CALL 02/2026 – 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), in accordance with the UFRN Internationalization Plan (Resolution nº 052/2018 – CONSEPE/UFRN) and its Internationalization Policy (Resolution nº 189/2017 – CONSEPE/UFRN), aiming to qualify human resources and strengthen the international partnership, announces the call for Foreign Students for Ph.D. Programs.

I. Ph.D. Program

I.1 – Time for completion: 48 months.

I.2 – Students must complete mandatory hours and get approval in core and non- core disciplines, as assigned by the student's supervisor.

I.3 – On the Qualifying Examination: Ph.D. students must to complete and get approval in the Qualifying Exam up to the 18th month of Graduate Studies Programs. As a 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 a detailed review of the current literature, the experimental design and the methodology to be applied. Oral examination is intended to provide the Examination Committee with evidence of your research understanding 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.

I.4 – On the thesis: The thesis must be presented up to the 48th month of Ph.D. 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 Ph.D. Program requires exclusive and full dedication.

I.6 – On the Portuguese language: During the first semester, applicants are recommended to attend Portuguese classes for international students held by the university aiming to provide them the ability to communicate and performing basic activities of daily living as needed.

I.7 – Students might have the option to attend the first classes in English, according to the calendar and planning the Program in which they were admitted.

II. OFFER OF ADMISSION

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

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

1. Bioinformatic (https://posgraduacao.ufrn.br/PPGBIONF)
2. Computer Science (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=73)
3. Ecology (https://sigaa.ufrn.br/sigaa/public/programa/apresentacao.jsf?lc=pt_BRCid=4846)
4. Languages Studies (https://posgraduacao.ufrn.br/ppgel)
5. Materials Science and Engineering (https://posgraduacao.ufrn.br/ppgcem)
6. Neuroscience (https://posgraduacao.ufrn.br/5207)
7. Nursing (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=412)
8. Physics (https://ppgf.fisica.ufrn.br/)
9. Psicology (https://posgraduacao.ufrn.br/ppgpsi)
10. Psychobiology (https://sigaa.ufrn.br/sigaa/public/programa/apresentacao.jsf?lc=pt_BRCid=367)
11. Energy and Petroleum (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=32914)

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

II.4 – For enrolment in additional Graduate Programs not listed above, please see Appendix 2.

III. APPLICATION PERIOD

III.1 – Applications will be open from March 1st, 2026 to March 31st, 2027 and must be sent to the e-mail print@ppg.ufrn.br.

III.2 – Application Procedures:

III.2.1 – Registration Form will be available electronically in the website of participant Programs (item II.2) and in the follow address: http://www.ppg.ufrn.br/

III.2.2 – General Application Form is available attached at the end of this CALL 02/2026 – Ph.D. Program for international students (Appendix 1).

III.2.3 – Applicants will be asked to fill the form with the subject CallPhDForeignStudent and return it by e-mail to the address print@ppg.ufrn.br.

III.2.4 – For registering applicants must attach the following documents:

a) Registration form filled out completely in PDF format (Appendix 1);
b) Curriculum in Research Gate (ORCiD) Platform (PDF format);
c) Link for the ORCID registration (PDF format);
d) Copy of valid passport (PDF format);
e) Copy of the Undergraduate certificate or equivalent, issued by an institution authorized for that purpose (PDF format);
f) Copy of the master's degree, if applied (PDF format);
g) Recommendation letter in PDF format from the institution where the candidate has completed the last grades (undergraduate and master degree);
h) Doctoral thesis proposal (PDF format).

IV. SPECIFICS REQUIREMENTS

Candidates must observe specific requirements related to the Graduate Program (item II.2.) they are applying to, as listed in the annexes to this call.

V. SELECTION PROCESS

V.1 – An evaluating Committee will be assigned by each Program aiming to select foreign candidates for the Ph.D. Program. The decision will be announced within 30 days after the candidate’s registration.

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

V.2.1 – Appraisal of the documentation submitted and the candidate's Curriculum;

V.2.2 – Evaluation of the thesis project presented using as criteria the originality, and adequacy to the program's research lines, laboratory infrastructure for its implementation and guidance capacity;

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

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

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

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

VI. ENROLLMENT

VI.1 – The applicant must submit the original documents (academic and private documents) for enrollment.

VI.2 – Candidates are responsible for the application with government agencies to require International Student Visa when needed.

VI.3 – 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.

VI.4 – This Call is valid from the date of its publication and replaces any call previously published.

Natal, February 10th, 2026

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

APPENDIX 1

CALL 02/2026 - PPG - SELECTION PROCESS - Ph.D. PROGRAM FOR FOREIGN STUDENTS' REGISTRATION FORM

PERSONAL INFORMATION		
First name:	Middle name:	Last name:
Date of birth (month, day, year):		
City of birth:	Country of birth:	
Passport number:		
E-mail:		
Mother's full name:		

INFORMATION TO THE Ph.D AT UFRN	
Program (Please see the Call 02/2026- PPG):	
Research line (choose one line listed in the Call, if any):	
Did you contact a supervisor? (Yes or no):	
Supervisor:	E-mail:

EDUCATIONAL INFORMATION - MASTER DEGREE	
Course:	
Title of the dissertation:	
Supervisor:	E-mail:
Period of the course (from month, years to month, year):	
University:	
City and Country:	

EDUCATIONAL INFORMATION - UNDERGRADUATE DEGREE
Course:
Period of the course (from month, years to month, year):
University:
City and Country:

SEND THIS FORM AND THE DOCUMENTS REQUIRED TO print@ppg.ufrn.br WITH THE SUBJECT

CallPhDForeignStudent

APPENDIX 2

Applicants to Bioinformatic must fulfill the following requirements:

A. Pursue an Undergraduate or Master's 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 Ph.D. 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

APPENDIX 3

Applicants to Computer Science must fulfill the following requirements:

A. Pursue an Undergraduate or Master's Degree (desirable) at an internationally graded university/institute (to be analyzed/validated by the Evaluation Committee)

B. Present a pre-proposal for Ph.D. thesis, with up to 10 pages, with the scientific subject/topic suited to one or more research lines of PPgSC (see table below). The project must contain:

1. Proposal Identification: title, research line, candidate's name and research area.
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. Motivation for pursuing a PhD in Computer Science.
8. References.

Computational Intelligence and Visual Computing • Artificial Intelligence • Computer Vision • Image Processing • Machine Learning • Metaheuristics • Optimization
Computing Foundations • Non-classical Logic • Uncertainty modeling • Formal languages and Models of Computation
Integrated and Distributed Systems • Cloud-to-Things continuum:ubiquitous/Clud/Edge/fog Computing • Internet of Things • Middleware • 5%G networks • Software-defined networks (SND) and network function virtualization (NFV) • Smart city application • Embedded System Design • Reconfigurable Architectures • Multiprocessor System on Chip and Network on Chip
Programming Languages and Formal Methods • Graph Query languages • Program Synthesis • Domain-Specific Languages • Parsing Techniques • Software Energy Efficiency
Software Engineering • Computer-Human Interaction • Experimental Software Engineering • Requirements Engineering • Software Analytics • Software Architecture • Software testing

APPENDIX 4

Applicants to Ecology Program must fulfill the following requirements:

A. Pursue an Undergraduate or Master's Degree in a university/institute ranked by international rankings (to be analyzed for validation by the Evaluation Committee) in Ecology, Biology, Environmental Engineering or in the field of Natural Sciences.

B. Present the pre-proposal for Ph.D. thesis, with up to 10 pages, with the scientific subject/topic suited to the Ecology Program and containing:

1. Proposal Identification with Title, research line, name of the candidate, and intended advisor (suggestion)
2. Abstract with keywords
3. Description and Justification of the problem to be addressed
4. Goals and objectives
5. Hypothesis
6. Summary of Methodology and research approaches
7. Expected results and impacts
8. References
9. Schedule
10. Estimated Budget (if any, report funding and the support agency)

C. The Committee will evaluate the technical and scientific suitability of the proposal to the capacity of the Program and the technical quality of the text (structure, coherence, research problem and methodological adequacy). The candidates will be approved in the project evaluation if they obtain grade equal to or higher than 7.0 (seven).

D. The presentation of the project and the curriculum vitae (20 min) and enquiry by the Evaluation Committee (30 min) are mandatory. The date will be scheduled by the Coordination of the Ecology Program and informed with at least 48 hours in advance by the email registered in the application form. Approval requires a grade equal to or higher than 7.0.

E. If the presentation and the project questioning are approved, the candidates will have their curriculum vitae evaluated and graded.

F. The Evaluating Committee will assign each candidate a Final Grade (FG) according to the following formula: FG = [(0.4 × project grade) + (0.3 × project presentation grade) + (0.3 × proportional grade of curriculum)].

APPENDIX 5

Applicants for the Energy and Petroleum program must fulfill the following requirements:

A. Applicants must be pursuing an undergraduate degree at a university or institute ranked in international rankings (to be validated by the Evaluation Committee).
B. Submit a dissertation pre-proposal of up to 15 pages, with a scientific subject/topic aligned with the research lines of the Graduate Program in Energy and Petroleum (PPgEP) (Energy Engineering and Automation, Environment and Energy, Petroleum and Natural Gas Reservoir Engineering, and Applied Physics for Oil and Natural Gas Exploration and Production), including the indication of the intended supervisor. The pre-proposal may be submitted in English, Spanish, or Portuguese.
    a. The project must include:
        i. **Proposal identification**: title, research line, candidate's name, and intended advisor (suggested)
        ii. Abstract
        iii. Description and Justification of the problem to be addressed
        iv. Goals and objectives
        v. Summary of methodology and research approaches
        vi. Expected results and impacts
        vii. References and schedule
        viii. Estimated Budget (if applicable, report the funding and supporting agency)
        ix. Keywords
C. The Committee will evaluate the technical and scientific suitability of the proposal in relation to the Program's capacity and the technical quality of the text (structure, coherence, clarity of the research problem, and methodological adequacy). Candidates will be approved in the project evaluation if they obtain a grade equal to or higher than 7.0 (seven) on a scale ranging from 0 (minimum) to 10 (maximum).
D. Candidates must deliver a presentation of the project and curriculum vitae (20 minutes) on a date scheduled within 30 days of application validation. Notification will be sent to the email address provided in the application form at least 48 hours in advance. Following the presentation, candidates will be examined by the Evaluation Committee (40 minutes). Approval requires a minimum score of 7.0 (from 0 to 10).
E. Academic Transcript: Candidates must submit an official academic transcript from their undergraduate studies (and graduate studies if applicable). The transcript must include a complete list of courses taken, corresponding grades, and the institution's grading scale. If the document is not issued in English, Spanish or Portuguese, an official translation must also be provided. For evaluation purposes, the Academic Transcript grades will be converted to a scale ranging from 0 (minimum) to 10 (maximum).
F. The Evaluation Committee will assign each candidate a Final Grade (FG) according to the following formula: FG = [0.4 × (project grade)] + [0.1 × (academic transcript grade)] + [0.3 × (proportional curriculum vitae grade)]+ [(0.2 × project presentation grade)]. The evaluation scale will range from 0 (minimum) to 10 (maximum).

APPENDIX 6

Applicants to the Graduate Program in Neuroscience (PGNeuro/UFRN)

Selection Process and Criteria

A. Research Project: The candidate is required to submit a comprehensive research project with a maximum length of 10 pages, excluding the abstract, title page, and reference list. The document must include a formal title, abstract, a detailed introduction providing scientific justification, clearly defined objectives, a summarized methodology, expected results, a project timetable, and references. Adherence to strict formatting is mandatory: the project must be presented in PDF format on A4 paper, utilizing 12-point Times New Roman font with 1.5 cm line spacing throughout the entire document. Additionally, both lines and pages must be continuously numbered for clarity. The research topic must align with one of the Program's Research Lines https://neuro.ufrn.br/institute/aboutus

B. Project Evaluation: During the evaluation phase, the selection committee assesses the project's adequacy regarding the technical and scientific capacity of the Program, ensuring adherence to the established lines of research. The review focuses on the technical quality of the text, specifically examining its structure, internal coherence, the clarity of the research problem, and the suitability of the proposed methodology. To successfully pass this stage of the evaluation, candidates must achieve a grade equal to or higher than 7.0. Applicants are encouraged to consult the official institutional website to review the specific research interests and expertise of the available supervisors before finalizing their proposal.

C. Oral Presentation: A mandatory oral presentation covering both the research project and the candidate's curriculum vitae is required within 30 days of the application's validation by the Graduate Program. The candidate will receive notification of the scheduled date via their registered email address with at least 48 hours of advance notice. The session is structured as a 20-minute presentation followed by a 40-minute period during which the candidate will answer questions from the selection committee. For approval, a grade of 7.0 or higher is necessary.

D. Curriculum Vitae Assessment: Once the candidate has successfully passed the project evaluation and the subsequent questioning session, the committee proceeds to the formal grading of the curriculum vitae. This stage involves a detailed analysis of the candidate's academic history and research experience, and contributions to the field of neuroscience. The curriculum grade serves as a quantitative measure of the candidate's previous scientific output and preparation for doctoral-level research.

E. Final Grade Calculation: The selection committee determines the Final Grade (FG) for each candidate by applying a weighted formula that balances the different components of the selection process. The calculation is defined as: *FG = (0.4 x project grade) + (0.3 x presentation grade) + (0.3 x curriculum grade)*

This formula ensures that the written project content constitutes 40% of the total score, while the oral defense and the curriculum vitae each represent 30% of the final assessment.

APPENDIX 7

Applicants to Graduate Program in Nursing:

A. Applicants must pursue undergraduate and master's degree in nursing (to be analyzed for validation by the Evaluation Committee)

B. The candidate must submit the thesis project with up to 10 pages (except for the abstract, the title page and references) containing: the title, abstract, introduction/justification, objectives, summarized method, expected results, timetable of the project and references. The project must be presented in PDF format, page A4, source Times New Roman, size 12. The text must have a spacing of 1.5 cm throughout the document. The lines and pages must be continuously numbered. The project must include one of research lines below:

a. Technological development in health and nursing
b. Nursing in health surveillance

C. Evaluation of the project: the EC will evaluate the adequacy of the project to the technical and scientific capacity of the Program (adherence to the Program's lines of supervision) and the technical quality of the text (structure, coherence, research problem and methodological adequacy). To the approval candidates must obtain a grade equal to or higher than 7.0 (seven). See supervisors research area at https://sigaa.ufrn.br/sigaa/public/programa/equipe.jsf?lc=en_US&id=412

D. The presentation of the project and the curriculum vitae (20 min) is mandatory, on a date to be scheduled in the timeframe of 30 days from the validation of application. The candidate will be informed by the email registered in the application form, with at least 48 hours in advance. After the presentation, the candidate will answer the questions of the Evaluation Committee (up to 20 min). To the approval candidates must reach a grade equal/higher than 7.0 (seven).

E. If the presentation and the project questioning are approved, the candidates will have their curriculum vitae evaluated and graded.

F. The Evaluation Committee will attribute a Final Grade (FG) to each candidate according to the following formula: FG = [(0.4 × project grade) + (0.3 × grade of project's presentation) + (0.3 × grade proportional to the curriculum vitae)]. Thus, the FG has 40% of the project's content, 30% of the grade of presentation/questioning of the project, and 30% of the grade equivalent to the candidates' curriculum vitae.

APPENDIX 8

Applicants to Physics must consider the Research Lines listed to each Area as follows:

<table>
<tr><td colspan="2">ASTRONOMY
• Formation, structure and stellar evolution
• Magnetism, Nucleosynthesis, Stellar Multiplicity
• Magnetic Fields in Astrophysical Plasmas
• Extragalactic Astrophysics
• Gravitational Wave Astronomy
• Instrumentation in Astronomy</td></tr>
<tr><td>CONDENSED MATTER (THEORETICAL)
• Quasiperiodic Systems
• Quantum Magnetism
• Photonic and Magnonic Crystals
• Many Bodies Theory
• Nanostructured Systems</td><td>CONDENSED MATTER (EXPERIMENTAL)
• Optical Spectroscopy
• Magnetism and magnetic materials
• Nanostructured Materials
• Quasicryriais
• Semiconductors
• Superconductivity
• Scientific Instrumentation</td></tr>
<tr><td colspan="2">COSMOLOGY
• Alternative Theories of Gravitation
• Dark Energy
• Large Scale Structures
• Gravitational Waves
• Observational Tests of cosmological models
• Particle Physics and Astroparticles</td></tr>
<tr><td colspan="2">FIELD THEORY
• String Theory and Quantum Gravitation
• Low Power Systems
• Statistical Theory of Fields</td></tr>
<tr><td colspan="2">QUANTUM INFORMATION
• Quantum Correlations
• Quantum Protocols For information Processing
• Fundamentals of Quantum, Causality and Machine Learning
• Experimental Implementations</td></tr>
<tr><td colspan="2">STATISTICAL PHYSICS AND COMPLEX SYSTEMS
• Numerical Modeling of Physical and Biological Systems
• Oil Physics
• Disorderly Systems
• Complex Networks</td></tr>
</table>

APPENDIX 9

Applicants to Graduate Program in Psychology:

A. The candidate must submit the thesis project with up to 10 pages (except for the abstract, the title page and references) containing: the title, abstract, introduction/justification, objectives, summarized method, expected results, timetable of the project and references. The project must be presented in PDF format, page A4, source Times New Roman, size 12. The text must have a spacing of 1.5 cm throughout the document. The lines and pages must be continuously numbered. The topic of the project must correspond to one of the Program's following Lines of Supervision:

- Health, Labor and Development
- Psychology, Politics and Sociospacialities

B. Evaluation of the project: the committee will evaluate the adequacy of the project to the technical and scientific capacity of the Program (adherence to the Program's lines of supervision) and the technical quality of the text (structure, coherence, research problem and methodological adequacy). The candidates will be approved in the project evaluation if they obtain grade equal to or higher than 7.0 (seven). To know the lines of research of the supervisors, access the website: https://sigaa.ufrn.br/sigaa/public/programa/apresentacao.jsf?lc=pt_BRCid=64.

C. The presentation of the project and the curriculum vitae (20 min) is mandatory, on a date to be scheduled in the timeframe of 30 days from the validation of the Federal University of Rio Grande do Norte | UFRN Vice- Presidency of the Graduate Program | PPG application. The candidate will be informed by the email registered in the application form, with at least 48 hours in advance. After the presentation, the candidate will answer the questions of the Evaluation Committee (40 min). The candidates' approval relies on obtaining a grade equal to or higher than 7.0 (seven).

D. If the presentation and the project questioning are approved, the candidates will have their curriculum vitae evaluated and graded.

E. The Evaluation Committee will attribute a Final Grade (FG) to each candidate according to the following formula: FG = [(0.4 × project grade) + (0.3 × grade of project's presentation) + (0.3 × grade proportional to the curriculum vitae)]. Thus, the FG has 40% of the project's content, 30% of the grade of presentation/questioning of the project, and 30% of the grade equivalent to the candidates' curriculum vitae.

APPENDIX 10

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 1.5cm 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 for those candidates that obtain a grade equal to or higher than 7.0 (seven). To be aware of the supervisors' research lines, visit the website: https://sigaa.ufrn.br/sigaa/public/programa/apresentacao.jsf?lc=pt_BRCid=367.

C. It will be mandatory to 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 before. After the 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. Applicants will have their curriculum evaluated and scored if approved on the project presentation and questioning,

E. The Evaluating Committee will assign each candidate a Final Grade (FG) according to the following formula: FG = [(0.4 × project grade) + (0.3 × project presentation grade) + (0.3 × proportional grade of curriculum)]. Accordingly, FG has 40% of the project contents, 30% of the project presentation/questioning grade, and 30% of the of candidates' curriculum equivalent grade.

APPENDIX 11
OTHER GRADUATE PROGRAMS AVAILABLE FOR ACCESS UNDER REQUEST

Requests to the following programs must be submitted in accordance with this call for applications. The program coordinator shall be consulted by Office of Graduate Programs regarding the availability to host an international student, and the applicant will be contacted within fifteen (15) days.

HUMAN SCIENCE AND APPLIED SOCIAL SCIENCES

Accounting Sciences (https://posgraduacao.ufrn.br/9066)

Administration (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=74)

Economy (https://posgraduacao.ufrn.br/434)

Philosophy (https://posgraduacao.ufrn.br/364)

Geography (https://posgraduacao.ufrn.br/315)

History (https://posgraduacao.ufrn.br/435)

Information and Knowledge Management (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=1617)

Institutional Process Management (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=7513)

Management, Innovation and Sustainability (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=32958)

Management, Work, Education and Health (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=11656)

Quality Management in Health Services (https://sigaa.ufrn.br/sigaa/public/programa/apresentacao.jsf?lc=pt_BR&id=8084)

Social Sciences (https://posgraduacao.ufrn.br/360)

Social Anthropology (https://posgraduacao.ufrn.br/1442)

Law (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=404)

Public Management (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=5679&lc=pt_BR)

Tourism (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=4295)

BIOCIENCES

Biotechnology (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?lc=pt_BR&id=3014)

Development and Environment (PRODEMA) (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=423)

Molecular Biology and Biochemistry (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=31300)

Parasitic Biology (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=8085)

Structural and Functional Biology (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=7805)

Systematic and Evolution (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=5579)

EDUCATION

Education (https://ppged.ufrn.br/)

Innovation In Educational Technologies (https://posgraduacao.ufrn.br/10481)

Special Education (https://posgraduacao.ufrn.br/30546)

Teaching Science and Mathematics (https://posgraduacao.ufrn.br/9111)

Teaching Methodologies and Learning Processes (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=32980)

Teaching Natural Sciences and Mathematics (https://posgraduacao.ufrn.br/134)

EXACT AND EARTH SCIENCES

Aerospace Engineering (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=30029)

Applied Mathematics and Statistics (https://www.posgraduacao.ufrn.br/2595)

Chemical engineering (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=106)

Chemistry (https://posgraduacao.ufrn.br/85)

Climate Sciences (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=5211)

Demography (https://posgraduacao.ufrn.br/5570)

Civil and Environmental Engineering (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=31338)

Forestry Science (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=6381)

Production Engineering (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=105)

Geodynamics and Geophysics (https://posgraduacao.ufrn.br/325)

Systems and Computing (https://posgraduacao.ufrn.br/73)

Mechanical Engineering (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=104)

Mechatronics engineering (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=8086)

Textile engineering (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?lc=pt_BR&id=10480)

HEALTH SCIENCES

Collective Health (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=5670)

Dental Sciences (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=11354)

Families' Health in the Brazilian Northeast (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=6135)

Education, Work and Innovation in Medicine (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?lc=pt_BR&id=10129)

Health and Society (https://posgraduacao.ufrn.br/10489)

Health Sciences (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=66)

Health Education (https://sigaa.ufrn.br/sigaa/public/programa/apresentacao.jsf?lc=pt_BR&id=7267)

Nutrition (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=8191)

Management and Innovation in Health (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=10482)

Physical Education (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=5591)

Pharmaceutical Sciences (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=366)

Physiotherapy (https://posgraduacao.ufrn.br/4072)

Rehabilitation Science (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=10117)

Sciences Applied to Women's Health (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=30544)

Speech Therapy (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=10490)

LANGUAGES AND ARTS

Media Studies (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=4893&lc=pt_BR)

Music (https://posgraduacao.ufrn.br/7261)

Scenic Arts (https://posgraduacao.ufrn.br/4073)

Visual Arts (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=32957)

INSTITUTE OF PUBLIC POLICIES

Regional and Urban Studies (https://posgraduacao.ufrn.br/5254)

INSTITUTE OF CHEMISTRY

Chemistry (https://posgraduacao.ufrn.br/85)

TECNOLOGY

Architecture and Urbanism (https://posgraduacao.ufrn.br/102)

Architecture, Projects and Environment (https://posgraduacao.ufrn.br/6967)

Biotechnology (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?lc=pt_BR&id=3014)

Computational and Electric Engineering (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=103)

Information Technology (https://sigaa.ufrn.br/sigaa/public/programa/portal.jsf?id=7872)

Technological development and innovation in pharmaceuticals
(https://sigaa.ufrn.br/sigaa/public/programa/apresentacao.jsf?lc=pt_BR&id=4847)

Science, Technology and Innovation (https://posgraduacao.ufrn.br/9109)

PhD Position in Neuroscience – Diego Andrés Laplagne

Project title:
Global coordination of brain activity by the breathing cycle

Project description:
The project builds on our work on respiratory modulation of brain activity, investigating its underlying mechanisms and functional roles. The student will perform acute and chronic electrophysiological recordings in rats, combined with pharmacological, electrical and opto/chemogenetic manipulations as well as computational analysis of brain activity.

Candidate Profile:
Applicants should have a degree in Biology, Physics, Electrical Engineering, or related fields, and be motivated to conduct animal research and quantitative data analysis.

References:
Tort, A.B.L., Laplagne, D.A., Draguhn, A., Gonzalez, J., 2025. Global coordination of brain activity by the breathing cycle. Nature Reviews Neuroscience 26, 333–353. https://doi.org/10.1038/s41583-025-00920-7
Dias, A.L.A., Drieskens, D., Belo, J.A., Duarte, E.H., Laplagne, D.A., Tort, A.B.L., 2025. Breathing Modulates Network Activity in Frontal Brain Regions during Anxiety. J. Neurosci. 45, e1191242024. https://doi.org/10.1523/JNEUROSCI.1191-24.2024
Lockmann, A.L.V., Laplagne, D.A., Leao, R.N., Tort, A.B.L., 2016. A Respiration-Coupled Rhythm in the Rat Hippocampus Independent of Theta and Slow Oscillations. Journal of Neuroscience 36, 5338–5352. https://doi.org/10.1523/JNEUROSCI.3452-15.2016

PhD Position in Neuroscience – Martin Pablo Cammarota

Project Title: Real-Time Detection and Modulation of Hippocampal Ripples in Memory Reconsolidation and Extinction

We are inviting applications for a PhD position in neuroscience, focusing on real-time neural signal processing and closed-loop neuromodulation systems.
Hippocampal ripples (100-200 Hz) are fast oscillatory events strongly associated with memory consolidation and retrieval. This project aims to develop an innovative closed-loop system capable of detecting these ripples in real time using machine learning-based classification models and modulating neural activity via optogenetic stimulation.
The project uniquely combines engineering approaches with neurobiology and electrophysiology to investigate mechanisms of memory reconsolidation and extinction in rodent models. In addition to real-time ripple detection, the candidate will work with optogenetic and chemogenetic tools, as well as fiber photometry (calcium imaging), to probe and manipulate neural circuits underlying memory processes.
The successful candidate will work at the intersection of neuroscience, machine learning, and embedded systems. The project involves advanced signal acquisition, feature extraction, and supervised learning techniques applied to local field potentials (LFPs). Experimental work will include integrating the Cereplex Direct system (BlackRock) with a microcontroller, constructing labeled datasets, and training and evaluating classification models.
The best-performing model will be embedded into hardware for real-time implementation. The system will generate TTL signals to control LEDs coupled to optical fibers implanted in the hippocampus, enabling precise optogenetic modulation.

Expected outcomes include:

- Development and validation of a robust ripple detection model
- Implementation of a real-time closed-loop neuromodulation system
- Experimental insights into the role of hippocampal ripples in memory reconsolidation and extinction

This project offers a unique opportunity to contribute to cutting-edge research in systems neuroscience.

Eligibility and Candidate Profile:

- Candidates from Latin American countries where neuroscience research is still developing are particularly encouraged to apply
- A master’s degree is not required; outstanding candidates with a bachelor’s degree are welcome
- Background in biomedical engineering, electrical engineering, computer science, or related fields
- Experience or strong interest in signal processing and machine learning
- Programming skills (e.g., Python, MATLAB, or C/C++)
- Interest in experimental neuroscience and neurotechnology

PhD Position in Neuroscience – Kerstin Erika Schmidt

Research Line: Biodiversity-Driven Approaches to the Ancestral Organization of the Mammalian Visual Cortex in South American Mammals

Description: This research line investigates the evolutionary and functional principles underlying the organization of the mammalian visual cortex, with a focus on identifying ancestral features and the cortical network architecture that supports neural activity dynamics. The approach is based on cross-species comparisons, with an emphasis on South American mammals as key models to explore the diversity and evolutionary constraints of visual systems. It integrates analyses of orientation selectivity, cortical spatial organization, and interactions between local and long-range circuits, using multichannel electrophysiology, functional imaging, and quantitative neural signal analysis methods**.**

Desired profile: Interest in systems neuroscience and comparative approaches; basic knowledge of neurophysiology and cortical organization; interest in animal experimentation and neural data analysis. Experience with programming or statistics is desirable. Background in Biology, Biomedicine, Neuroscience, Biomedical Engineering, Physics, Computer Science, or related fields.