



## **Federal University of Rio Grande of Norte | UFRN Vice-Presidency of Graduate Studies | PPG**

### **CALL 01/2020 – PPG**

#### **SELECTION PROCESS – Ph.D Program for foreign students**

The Deanship of Graduate Program (PPG) at the Federal University of Rio Grande of Norte (UFRN), aiming to qualify its human resources and strengthen the international partnership through the *Program in Monitoring, Evaluation and Promotion of Excellence in Research and Graduate Studies* of UFRN, within the “Line III - Development of the academic and scientific excellence for Doctoral Programs,” announce the public call for Foreign Doctoral Students.

#### **I. PhD Program**

I.1 – Time for completion: 48 months;

I.2 – Concerning to the requirements: Students must have concluded the mandatory hours of core and non-core disciplines to be completed, as assigned by the student’s supervisor;

I.3 – On the Qualifying Examination: PhD students need to complete and pass the Qualifying Exam up to the 18<sup>th</sup> month of Graduate Studies Programs. As qualifying requirement students must provide an in-depth written document surveying the research area focused accompanied by a public oral presentation to be enquired by the Examination Committee. The written document should include detailed review of current literature, the experimental design and the methodology to be applied. Oral examination intended to provide the Examination Committee with evidence of your research preparedness and capabilities and allow the committee to give you useful feedback on your research direction. The presentation of preliminary results is expected and strongly recommended.



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I.4 – On the thesis: The thesis must be presented up to the 48<sup>th</sup> month of PhD Program. It should consist of an original contribution to the scientific field and must be written in English;

I.5 – On the dedication time: The PhD Program requires exclusive and full dedication;

I.6 – On the Portuguese language: During the first semester, applicants must attend Portuguese classes for foreign students aiming to be able to communicate for performing basic activities of daily living as needed.

### **II. OFFER OF ADMISSION**

II.1. Graduate Programs will provide up to five extra PhD positions specifically to foreign students, beyond those annually offered by each Program;

II.2. Participating Graduate Programs at the Current Call are:

- a-) Bioinformatic ([www.posgraduacao.ufrn.br/bioinfo](http://www.posgraduacao.ufrn.br/bioinfo))
- b-) Ecology ([www.posgraduacao.ufrn.br/ppgecol](http://www.posgraduacao.ufrn.br/ppgecol))
- c-) Languages Studies ([www.posgraduacao.ufrn.br/ppgel](http://www.posgraduacao.ufrn.br/ppgel))
- d-) Materials Science and Engineering ([www.posgraduacao.ufrn.br/ppgcem](http://www.posgraduacao.ufrn.br/ppgcem))
- e-) Physics ([www.posgraduacao.ufrn.br/ppgf](http://www.posgraduacao.ufrn.br/ppgf)) or (<http://ppgf.fisica.ufrn.br/>)
- f-) Psychobiology ([www.posgraduacao.ufrn.br/psicobiologia](http://www.posgraduacao.ufrn.br/psicobiologia))

II.3 Scholarships will be granted according the availability of funding from the Graduate Program elected by the candidate.



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### III. APPLICATION PERIOD

III.1 – Applications will be opened from August 30<sup>th</sup> 2020 to July 30<sup>th</sup> 2021, and must be sent to the e-mail [print@reitoria.ufrn.br](mailto:print@reitoria.ufrn.br).

#### III.2 – Application Procedures

Registration Form will be available electronically in the website of participant Programs (item II.2) and in the following addresses:

<http://www.ppg.ufrn.br/>

<http://www.posgraduacao.ufrn.br/print>

Applicants will be asked to fill the form with the subject *CallPhDForeignStudent* and return it by e-mail to the address [print@reitoria.ufrn.br](mailto:print@reitoria.ufrn.br).

For registering applicants must attach the following documents:

- a-) Curriculum in Research Gate (ORCID) Platform;
- b-) Link for the ORCID registration;
- c-) Copy of valid passport (PDF format);
- d-) Copy of the Undergraduate certificate or equivalent, issued by an institution authorized for that purpose (PDF format);
- e-) Copy of the master's degree, if applied (PDF format);
- f-) Recommendation letter in PDF format from the institution where the candidate has completed the last grades (undergraduate and master degree);
- g-) Doctoral thesis project.

### IV SPECIFICS REQUERIMENTS

Each Graduate Program involved in this call (item II.2.) additionally has specific requirements to be observed by candidates as listed below.



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*Applicants to Bioinformatic must fulfill the following requirements:*

- A. Pursue Undergraduate or Masters Degree in a university/institute ranked by international rankings (to be analyzed for validation by the Evaluation Committee)
- B. Present a certificate of proficiency in English by TOEFL (Institutional Testing Program (ITP) or Internet-Based Test (IBT)) or Certificate of Proficiency in English from the University of Cambridge
- C. Present the pre-proposal for PhD thesis, with up to 15 pages, with the scientific subject/topic suited to the PPg-Bioinfo research lines (Genomics, Systems Biology, and Development of products and process), including the indication of intended supervisor. The project should contain:
  - 1. Proposal Identification with Title, research line, name of the candidate, and intended advisor (suggestion)
  - 2. Abstract
  - 3. Description and Justification of the problem to be addressed
  - 4. Goals and objectives
  - 5. Summary of Methodology and research approaches
  - 6. Expected results and impacts
  - 7. References
  - 8. Schedule
  - 9. Estimated Budget (if any, report funding and the support agency)
  - 10. Keywords



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*Applicants to Physics must consider the Research Lines listed to each Area (ASTRONOMY; CONDENSED MATTER; COSMOLOGY; FIELD THEORY; QUANTUM INFORMATION; STATISTICAL PHYSICS AND COMPLEX SYSTEMS) as follows:*

<b>ASTRONOMY</b> <ul style="list-style-type: none"> <li>• Formation, structure and stellar evolution</li> <li>• Magnetism, Nucleosynthesis, Stellar Multiplicity</li> <li>• Magnetic Fields in Astrophysical Plasmas</li> <li>• Extragalactic Astrophysics</li> <li>• Gravitational Wave Astronomy</li> <li>• Instrumentation in Astronomy</li> </ul>	
<b>CONDENSED MATTER (THEORETICAL)</b> <ul style="list-style-type: none"> <li>• Quasiperiodic Systems</li> <li>• Quantum Magnetism</li> <li>• Photonic and Magnonic Crystals</li> <li>• Many Bodies Theory</li> <li>• Nanostructured Systems</li> </ul>	<b>CONDENSED MATTER (EXPERIMENTAL)</b> <ul style="list-style-type: none"> <li>• Optical Spectroscopy</li> <li>• Magnetism and magnetic materials</li> <li>• Nanostructured Materials</li> <li>• Quasicrystals</li> <li>• Semiconductors</li> <li>• Superconductivity</li> <li>• Scientific Instrumentation</li> </ul>
<b>COSMOLOGY</b> <ul style="list-style-type: none"> <li>• Alternative Theories of Gravitation</li> <li>• Dark Energy</li> <li>• Large Scale Structures</li> <li>• Gravitational Waves</li> <li>• Observational Tests of cosmological models</li> <li>• Particle Physics and Astroparticles</li> </ul>	
<b>FIELD THEORY</b> <ul style="list-style-type: none"> <li>• String Theory and Quantum Gravitation</li> <li>• Low Power Systems</li> <li>• Statistical Theory of Fields</li> </ul>	
<b>QUANTUM INFORMATION</b> <ul style="list-style-type: none"> <li>• Quantum Correlations</li> <li>• Quantum Protocols For information Processing</li> <li>• Fundamentals of Quantum, Causality and Machine Learning</li> <li>• Experimental Implementations</li> </ul>	
<b>STATISTICAL PHYSICS AND COMPLEX SYSTEMS</b> <ul style="list-style-type: none"> <li>• Numerical Modeling of Physical and Biological Systems</li> <li>• Oil Physics</li> <li>• Disorderly Systems</li> <li>• Complex Networks</li> </ul>	



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Applicants to Psychobiology:

A. Have to submit the thesis project with up to 10 pages (except abstract, cover page and references) containing: title, abstract, introduction / justification, objective and hypotheses, summarized methodology, expected results, project schedule and references. The project must be presented in PDF format, A4 page, Times New Roman font size 12. Pages should follow the standard 2.54 cm on all margins. The text should have 1.5 cm spacing throughout the document. Lines and pages should be numbered continuously. The project theme must suit to one of the following Program's research lines:

- Behavioral analysis of animal cognition
- Evolutionary approaches to human behavior
- Animal communication and sensory ecology
- Social behavior and ecology
- Behavioral Endocrinology
- Psychobiology of cognitive processes
- Psychopharmacology
- Biological rhythms and behavior

B. Project evaluation: the commission will evaluate the adequacy of the project to the technical and scientific capacity of the Program (adherence to the Program's research lines) and the technical quality of the text (structure, coherence, valid hypotheses and methodological adequacy). Will be approved in the project assessment those candidates that obtain a grade equal to or higher than 7.0 (seven). To be aware on the supervisors' research lines, visit the website:

<https://psicobiologia4.wixsite.com/psicobiologia>



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- C. It will be mandatory present the project and curriculum (lasting for 20 min), on a date to be scheduled within 30 days from the validation of the application. The candidate will be informed by e-mail registered in the application form at least 48 hours in advance. After presentation candidate will answer questions from the Evaluating Committee (lasting for 40 min). For approval candidates must obtain a grade equal to or higher than 7.0 (seven).
- D. If approved on the project presentation and questioning, applicants will have their curriculum evaluated and scored.
- E. The Evaluating Committee will assign each candidate a Final Grade (FG) according to the following formula:  $FG = [(0.4 \times \text{project grade}) + (0.3 \times \text{project presentation grade}) + (0.3 \times \text{proportional grade of curriculum})]$ . Accordingly, FG has 40% of the project contents, 30% of the project presentation/questioning's grade, and 30% of the of candidates' curriculum equivalent grade.

#### **IV. SELECTION PROCESS**

IV.1. A Evaluating Committee will be assigned by each Program aiming to select foreign candidates to the PhD Program. Decision will be announced within 30 days after the candidate's registration.

IV.2. The selection process will be conducted through the following steps:

- IV.2.1 – Appraisal of the documentation submitted and the candidate's Curriculum;
- IV.2.2 - Evaluation of the thesis project presented using as criteria the originality, adequacy to the program's research lines, laboratory infrastructure for its implementation and guidance capacity;



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IV.2.3 - Technical Interview performed through video-conferencing tools previously scheduled by the Evaluating Committee;

IV.3 –substantiated Final Report delivered by the Evaluating Committee at the end of the selection process accepting or not the candidate.

IV.4. The result of the selection process will be announced in the program's website and communicated to the applicants by e-mail.

IV.5. After results announcement, approved candidates will have 180 days to be present for completion of registration procedures.

## **V. ENROLLMENT**

V.1. - For enrollment, the applicant must submit the original documents (scholar and private documents).

V2. – Candidates are responsible by the application with government agencies to require International Student Visa when needed.

V3. – The candidate is responsible for registering at the Federal Revenue Secretariat to request CPF (Code for Individual Registration); at Federal Police Office to request RNE (National Register for Foreigners) and for opening the bank account, if awarded with a scholarship.

Natal, August 30<sup>th</sup>, 2020

Prof. Rubens Maribondo do Nascimento  
Deanship of Graduate Programs – PPG/UFRN