents and infection
- 3.7.3 Biological bases of prevention and treatment of infectious diseases

3.8 Applied Medical Technologies, Diagnostics, Therapies and Public Health

- 3.8.1 Diagnostic tools
- 3.8.2 Diagnosis and treatment of disease
- 3.8.3 Epidemiology and public health
- 3.8.4 Pharmacology
- 3.8.5 Clinical medicine
- 3.8.6 Regenerative medicine
- 3.8.7 Medical ethics

3.9 Ecology, Evolution, Population and Environmental Biology

- 3.9.1 Evolutionary biology
- 3.9.2 Population, community and ecosystem ecology
- 3.9.3 Animal behavior
- 3.9.4 Biodiversity
- 3.9.5 Biogeography
- 3.9.6 Marine Biology
- 3.9.7 Eco-toxicology
- 3.9.8 Microbial ecology

3.10 Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering

- 3.10.1 Applied plant and animal sciences
- 3.10.2 Fishery
- 3.10.3 Forestry
- 3.10.4 Applied biotechnology
- 3.10.5 Environmental and marine biotechnology
- 3.10.6 Genetic engineering
- 3.10.7 Synthetic and chemical biology
- 3.10.8 Industrial biosciences
- 3.10.9 Applied Bioengineering

3.11 Other Life Sciences

SA4. Agricultural Sciences – Food Science & Technology

4.1 Agriculture, forestry, and fisheries

- 4.1.1 Agriculture
- 4.1.2 Forestry
- 4.1.3 Fishery
- 4.1.4 Soil science
- 4.1.5 Horticulture
- 4.1.6 Viticulture
- 4.1.7 Agronomy
- 4.1.8 Plant breeding

4.2 Animal and Veterinary science

- 4.2.1 Animal breeding
- 4.2.2 Animal nutrition
- 4.2.3 Animal physiology
- 4.2.4 Other animal and veterinary sciences

4.3 Agricultural biotechnology

- 4.4.1 Agricultural biotechnology
- 4.4.2 Food biotechnology
- 4.4.3 Molecular and genomic plant breeding, market assisted selection
- 4.4.4 Biomass feedstock production technologies
- 4.4.5 Agricultural biotechnology and food biotechnology related ethics

4.4 Food sciences and Technology

- 4.5.1 Dairy science and technology
- 4.5.2 Food chemistry
- 4.5.3 Food engineering
- 4.5.4 Food microbiology
- 4.5.5 Food packaging
- 4.5.6 Food processing
- 4.5.7 Food technology
- 4.5.8 Molecular gastronomy
- 4.5.9 New product development
- 4.5.10 Quality control

4.5 Other agricultural sciences and Food sciences and Technology

SA5. Mathematics & Information Sciences

5.1 Mathematics

- 5.1.1 Logic and foundations
- 5.1.2 Algebra and number theory
- 5.1.3 Algebraic and complex geometry
- 5.1.4 Geometry and topology
- 5.1.5 Lie groups, Lie algebras
- 5.1.6 Analysis
- 5.1.7 Operator algebras and functional analysis
- 5.1.8 ODE, PDE and dynamical systems
- 5.1.9 Mathematical physics
- 5.1.10 Probability and statistics
- 5.1.11 Discrete mathematics and combinatorics
- 5.1.12 Numerical analysis
- 5.1.13 Mathematical aspects of computer science
- 5.1.14 Scientific computing, computational science and symbolic computation
- 5.1.15 Control theory, optimization and mathematical finance
- 5.1.16 Application of mathematics in sciences, industry and society

5.2 Computer and information sciences

- 5.2.1 Computer architecture, pervasive computing, ubiquitous computing
- 5.2.2 Computer systems, parallel/distributed systems, sensor networks, embedded systems, cyber-physical systems
- 5.2.3 Software engineering, operating systems, computer languages
- 5.2.4 Theoretical computer science, complexity theory, formal methods, and quantum computing
- 5.2.5 Cryptology, security, privacy, quantum crypto
- 5.2.6 Algorithms, distributed, parallel and network algorithms, algorithmic game theory, computational geometry
- 5.2.7 Artificial intelligence, intelligent systems, multi agent systems
- 5.2.8 Computer graphics, computer vision, multimedia, computer games
- 5.2.9 Human computer interaction and interface, visualization, robotics
- 5.2.10 Web and information systems, database systems, information retrieval and digital libraries, data fusion
- 5.2.11 Machine learning and data processing
- 5.2.12 Natural language processing and signal processing (e.g. speech, image, video)
- 5.2.13 Scientific computing, computational methods, simulation and modelling tools
- 5.2.14 Bioinformatics, computational biology, systems biology, biocomputing and DNA and molecular computation

5.3 Other mathematics

5.4 Other Computer and information sciences

SA6. Social Sciences

6.1 Anthropology, Ethnology

- 6.1.1 Anthropology of gender
- 6.1.2 Anthropology of religion
- 6.1.3 Cultural anthropology
- 6.1.4 Economic anthropology
- 6.1.5 Medical anthropology
- 6.1.6 Political anthropology
- 6.1.7 Visual anthropology

6.2 Economics and Business

- 6.2.1 Economics
- 6.2.2 Finance
- 6.2.3 Management/Marketing
- 6.2.4 (Applications of) quantitative methods to economics and business
- 6.2.5 (Economy of) Sustainable growth/economic alternatives (circular economy, social and solidarity economy)

6.3 Educational Sciences

6.3.1. Life-long learning
6.3.2. New technologies in education
6.3.3. Non formal education/museum education
6.3.4. Politics of education
6.3.5. Sociology of education
6.3.6. Special education
6.3.7. Teaching and learning art and humanities
6.3.8. Teaching and learning natural sciences

6.4 Law, Organization Theory, Public Administration

6.4.1. Civil law
6.4.2. Commercial law
6.4.3. Comparative law
6.4.4. Constitutional law
6.4.5. Criminal law/Criminology
6.4.6. International law
6.4.7. Philosophy/History of law
6.4.8. Public administration law

6.5 Media and Communications

6.5.1. Computational media studies
6.5.2. Cultural media studies
6.5.3. Journalism
6.5.4. Semiotics
6.5.5. Visual communication
6.5.6. Visual semiotics

6.6 Political Science

6.6.1. Comparative politics
6.6.2. Contentious politics
6.6.3. Greek politics
6.6.4. International relations
6.6.5. Political sociology
6.6.6. Political theory

6.7 Psychology and Cognitive Sciences

6.7.1. Clinical/Counseling psychology
6.7.2. Cognitive psychology/Neurosciences
6.7.3. Critical psychology
6.7.4. Cross-cultural psychology
6.7.5. Developmental psychology
6.7.6. Educational/School psychology
6.7.7. Health psychology
6.7.8. Organizational/Occupational psychology
6.7.9. Political psychology
6.7.10. Social psychology

6.8 Social and Economic Geography

6.8.1. Applied economic geography
6.8.2. Critical geography
6.8.3. Cultural geography
6.8.4. Theoretical economic geography
6.8.5. Urban geography
6.8.6. Urban sociology

6.9 Sociology

6.9.1. Applied sociology
6.9.2. Community informatics/social network
6.9.3. Critical sociology
6.9.4. Cultural/leisure sociology
6.9.5. Demography
6.9.6. Educational sociology
6.9.7. Ethnographic sociology
6.9.8. Sociology of work
6.9.9. Sociology of youth
6.9.10. Visual/Cyber sociology

SA7. Humanities & Arts

7.1 History and archaeology

7.1.1 Classical archaeology
7.1.2 Byzantine archaeology
7.1.3 Archaeometry
7.1.4 Prehistory and protohistory
7.1.5 Ancient history
7.1.6 Medieval history
7.1.7 Early modern history, modern and contemporary history
7.1.8 Colonial and post-colonial history, global and transnational history, entangled histories, history of international relations
7.1.9 Social history, economic history
7.1.10 Oral history, public history
7.1.11 Institutional history, political history
7.1.12 Military history, war history
7.1.13 Gender history, history of ideas, intellectual history and history of sciences and techniques, cultural history, history of collective identities and memories
7.1.14 Historiography, theory and methods of history
7.1.15 Other

7.2 Languages and literature

7.2.1 General Language Studies
7.2.2 Specific languages
7.2.3 General literature studies
7.2.4 Literary theory
7.2.5 Specific literatures
7.2.6 Linguistics

7.3 Philosophy, ethics and religion

7.3.1 Philosophy, history and philosophy of science and technology
7.3.2 Philosophy of mind, epistemology and logic
7.3.3 Ethics (except ethics related to specific subfields)
7.3.4 Theology
7.3.5 Religious studies

7.4 Arts (arts, history of arts, performing arts, music)

7.4.1 Arts, art history
7.4.2 Architectural design
7.4.3 Performing arts studies (Musicology, Theater science, Dramaturgy)
7.4.4 Cultural studies
7.4.5 Studies on Film, Radio and Television

7.5 Other humanities

SA8. Environment & Energy

8.1 Climate change

- 8.1.1. Observations and remote sensing
- 8.1.2. Modelling and projections
- 8.1.3. Impact studies
- 8.1.4. Adaptation and mitigation strategies

8.2 Ecology

- 8.2.1. Molecular ecology
- 8.2.2. Organismal ecology
- 8.2.3. Population ecology
- 8.2.4. Community ecology
- 8.2.5. Human ecology

8.3 Meteorology

- 8.3.1. Weather forecasting
- 8.3.2. Experimental meteorology
- 8.3.3. Hydrometeorology
- 8.3.4. Agricultural meteorology
- 8.3.5. Environmental meteorology

8.4 Oceanography

- 8.4.1. Chemical oceanography
- 8.4.2. Marine biology – Ichthyology
- 8.4.3. Coastal morphodynamics and marine geology
- 8.4.4. Physical oceanography

8.5 Energy resources

- 8.5.1. Fossil and nuclear energy
- 8.5.2. Energy grids
- 8.5.3. End use efficiency
- 8.5.4. Policies and economics

8.6 Renewable energy resources and systems

- 8.6.1. Bioenergy
- 8.6.2. Geothermal energy
- 8.6.3. Hydraulic energy
- 8.6.4. Solar energy
- 8.6.5. Wind energy
- 8.6.6. Hydrogen and fuel cells
- 8.6.7. Wave and tidal energy
- 8.6.8. Hybrid systems

8.6.9. Energy storage
8.6.10. Emerging technologies

8.7 Energy and the built environment

8.7.1. Sustainable building design
8.7.2. Sustainable urban living
8.7.3. Energy technologies for buildings
8.7.4. Smart and innovative materials
8.7.5. Smart buildings in smart cities

8.8 Sustainable mobility and logistics

8.8.1. Sustainable urban mobility
8.8.2. Freight transport and logistics

8.9 Circular economy

8.9.1. Bioeconomy
8.9.2. Sustainable industry and manufacturing systems
8.9.3. Waste and resource management
8.9.4. Water in the circular economy

SA9. Management & Economics of Innovations

9.1 Innovation Systems, Innovation Policy, Innovation Governance and Metrics

9.2 Innovation and Entrepreneurship

9.3 Innovation Strategy, Organization and Management at the Business, Industry and sectoral Level.

9.4 ICT enabled Innovation, Digitisation and Industrial Renewal.

9.5 Globalization of Innovation, global value chains, and catch-up processes.

9.6 Innovation and Finance