



**Selection of Graduate Program Notice  
PPGEB/FEELT/UFU No. 004/2021**

**Notice of opening of registrations and the selection process 2021/02 for admission to the  
Graduate Program in Biomedical Engineering**

The Notice of Notice was published on June 8, 2021, in section 3, page 219 of the Official Gazette.

Case 23117.034469/2021-73.

The coordinator of the Graduate Program in Biomedical Engineering - PPGEB, of the Faculty of Electrical Engineering (FEELT), of the Federal University of Uberlândia (UFU), in the use of its attributions and considering the delegation of competence granted to it through Ordinance R/UFU No. 784 of July 2, 2019 and also by the Statute and General Rules of the UFU and other relevant legislation, makes public the general conditions for the opening of registrations and the selection process for regular students and special student, for PPGEB, modalities Academic Master's course, Academic Doctorate Course, Special Student for admission in the second semester of 2021.

**1 - INITIAL PROVISIONS**

1.1. This selection process will be governed by this notice, by Resolutions 12/2008 and 06/2017 of the Research and Graduate Council, by Resolution No. 11/2012 of the University Council, by Ordinance R 134, by the Statute and General Rules of the Federal University of Uberlândia.

1.2. The Examining Committee of PPGEB will be responsible for the selection process of the Academic Master's Course, Academic Doctorate Course, Special Student.

1.3. Under current circumstances (COVID19), the process will be carried out entirely by internet access and communication tools. The activities will be carried out from the city of Uberlândia, MG, on the premises of UFU, Santa Mônica campus.

1.4. At the time of registration PPGEB will make available to the candidate the complete notice, information and instructions pertinent to the selection process in the secretariat and at [www.ppgeb.feelt.ufu.br](http://www.ppgeb.feelt.ufu.br) and <http://www.portalselecao.ufu.br>;

1.5. When registering for the event, the candidate:

- a) declares that he/she has read and understood all the terms and conditions of this Notice and that it accepts all the relevant rules to the event;
- b) undertakes to become aware of any corrections, supplementations, additive terms or notices that may be published at <http://www.portalselecao.ufu.br>, of which it may not claim ignorance;
- c) authorizes UFU, regardless of prior notice, to digitize and/or delete physical documents that may be produced due to their participation in the event, in compliance with the rules and procedures provided for in the relevant legislation.

1.6. The candidate or transsexual who wishes to attend by the social name will make such a request in the specific service request, made available by DIRPS at the e-mail <http://www.portalselecao.ufu.br>. Document's tab, Annex Specific Attendance Requirement.

1.6.1. The candidate must present documents proving the condition that motivates the request for service by social name, that is:



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1.6.1.1. Clear, individual, colorful current photograph, with white background that fits from head to shoulders, full face, without the use of sunglasses and headgear, such as: cap, hat, visor, hat and other similar objects;

1.6.1.2. Copy of the front and back of one of the official valid identification documents with photo.

1.6.2. The documents dealing with sub-item 1.6.1. must contain all the specifications mentioned, be readable for analysis, under penalty of being considered invalid for proof of service.

1.6.3. Requests that treat specific service items should be indicated on the application form in the appropriate fields.

1.6.4. UFU reserves the right to require, at any time, documents attesting to the condition that motivates the request for service by the declared social name.

1.7. It is the sole responsibility of the candidate to comply with the procedures and deadlines established in the rules that regulate the Selection Process of this Notice, as well as the verification of the documents required for registration and follow-up, through [http://www.portalselecao.ufu.br/de\\_eventuais\\_alteracoes\\_referentes\\_a\\_este\\_Processo\\_Seletivo](http://www.portalselecao.ufu.br/de_eventuais_alteracoes_referentes_a_este_Processo_Seletivo)

1.8. All candidates will be submitted to a single Selection Process.

1.9. The Selection Process will meet the following schedule:

	Activity	Date	Timetable	Local
1	Registration period	01 to 06/07/2021		<a href="https://www.portalselecao.ufu.br/">https://www.portalselecao.ufu.br/</a>
2	Payment of the registration fee	01 to 07/07/2021		<a href="https://www.portalselecao.ufu.br/">https://www.portalselecao.ufu.br/</a>
3	Application for exemption from the registration fee	01 to 02/07/2021		<a href="https://www.portalselecto.thefu.br/">https://www.portalselecto.thefu.br/</a>
4	Result of the application for exemption from the registration fee	06/07/2021	From 17h	<a href="https://www.portalselecao.ufu.br/">https://www.portalselecao.ufu.br/</a>
5	Deadline for the applicant not contemplated in the exemption from the registration fee to make the	07/07/2021		<a href="https://www.portalselecao.ufu.br/">https://www.portalselecao.ufu.br/</a>
6	Preliminary disclosure of the approval of registrations	13/07/2021	From 17h	<a href="https://www.portalselecao.ufu.br/">https://www.portalselecao.ufu.br/</a>
7	Period for appeal against the preliminary approval of registrations	14 and 15/07/2021		ppgeb@feelt.ufu.br
8	Result of the approval of registrations	19/07/2021	From 17h	<a href="https://www.portalselecao.ufu.br/">https://www.portalselecao.ufu.br/</a>
9	Single-step Evaluation Period - item 5.5.1.	20 to 21/07/2021		PPGEB
10	Disclosure of the preliminary result of the Selection Process	21/07/2021	From the 5:00 p.m.	<a href="https://www.portalselecao.ufu.br/">https://www.portalselecao.ufu.br/</a>
11	Appeal period against the preliminary outcome of the Selection Process	22 and 23/07/2021		ppgeb@feelt.ufu.br



12	Disclosure of the final result of The Process	26/07/2021	From Of 5:00 p.m.	<a href="https://www.portalselecao.ufu.br/">https://www.portalselecao.ufu.br/</a>
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1.10. All times mentioned in this Notice will comply with the official time of Brasilia / DF.

1.11. All information necessary for the candidate to participate in the Selection Process is available in this Notice. No additional information will be provided by telephone. If in doubt, send a message to the e-mail [ppgeb@feelt.ufu.br](mailto:ppgeb@feelt.ufu.br).

## 2 - NUMBER OF VACANCIES

2.1. The number of vacancies offered for admission in the second half of 2021 is:

Course	Wide Competition	Blacks, browns, indigenous People with disabilities	Total
Regular Students			
Master	8	2	11
Doctorate	5	1	7
Special Students			
Master	7	2	10
Doctorate	7	2	10

2.1.2. Foreign Candidates

2.1.2.1. A translation of this notice in English for wide dissemination will be made available on the PPGEB webpage.

2.1.2.2. Selection of vacancy for entry into the course without mandatory granting of a scholarship or any other benefit and/or assistance (accommodation, food, locomotion, assistance: medical, dental, psychological, etc.). The vacancy is only for the approved candidate, it does not include project members, family members and the like;

2.2. The distribution of vacancies by lines of research is described in Annex 1.

2.3. In the case of selection processes in which the candidate competes for vacancies in areas of concentration or lines of research, the same general proportional defined in Art. 5 of CONPEP Resolution 06/2017 will be adopted, seeking balance between areas or lines.

2.4. The PPGEB Collegiate will monitor and monitor affirmative actions.

2.5. Candidates who register in the modalities of quotas must have their registrations approved by the standing committee for the monitoring and supervision of affirmative actions, as provided for in Articles 10 and 11 of CONPEP Resolution No. 06/2017.

2.6. In any challenges requested by third parties to the registrations and appeals to the decisions of admission or inadmission of the quota (PPI – Blacks, Browns and Indigenous) will be met the following criteria:

- I - Interview with the components of the Collegiate Graduate Program;
- II - History of the self-declarations of the candidate interested in other events;
- III - Study of the family tree.

2.7. The black, brown, indigenous and disabled candidates will compete concomitantly with the vacancies reserved and the vacancies destined to the wide competition, according to their classification in the selection process. Black, brown, indigenous and disabled candidates classified within the number of vacancies offered for wide competition will not be computed for the purpose of filling the reserved vacancies.



2.8. In case of withdrawal of a black, brown, indigenous and disabled candidate approved in a reserved vacancy, the vacancy will be filled by the black, brown, indigenous and the disabled candidate subsequently classified.

2.9. In the event that there are no black, brown, indigenous and disabled candidates approved in sufficient numbers to occupy the reserved vacancies, the remaining vacancies will be reverted to the wide competition, being filled by the other approved candidates observed the classification order.

2.10. The person with disabilities is not obliged to register as such pursuant to Art. 4 § 2 of Law Number 13.146/2015.

2.11. At any time, the approved candidate with admission by quotas may be summoned by the Standing Committee for the monitoring and supervision of affirmative actions, in order to provide clarification on self-declaration, and may, in case of fraud, lose the vacancy in PPGEB and answer for acts in the Administrative and Criminal spheres.

### 3 - PREREQUISITES

3.1. The vacancies are intended for graduates of long-term undergraduate courses (full graduation) recognized by the Ministry of Education (MEC). The available vacancies are for the concentration area, subareas and for the PPGEB research lines.

3.2. Registration of short-term, sequential and similar graduates will not be accepted, and only senior technologists will be admitted.

3.4. All candidates approved and enrolled as regular students must present a certificate of proficiency in a foreign language, up to the 18th month, for master's degree, or until the 36th month, for the doctorate, after enrollment, or until the application for a qualification exam, which happens first.

3.4.1. For the master's degree a proficiency certificate in a foreign language will be required and for the doctorate two proficiency certificates will be required in two foreign languages.

3.4.1.1. For non-lusophone foreign candidates will also be required the certificate of proficiency in Portuguese language that must be submitted until the application for the MSc or PhD defence.

3.5. Certificates of proficiency in languages will be accepted according to RESOLUTION No. 2/2020, OF THE COORDINATION OF THE GRADUATE PROGRAM IN BIOMEDICAL ENGINEERING available at <http://www.ppgeb.feelt.ufu.br/pt-br/resolucoes-e-normas>.

3.6. The certificate of proficiency in Portuguese required in item 3.4.1.1. will be the CELPE - Certificate of Proficiency in Portuguese Language for Foreigners (Celpe-Bras) (<https://www.gov.br/inep/pt-br/areas-de-atuacao/avaliacao-e-exames-educacionais/celpe-bras>), with minimum evaluation: **intermediate**, or, PROFLIN - PROFICIENCY EXAM IN FOREIGN LANGUAGE, WRITING AND PORTUGUESE LANGUAGE FOR FOREIGNERS (<http://www.ileel.ufu.br/proflin/exame/pos/dashboard.php>), with minimum evaluation: **05 points**;

3.7. The official examinations will be accepted, considering the validity declared in them issued by the:

- a) PROFLIN-ILEEL-UFU
- b) Cambridge from the intermediate level
- c) Michigan
- d) TOEFL with a minimum of 500 points in the printed version or 230 in the electronic version.
- e) D.E.L.F/D.A.L.F. or other equivalent exams issued by French Universities.
- f) D.E.L.E. (Spanish Diploma as a Foreign Language) of the University of Salamanca

### 4 - REGISTRATIONS



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- 4.1. Registration in the Selection Process for entry into the PPGEb must be carried out exclusively at the e-mail address: (<http://www.portalselecao.ufu.br>);
- 4.2. When registering for the event, the candidate must read this Notice and make sure that all requirements required for participation in the Selection Process are met.
- 4.3. In order to register, the applicant must access, at [the https://www.portalselecao.ufu.br/](https://www.portalselecao.ufu.br/) address with an indication of the CPF number, the Online Registration System and strictly follow all the instructions contained therein, observing the following:
- 4.3.1. Fill out the online registration form with all the information requested at the e-mail address <https://www.portalselecao.ufu.br>.
- 4.3.1.1. The online registration form must be completed in full and with all attention, so that it contains accurate and true information, under penalty of refusal of registration, if any non-compliance with the foregoing is identified and proven.
- 4.3.2. Indicate the modality of vacancy for which you are requesting registration, attaching the self-declaration in the field "Annexes of Graduate School", when it fits (Annex 6 of this Notice);
- 4.4. The candidate must fill out at the time of registration the forms available in the registration link of the event so that there are accurate and true information, under penalty of cancellation of registration;
- 4.5. The candidate must indicate the modality for which he is requesting registration, attaching the self-declaration, when it fits (Annex 6 of this Notice)
- 4.6. At the time of registration the candidate must attach in the field "Post-graduation Annexes":
- 4.6.1. . Simple and readable copy of:
- a) Updated curriculum vitae, generated on the Lattes Platform - [cnpq.br](http://cnpq.br) - with copy of the supporting documents, in the same order described in Annex 3, item 1. The maximum size of 10 MBytes per file should be respected;
  - c) simple and legible copy of:
    - c.1) Diploma of graduation, certificate or certificate of completion of the undergraduate course issued by the competent body;
    - c.2) In case of non-completion of the course, statement issued by the home educational institution that by the day before enrollment in the program will have completed the course and officially graduated;
    - c.3) Civil record (birth or marriage certificate)
    - c.4) Identity document;
    - c.5) Proof of electoral discharge;
    - c.6) CPF: Individual Taxpayer Registry;
    - c.7) Reservist Certificate, is mandatory for men who are 18 years old;
    - c.8) School records;
    - c.9) For Doctorate: master's degree or certificate of completion of the master's course issued by the competent and historical body of the Doctorate;
    - c.10) Research Project, which must follow the model set out in Annex 2. The research line and advisor must be indicated in the project.

4.6.2 - The maximum size of 10 MBytes per file must be respected

4.7. The candidate who renders any false or inaccurate information when registering in the Selection Process or who does not meet all the conditions set forth in this Notice and other normative





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instruments will have his registration canceled and will have nullified all acts arising therefrom.

4.8. UFU will not be responsible for registration and/or documentation not received for technical reasons, including those associated with computers, communication failures, congestion of communication lines and any other technical reasons that make it impossible to transfer data for consolidation of the registration.

4.9. The candidate must access the e-mail address and <https://www.portalselecao.ufu.br> the result of the approval of the registration.

4.10. The amount of the registration fee will be R\$ 120.00 (one hundred and twenty reais, and the ticket must be generated in the system itself ([www.portalselecao.ufu.br](http://www.portalselecao.ufu.br)) at the end of the registration process, and the payment must be made between 01 and **07 July 2021**, in the banking network, EXCEPT for the candidates who requested the exemption from the payment of the registration fee and had their application deferred.

4.11. Proof of payment must be maintained with the applicant, as it may be requested by DIRPS.

4.12. The transfer of the amount paid as a registration fee to another person will not be allowed, as well as the transfer of the registration to a person other than the one who made it; in no case will the registration fee be refunded.

4.13. Conditional registrations will not be accepted via post office, fax, e-mail or off-time.

4.14. The exemption from the registration fee must be requested on July 1 and 2, 2021, with indication, in the application, of the Social Identification Number (NIS), assigned by CadÚnico. The candidate will only have his request for exemption confirmed if the NIS is validated by the CadÚnico Management Body by 30/06/2021.

4.14.1. The acceptance or Rejection of the application for Exemption will be available in the candidate's area upon insertion of user/password, on July 6, 2021, from 17h.

4.14.2. It will be up to the candidates to verify their situation in relation to the exemption of the registration fee and observe the Schedule of the Selection Process.

4.14.3. The applicant who has his application for exemption must make the payment of the fee due within the period stipulated in this Notice.

4.14.4. There will be no appeal against the rejection of the application for exemption from the registration fee.

4.14.5. The applicant who has his application for exemption rejected and who does not make the payment of the registration fee, in the form and within the period established in this Notice, will have his registration rejected.

4.14.6. Application waivers made outside the Waiver System and outside the application period will not be accepted.

4.15. The personal data provided must be the same as the data registered with the Internal Revenue Service, so as not to prevent the correspondence between the information. Before registering, the applicant must verify the correspondence of this personal information.

4.16. In registration, the applicant must provide a valid single email address, as well as valid landline or mobile phone number.

4.16.1. UFU may use the registered e-mail to send the applicant information related to the Selection Process.

4.16.2. UFU is not responsible for sending information to third parties arising from undue registration of e-mail and telephone by the applicant.

4.17. The candidate will electronically complete a socioeconomic questionnaire and the information provided will compose the candidate's database, and the candidate will be able to



responsible for the data reported and will be subject to the penalties of the law and any loss of opportunity due to inaccurate and untrue data.

4.18. The act of registration in the Selection Process regulated by this Notice obliges the candidate to comply with the rules contained therein and in the General Rules of the UFU, constituting express and full acceptance of all the rules pertinent to the Selection Process.

4.19. The applicant who wishes to correct incorrect registration data, except CPF, may do so at the <http://www.portalselecao.ufu.br> address through the Online Registration System, during the registration period, using the number of his CPF and his/her personal password.

4.20. It will not be possible to rectify the CPF number of the candidate and, after the registration period, no changes will be accepted in any of the data informed by the candidate.

4.21. There will not be, under any pretext, provisional, conditional or extemporaneous registration. After the registration period, no separate documentation will be received, under any circumstances.

4.22. All documents must be downloaded in DIRPS own system at the time of filling out the form.

4.23. There will not be, under any pretext, provisional, conditional or extemporaneous registration, as well as by e-mail. Under no circumstances will separate documentation be received.

## 5 - EVALUATION PROCESS: STEPS, CLASSIFICATION AND APPROVAL

5.1. The selection of the PPGEb candidate consists of two stages:

5.1.1. The first consists of the delivery of the required documentation, according to item 4.6;

5.1.2. The second consists of the analysis of this documentation by the Examining Committee, observing compliance with the requirements set out in the notice, including the receipt of all relevant documentation, in accordance with the set deadlines;

5.2. The selection process will be carried out by a committee specially designated for this purpose, presented in Annex 5 to this notice.

5.2.1. The committee will be composed of professors working at PPGEb, responsible for the entire selection process;

5.2.2. The selection committee will meet between **20 and 21 July 2021**, remotely, to assess the documentation and classification of candidates.

5.2.3. The selection committee will assign scores for each item contained in the selection process, according to the details presented in Annex 3, define the final results of classification and report to the Program Coordination, for approval by the Collegiate and dissemination of the result of the selection process.

5.3. Candidates will be ranked in descending order of scores.

5.4. Candidates who score minimum final scores of 5 (five) points or more will be classified.

5.4.1. In the event of a tie in the final score, the tiebreaker will be considered as a tiebreaker:

5.4.1.1. The best score in the Work Plan;

5.4.1.2. If the tie persists, the best average in the Academic Transcript. The list of selected candidates will be published as of July 26, 2021, on the website of the Postgraduate Program in Biomedical Engineering/UFU and DIRPS <https://www.portalselecao.ufu.br/>.

5.4.1.3. Persisting the tie, the best average in school history.

The list of selected candidates will be released from July 26, 2021, on the website of the Graduate Program in Biomedical Engineering /UFU and DIRPS <https://www.portalselecao.ufu.br/>.

5.5. Steps and procedures for the selection process:

5.5.1. The selection will be made in a single STEP, as below:



5.5.1.1. Research Project, according to the parameters of Annex 2 (Program and Bibliography in Annex 4).

5.5.1.2. Analysis of the "Curriculum Vitae" and school recordings:

5.5.1.2.1. The evaluation of the "Curriculum Vitae" will be according to the parameters of Annex 3, by comparative analysis of punctuation.

5.5.1.2.2. The evaluation will also consider the General Accumulated Average (MGA) of the Applicant's Undergraduate Course Scores.

## 6 – SPECIAL STUDENTS

6.1. Special students undergo the same obligations as regular students, with regard to the academic calendar and subject in which they will enroll and are not entitled to the dissertation or thesis guidance.

6.2. The number of special students will not exceed the percentage of 50% of the total number of regular students enrolled in the general and in each subject;

6.3. The special student will be admitted for a maximum of two consecutive semesters and will be entitled to renew his/her enrollment only if the sum of the credits already obtained from those, he intends to enroll does not exceed 50% of the credits necessary for the payment of the master's or doctorate curriculum;

6.4. The registration of a special student will be carried out according to the academic calendar of the UFU graduate program.

6.5. The vacancies offered to special students will be distributed as follows:

6.5.1. 10 vacancies will be allocated for master's degrees and 10 vacancies for doctorate, for students enrolled as regular students in other Graduate Programs recognized by CAPES. Candidates of this modality will be selected in order of application for registration registered in the Management System (SG) up to a maximum of 50% of the regular students enrolled in the discipline.

6.5.2. The activities, dates and times of the Selection Process of candidates to special students enrolled in other PPGs recognized by CAPES are as follows:

ACTIVITY	PERIOD
Registration	To be disclosed later <a href="http://www.ppgeb.feelt.ufu.br/pt-br">http://www.ppgeb.feelt.ufu.br/pt-br</a> and Secretariat of PPGEB
School Record Analysis	
Results	

6.5.3. The selection classification criteria, if there are a higher number of candidates in relation to the number of vacancies available, will be:

6.5.4 Classification of grades awarded by the instructor of the requested discipline;

6.5.5. Shorter time for completion of the Master or Doctorate course in the candidate's Origin Program.

6.5.6. For the Master's courses will be considered the cumulative general average of the undergraduate course of the candidate.

6.5.7. For the doctoral disciplines will be considered the average between the accumulated





general average of the undergraduate course and the accumulated general average of the master's course.

6.5.7.1. Average value of the final grades of the subjects attended, as a regular student of other PPGs. Only subjects with a 60% performance or higher should be considered in the average. Scale for conversion of concepts: A = 100%; B = 75%; C = 60%; D/E = 0%.

## 7 - RESOURCES

7.1. Appeals will be allowed as to:

7.1.1. Composition of the Examining Committees, within 02 (two) working days after the implementation of the event concerning them (disclosure of the Committees), having as initial the initial end the first working day following the date of the event to be appealed; the appeal should be brought by the e-mail [ppgeb@feelt.ufu.br](mailto:ppgeb@feelt.ufu.br).

7.1.2. Acceptance or rejection of registrations, within 02 (two) working days, after the realization of the event concerning them (disclosure of the acceptance or rejection of registrations), having as initial the initial end the first working day following the date of the event to be appealed; the appeal should be brought by the e-mail [ppgeb@feelt.ufu.br](mailto:ppgeb@feelt.ufu.br).

7.1.3. Preliminary result within 02 (two) working days after the event concerning them, having as initial the initial end the first working day following the date of the event to be appealed; the appeal should be brought by e-mail [ppgeb@feelt.ufu.br](mailto:ppgeb@feelt.ufu.br).

7.1.4. Final Result, within 02 (two) working days after the realization of the event concerning them (disclosure of the Final Result), with the initial term the first working day following the date of the event to be appealed; the appeal should be brought by e-mail [ppgeb@feelt.ufu.br](mailto:ppgeb@feelt.ufu.br).

7.2. Resources will not be accepted by other means.

7.3. The candidate must be objective and consistent in his/her claim.

7.4. Appeals and disputes that:

7.4.1. They have a generic character, not specifying the objective, nature and consistency of the contest;

7.4.2. Discomply with the respective instructions provided in this Notice;

7.4.3. Discomply with the Examining Committees considered by you or any of its members;

7.4.4. Be presented outside the deadlines specified in this Notice.

7.5. The candidate may appeal in three instances in successive degrees, i.e.: a) Appeals against the composition of the Examining Committee: first instance - PPGEB Collegiate; second instance - FEELT Council; third instance - CONPEP; b) Appeals against the decisions of the Examining Committees: first instance - Examining Committee; second instance - Collegiate PPGEB; third instance - Council of the Faculty of Electrical Engineering. For appeals in the second and third instances, the maximum periods of ten (10) calendar days after the disclosure of the assessment of the previous appeal shall be considered.

7.6. If the assessment of the appeals brought by the candidates alters the results of the stage for which the appeal was lodged, there may be a change in the admission or not of candidates to the next stage, as well as a change in the general classification order.

## 8 - COMPLEMENTARY INFORMATION

8.1. The registration of the candidate will imply the knowledge and tacit acceptance of the rules and conditions for the selection process contained in this notice and in the other rules relevant to



the matter.

8.3. The results will be published on the PPGEB website and DIRPS (<https://www.portalselecao.ufu.br/>).

8.5. No information will be provided by phone.

8.6. Applicants can obtain information on the selection in the e-mail and on the PPGEB website.

8.7. The Examining Committee reserves the right not to fill all vacancies.

8.8. Candidates classified in addition to the official number of vacancies may be called according to the availability of unfilled vacancies in the regular enrollment period, respecting the academic calendar;

8.9. The Examining Committee shall make a detailed report on the implementation of the selection process with the criteria adopted for the correction of evidence and the award of grades to candidates.

8.10. The final results of the competitions will be approved by PPGEB and published in digital form on the PPGEB and DIRPS website (<https://www.portalselecao.ufu.br/>).

8.11. The registration of the approved candidates will be made according to the academic calendar of the graduate program of the UFU

([http://www.ppgeb.feandlt.ufu.br/sites/padraopos.ufu.br/files/pep1720\\_calendario\\_academicos\\_2021.pdf](http://www.ppgeb.feandlt.ufu.br/sites/padraopos.ufu.br/files/pep1720_calendario_academicos_2021.pdf)), the PPGEB Regulation, the general operating standards of the UFU Graduate Program and the General Regulation of the UFU.

8.12. Successful candidates must submit, by 28/07/2021, the following registration documentation:

1. Application for registration duly completed and signed - consult <http://www.ppgeb.feelt.ufu.br/pt-br/matricula>
2. Civil registration certificate;
3. RG;
4. CPF;
5. Voter's title;
6. Military document;
7. Graduation diploma or certificate of completion containing the date of graduation held;
8. For doctorate the Master's degree or certificate of completion of course.
9. In the case of a foreign student:
10. RNE and CPF;
11. Passport; Passport;
12. Civil registration and translated diplomas;
13. Residence visa in Brazil - student visa IV (Temporary visa IV/VITEM IV).
14. Health Insurance
15. Mandatory presentation of regular situation in Brazil.
16. Declaration that the applicant is able to remain in the country for the desired course;
17. Record Form - [consult http://www.ppgeb.feelt.ufu.br/pt/matricula](http://www.ppgeb.feelt.ufu.br/pt/matricula)
18. Additional documentation may be requested.

8.12.1. Please refer to the <http://www.ppgeb.feelt.ufu.br/pt-br/matricula> at the time of registration to find out about the delivery of the documents.

8.13. At any time, the applicant's registration and registration may be void, provided that any falsehood is verified in the declarations and/or any irregularities in the documents submitted.

8.14. The request for special conditions will be met according to the criteria of feasibility and reasonableness.

8.15. The omitted cases will be resolved by the examining committee together with the PPGEB

Pós-Graduação em Engenharia Biomédica - Avenida João Naves de Ávila, nº 2121, Bairro Santa Mônica - Bloco 3N - Sala 3N115 - Faculdade de Engenharia Elétrica - 38.408-144 - Uberlândia - MG +553432394761 [ppgeb@feelt.ufu.br](mailto:ppgeb@feelt.ufu.br)

<http://www.ppgeb.feelt.ufu.br>



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Collegiate

8.16. In the event of a fortuitous case or force greater that prevents, in part or in full, the conduct of the contest, the UFU reserves the right to cancel, replace dates, to conduct new tests, without any burden to the Institution and without charges of additional fees for candidates.

Uberlândia, June 1, 2021

ADRIANO DE OLIVEIRA ANDRADE

Coordinator of the Graduate Program in Biomedical Engineering

Ordinance Reito No. 784, July 2, 2019



**ANNEX 1**

**Notice PPGEB/FEELT/UFU No. 004/2021**

**Notice for the opening of applications and the selection process for admission to the Postgraduate Program in Biomedical Engineering, referring to the second period of 2021, according to Resolution 06/2020, of the Research and Postgraduate Council**

**RESEARCH LINES**

List of Research Lines of PPGEB guiding professors and number of vacancies per research line. For more information about each teacher and research line, access <http://www.ppgeb.felt.ufu.br/pt-br/pesquisa/linhas-de-pesquisa>

Research Lines	Supervisors	Total Number of Vacancies per Research Line	
		Master	Doctorate
Health Systems Engineering	Dr. Selma Terezinha Miracle Dr Fernando Pasquini	1	2
Computer Systems and Devices Applied to Health	Dr Adamo Ferreira Gomes do Monte	7	4
	Dr Adriano Alves Pereira		
	Dr. Ana Claudia Patrocinio		
	Dr. Ana Paula Perini		
	Dr Diego Merigue da Cunha		
	Dr Lucio Pereira Neves		
Dr João Batista Destro Filho			
Rehabilitation Engineering and Assistive Technologies	Dr Adriano de Oliveira Andrade	3	1
	Dr Alcimar Barbosa Soares		
	Dr Edgard Afonso Lamounier Jr.		
	Dr Eduardo Lázaro Martins Naves		
	Dr Marcus Fraga Vieira		
	Dr Thiago Montes Fidale		

**Division of vacancies by modality (Wide Competition/PCD/PPI)**

mode	Wide Competition	Blacks, browns, indigenous	People with disabilities	total
Regular Students				
MSc	8	2	1	11
Doctorate	5	1	1	7
Special Students				
MSc	7	2	1	10
Doctorate	7	2	1	10



ANNEX 2

Notice PPGEB/FEELT/UFU No. 004/2021

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RESEARCH PROJECT TEMPLATE

Research project written in Portuguese, limited to 10 (ten) pages (formatting: A4 sheet; top and left margin 3 cm. and right and bottom 2 cm.; spacing between lines 1.5 lines and between paragraphs 0.0 dots; Font Times New Roman or Arial size 12) containing the following items:

- a) Candidate Name
- b) Title;
- c) Introduction;
- d) General and specific objectives of the research;
- e) Justification;
- f) Methodological proposition;
- g) Expected results;
- h) Bibliographic References.
- i) Indication of 02 potential supervisors of PPGEB and the line of research selected by the candidate who can guide the proposed research, justifying these choices.

Research Project evaluation - parameters and their scores

Each of the items described in the following table will be evaluated and will receive one of the following grades:

- Very Good: 1.0
- Good: 0.75
- Regular: 0.5
- Weak: 0.25
- Very weak or non-existent: 0.0

For example, if the item was rated as 'Regular' (0.5) and has a weight of 1.5, its score will be equal to 0.75 (0.5 \* 1.5).

Items	Description	Weight	Score
Introduction (2.5)	Does it define the general context of the research and the current state of the art?	1.0	<i>Grade * Weight</i>
	It adequately bases and defines the hypotheses and research questions?	1.5	<i>Grade * Weight</i>
General and specific research objectives (1.0)	Are the objectives coherent, feasible and compatible with the proposal and research questions?	1.0	<i>Grade * Weight</i>





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	Are the specific objectives clearly defined and contribute to the achievement of the overall objective?	0,5	<i>Grade * Weight</i>
Justification (1.0)	Do you discuss the importance of conducting research for science and society, well-founded and with its own arguments consistent with the study proposal?	1.0	<i>Grade * Weight</i>
Methodological proposition (3.0)	Do you clearly discuss the nature of the research (type of study) and the corpus or population under study?	0.75	<i>Grade * Weight</i>
	Do you present the inclusion and exclusion criteria to make up the study population or corpus? In case of theoretical or documentary research, do you present the research sources and criteria for use/selection?	0.75	<i>Grade * Weight</i>
	Do you adequately describe the techniques that will be used? Does it justify which instruments will be used?	0.75	<i>Grade * Weight</i>
	Do you properly describe the data analysis process? Is the analysis process consistent with the nature of the research?	0.75	<i>Grade * Weight</i>
Expected results (1.0)	Do you adequately describe the expected research products and their contributions in line with the research objectives?	1.0	<i>Grade * Weight</i>
Bibliographic References (0.5)	Does it present current bibliography appropriate to the research theme?	0.5	<i>Grade * Weight</i>
Project support to the desired research line (1.0)	Does the project describe your correlations and contributions with the desired line of research?	1.0	<i>Grade * Weight</i>
	<b>total</b>	<b>10.0</b>	



### ANNEX 3

#### Notice PPGEB/FEELT/UFU No. 004/2021

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#### 1 - CURRICULUM VITAE EVALUATION GUIDE (Item A in the Table below)

1 – The information declared in the Curriculum Vitae, which must be generated on the Lattes Platform, will be evaluated according to the issues and scores described in the score board, provided that it is duly proven.

2 - The supporting documents that accompany the candidate's curriculum (Lattes template) should be forwarded in the order of the score board.

#### 2 - HISTORY ASSESSMENT GUIDE (Item B of the Table below)

For the purpose of scoring, the Accumulated General Average (MGA) of the grades of the school records of the undergraduate course (for enrollment in the Master's course) or the school history of the Master's course (for enrollment in the doctoral course) will be measured. The MGA will be normalized to values from 0 to 10. In the case of Master's records that use concepts, the following conversion scale will be used: A = 100%; B = 75%; C=60%; D/E = 0%.

#### 3 - RESEARCH PROJECT EVALUATION ROADMAP (Item C of the Table below)

The evaluation parameters of the Research Project and its scores are defined in Annex 2.

#### 4 - FINAL SCORE

The total score of each of items A, B and C will be weighted, defining specific weights to assign the final grade of candidates to the Masters (PFM) or Doctoral (PFD) courses, as defined at the end of the score board.

#### DISTRIBUTION OF THE SCORING RELATED TO THE EVALUATION QUESTIONS OF THE SELECTION PROCESS

A - Curriculum Vitae Score			
A1	<b>Extracurricular Activities</b>		Limited to 3 points
	Monitoring.	0.5 points/semester	
	Scientific Initiation - proven by official document of the educational institution.	0.5 points/semester	
	Participation in Tutorial Education Program (PET)	0.5 points/semester	
A2	<b>Professional Experience in the last 5 years</b>		Limited to 1 point
	Non-academic activities, with employment of higher level, related to the option of Research Line.	0.1 points/semester	
	Experience in teaching in undergraduate programs	0.2 points/semester	



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<b>A3</b>	<b>Academic Training in Graduate Studies in the last 5 years</b>		limited
	<i>Lato Sensu</i> Specialization Course in the engineering area or in the specific area of the desired research line.	2 points	the 2 points
	Subject in a <i>Stricto Sensu</i> postgraduate course. For those enrolled in the doctoral course, there are exceptions for those subjects taken during the Masters.	0.5 points/discipline	
<b>A4</b>	<b>Technical-Scientific Publication in Events with Anais in the last 5 years</b>		
	Publication in national events, related to the intended line of research.	0.5 points/ full work	
	Publication in international events, related to the intended line of research.	1.0 points/ full work	
<b>A5</b>	<b>Technical-Scientific Publication in Journals in the last 5 years</b> Papers proven to be submitted and accepted, but not yet published will be contemplated.		
	National journals, related to the desired line of research.	2.0 point/full work	
	International journals, related to the desired line of research.	2.5 point/full work	
<b>A</b>	<b>Total General <i>Curriculum Vitae</i> = A1+A2+A3+A3+A4+A5</b>		<b>Limit 10 pts</b>
<b>B - History Score</b>			
<b>B</b>	MGA (Accumulated General Average) of the grades of the academic record of the undergraduate course (for those enrolled in the Master course) or Masters (for those enrolled in the doctoral course).		0 to 10
<b>C - Research Project Score</b>			
<b>C</b>	Research Plan Score		0 to 10
<b>FINAL SCORE</b>			
<b>PFD (Final Score for Doctorate) = 0.35A + 0.05B + 0.6C</b> <b>PFM (Final Score for Masters) = 0.25A + 0.1B + 0.65C</b>			



**ANNEX 4**

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**Program:**

1. Biomechanics;
2. Biomedical Instrumentation;
3. Biomedical Signal Processing;
4. Rehabilitation and Assistive Technologies;
5. Medical Physics

**Recommended Scientific Articles:**

[1] Marie Chana, Daniel Estèvea, Jean-Yves Fourniols, Christophe Escriba, Eric Campoa. Smart wearable systems: Current status and future challenges. *Artificial Intelligence in Medicine* 56 (2012) 137–156.

[2] Vitiello V, Lee SL, Cundy TP, Yang GZ. Emerging robotic platforms for minimally invasive surgery. *IEEE Rev Biomed Eng.* 2013;6:111-26. doi: 10.1109/RBME.2012.2236311. Epub 2012 Dec 24.

[4] Rui Xu, and Donald C. Wunsch, II. Clustering Algorithms in Biomedical Research: A Review. *IEEE Reviews In Biomedical Engineering*, Vol. 3, 2010. pp. 120-154. Digital Object Identifier 10.1109/RBME.2010.2083647.

[5] Ministério da Saúde. Diretrizes Metodológicas: Elaboração de Pareceres Técnicos-Científicos. Disponível em: < <http://200.214.130.94/rebrats/publicacoes/DiretrizesPTC.pdf>>

[6] Misha Pavel, Holly Brugge Jimison, Howard D. Wactlar, Tamara L. Hayes, Will Barkis, Julia Skapik, and Jeffrey Kaye. The Role of Technology and Engineering Models in Transforming Healthcare. *IEEE Reviews In Biomedical Engineering*, Vol. 6, 2013. pp. 156-177.

[7] Karthikeyan Ganesan, U. Rajendra Acharya, Chua Kuang Chua, Lim Choo Min, K. Thomas Abraham, and Kwan-Hoong Ng. Computer-Aided Breast Cancer Detection Using Mammograms: A Review. *IEEE Reviews In Biomedical Engineering*, Vol. 6, 2013. pp. 77-98.

[8] Ministério da Saúde. Diretrizes Metodológicas: Elaboração de Estudos para Avaliação de Equipamentos médicos-assistenciais. Disponível em: < <http://200.214.130.94/rebrats/diretriz.php>>.

[9] Murat Akcakaya, Betts Peters, Mohammad Moghadamfalahi, Aimee R. Mooney, Umut Orhan, Barry Oken, Deniz Erdogmus, and Melanie Fried-Oken. Noninvasive Brain–Computer Interfaces for Augmentative and Alternative Communication. *IEEE Reviews In Biomedical Engineering*, Vol. 7, 2014. pp. 31-49.



[10] Yu Mike Chi, Tzyy-Ping Jung, and Gert Cauwenberghs. Dry-Contact and Noncontact Biopotential Electrodes: Methodological Review. *IEEE Reviews In Biomedical Engineering*, Vol. 3, 2010. pp. 106-119.

[11] YOSHIMURA, E. M.. Física das Radiações: interação da radiação com a matéria. *Revista Brasileira de Física Médica (Online)*, v. 3, p. 57-67, 2009.

[12] YORIYAZ, H.. Método de Monte Carlo: Princípios e aplicações em Física Médica. *Revista Brasileira de Física Médica (Online)*, v. 3, p. 141-149, 2009.

### **Recommended books:**

[1] TONG, R. K-Y. *Wearable Technology in Medicine and Health*. Academic Press, 2018. ISBN: 978-0-12-811810-8. DOI: <https://doi.org/10.1016/C2016-0-01277-9>. Disponível em <<https://www.sciencedirect.com/book/9780128118108/wearable-technology-in-medicine-and-health-care>>.

[2] HALL, S. **Biomecânica básica**. 7ª Edição. Rio de Janeiro, Guanabara Koogan, 2016.

[3] WEBSTER, J. G. (Editor). **Encyclopedia of Medical Devices and Instrumentation**. 2ª ed., Hoboken, NJ: Wiley, 2006.

[4] Edited by Fernando A. Auat Cheein. **Assistive Technologies**. Publisher: InTech, Published: March, 2012. DOI: 10.5772/1089. Disponível em <<http://www.intechopen.com/books/assistive-technologies>>.

[5] Edited by Tan Yen Kheng. **Rehabilitation Engineering**. Publisher: InTech, Published: December, 2009. DOI: 10.5772/145. Disponível em <<http://www.intechopen.com/books/rehabilitation-engineering>>.

[6] Okuno, E., Caldas, I. L. e Chow, C., *Física para Ciências Biológicas e Biomédicas*, Editora Harbra, São Paulo, 1986.





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**ANNEX 5**

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**EXAMINING COMMITTEE**

- 1 – Eduardo Lázaro Martins Naves
- 2 – Lucio Pereira Neves
- 3 – Fernando Pasquini Santos



**ANNEX 5**

**Notice PPGEB/FEELT/UFU No. 004/2021**

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SELF-DECLARATION FORM FOR CANDIDATES WITH REGISTRATION IN THE MODALITY OF VACANCIES: BLACKS, BROWNS, INDIGENOUS OR PEOPLE WITH DISABILITIES

**SELF-DECLARATION**



According to Resolution No. 06/2017/CONPEP/UFU, I, \_\_\_\_\_, social name \_\_\_\_\_ (if any), registered for the Selection Process ( ) in the Academic Master's Course or ( ) in the Academic Doctorate Course in Biomedical Engineering of the Federal University of Uberlândia (UFU), RG N° \_\_\_\_\_, CPF n° \_\_\_\_\_ in 2021, with entry in 2021-2, declare – under penalty of application of sanctions provided for in Decree-Law No. 2848/1940 (Penal Code, art. 171 and 299); administrative (nullity of registration, among others) and civil (reparation to the herbal), in addition to the sanctions provided for in the internal rules of the UFU – which I am (indicate black or brown or identify as indigenous or disabled person).

I inform you below of the criterion (criteria) used in this self-statement.

( ) Physical characteristics

Specify: \_\_\_\_\_

( ) Deficiency.

Specify: \_\_\_\_\_

Attach the report (with CID - International Statistical Classification of Diseases) that justifies the indication of the disability in compliance with the provisions of art. 3rd of Resolution No. 06/2017 of the Research and Graduate Council/UFU.

( ) Others.

Specify: \_\_\_\_\_

I also declare to be aware that, after enrolled in the UFU, I may be summoned by specific commissions of the University to verify the statement contained in this declaration.

(City), (Month) (Date), (Year) – Candidate's Signature