

2024/2025 ACADEMIC YEAR

**INFORMATION FOR APPLICATIONS**

Cycle of Studies (CS)	Second Cycle	Ciclo de Estudos		
Computational Mechanics		Mecânica Computacional		
Organisational unit	Organisational Unit(s)/University(ies) in association	Location of CS edition (if in association)		
FEUP				
Functioning				
Daytime				
Contact Person	E-mail	Phone	CS Director	E-mail
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**Places**

Places established in the accreditation process					30
Places	TOTAL	1 <sup>st</sup> Phase	2 <sup>nd</sup> Phase	3 <sup>rd</sup> Phase	
(If applicable) number of IS and NS places	30	15	10	5	
Does it include leftover places?			Yes	Yes	

**Minimum number of students**

Minimum number of students for the cycle of studies to operate	20
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Calendar NS + IS

	1 <sup>st</sup> Phase		2 <sup>nd</sup> Phase		3 <sup>rd</sup> Phase	
	Beginning	End	Beginning	End	Beginning	End
Submission of applications	09-01-2024	01-02-2024	18-03-2024	18-04-2024	06-08-2024	14-08-2024
Application review	02-02-2024	20-02-2024	19-04-2024	24-05-2024	16-08-2024	02-09-2024
Posting of provisional results	21-02-2024		27-05-2024		03-09-2024	
Prior hearing	22-02-2024	06-03-2024	28-05-2024	12-06-2024	04-09-2024	17-09-2024
Posting of final results	13-03-2024		17-06-2024		20-09-2024	
Submission of complaints	14-03-2024	04-04-2024	18-06-2024	09-07-2024	23-09-2024	11-10-2024
Publishing of decision about complaints	11-04-2024		22-07-2024		18-10-2024	
Enrolment	18-03-2024	26-03-2024	20-06-2024	06-08-2024	23-09-2024	27-09-2024
Admission of non-placed applicants	02-04-2024	09-04-2024	07-08-2024	12-08-2024	30-09-2024	06-10-2024
Publishing of leftover places	16-04-2024		13-08-2024			

Procedure for notifying candidates

The results will be published in the form of a notice on the Faculty's website.

The e-mail address provided in the application process will be used as a supplementary means of publishing the results.

Credit transfer regarding training and work experience

Deadlines for credit transfer regarding training and work experience

	1 <sup>st</sup> Phase	2 <sup>nd</sup> Phase	3 <sup>rd</sup> Phase
Submission of request	On application and on enrolment	On application and on enrolment	On application and on enrolment
Publishing of results	Up to 15 working days after the end of the enrolment period or the end of the credit transfer process	Up to 15 working days after the end of the enrolment period or the end of the credit transfer process	Up to 15 working days after the end of the enrolment period or the end of the credit transfer process
Change of enrolment resulting from the credit transfer process	Up to 10 working days after the publishing of the credit transfer results	Up to 10 working days after the publishing of the credit transfer results	Up to 10 working days after the publishing of the credit transfer results

## Calendar for the academic year

Calendar for the academic year		
	1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester
Beginning of the academic year at U. Porto	16/09/2024	10/02/2025
Beginning of the lecturing activity in the Cycle of Studies	23/09/2024	12/02/2025
End of the lecturing activity in the Cycle of Studies	20/12/2024	30/05/2025
Deadline for completion of evaluation	07/02/2025	11/07/2025
Deadline for completion of evaluation in the Cycle of Studies	07/02/2025	11/07/2025

## Access Conditions and Ranking Criteria

### Specific conditions to access the Cycle of Studies

Applicants who may apply for a Master's programme at FEUP are those who are:

- 1) Holders of a bachelor's degree (or legal equivalent) in the area of Mechanical Engineering (or similar area deemed appropriate by the Scientific Committee of the Cycle of Studies);
- 2) Holders of a foreign higher academic degree in the area of Mechanical Engineering (or similar area deemed appropriate by the Scientific Committee of the Cycle of Studies) conferred following a 1<sup>st</sup> cycle of studies organised in accordance with the principles of the Bologna Process by a country adhering to this Process;
- 3) Holders of a foreign higher academic degree in the area of Mechanical Engineering (or a similar area deemed appropriate by the Scientific Committee of the Cycle of Studies) with a duration of, at least, 3 academic years;
- 4) Holders of an academic, scientific or professional curriculum in the area of Mechanical Engineering (or similar area deemed appropriate by the Scientific Committee of the Cycle of Studies), including:
  - a) applicants whose bachelor's degree is pending the administrative closure of a mobility process that has already been completed, and who are in a position to obtain their bachelor's degree by the end of the enrolment deadline of the respective application phase, regardless of their HEI of origin. These applicants will lose their right to their place within the competition in question if they are unable to enrol by the deadline;
  - b) "*students about to graduate from a bachelor's degree*" who are in a position to obtain their bachelor's degree by the end of the enrolment deadline of the respective application phase, regardless of their HEI of origin. These applicants will lose their right to their place within the competition in question if they are unable to enrol by the deadline;
  - c) applicants who, not being covered by paragraphs a) or b), are holders of an academic, scientific or professional curriculum that is recognised by FEUP's statutorily competent scientific body as attesting to their ability to complete the cycle of studies they are applying for.

Proficiency in English is recommended, as this is the language in which this cycle of studies is taught.

Criteria and subcriteria for selection and ranking of applicants	Weightings
Applicants will be ranked in descending order of their Final Mark (CF), based on the weighted average of the following: Application Average Grade (MC), Adequacy of Previous Training (AF), Prestige of the Educational Establishment (PEE) and Extra-Curricular component (EC). The Final Mark (CF) is rounded to the nearest hundredth.	
a) The Application Average Grade (MC), expressed on a scale of 10 to 20 points, rounded to the nearest unit, represents the applicant's final bachelor's degree mark (180 ECTS) or their current average at the time of application in the case of <i>graduates</i> or <i>students about to graduate from a bachelor's degree</i> , respectively.	[0,40]

<p>b) The Adequacy of Previous Training (AF) of the applicant should consider the following components:</p> <ol style="list-style-type: none"> <li>i. The Adequacy of the Degree (AC), represents the assessment of the course directors of the "degree of coverage in fundamental scientific areas" provided by the syllabus of the (fundamental) degree of origin, expressed on a scale of 10 to 20 points, rounded to the nearest unit;</li> <li>ii. Applicants who hold more than one higher academic degree (or who have a diverse prior educational background that is highly relevant to the cycle of studies they are applying for) may have the Adequacy of their Degree increased by up to 4 points.</li> </ol> <p>The Adequacy of Previous Training (AF), expressed on a scale rounded to the nearest unit and limited to 20 points, should be calculated using the following formula:</p> $AF = AC + [0...4]$	[0,35]
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<p>c) The Prestige of the Educational Establishment (PEE) represents the quality and prestige of the applicant's home educational institution, and is assessed using the latest available edition of the QS ranking <sup>(1)</sup> for the scientific area of Engineering in question (or <i>Webometrics</i> <sup>(2)</sup>, if the HEI is not included in the QS ranking), converting the HEI's position in the respective ranking (<i>POS_QS</i> or <i>POS_Web</i>) to a scale of 10 to 20 points, rounded to the nearest unit, as follows:</p> <ol style="list-style-type: none"> <li>i. if the HEI is included in the QS ranking, institutions in the 1<sup>st</sup> quartile (1<sup>st</sup>Q) have a PEE equal to 20 points, those in the 2<sup>nd</sup>Q have 19 points, those in the 3<sup>rd</sup>Q have 18 points and those in the 4<sup>th</sup>Q have 17 points;</li> <li>ii. if the HEI is only included in the <i>Webometrics</i> ranking, then the PEE parameter will have a value between 10 and 16, according to the following formula <sup>(3)</sup>:</li> </ol> $PEE = \begin{cases} 16 & , POS\_Web \leq 1000 \\ \left\lfloor 20 - \frac{POS\_Web}{200} \right\rfloor & , 1000 < POS\_Web \leq 2000 \\ 10 & , POS\_Web > 2000 \end{cases}$ <ol style="list-style-type: none"> <li>iii. if the HEI is not included in any of the rankings considered above, then: <math>PEE = 10</math></li> </ol>	[0,20]
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<p>d) The Extra-Curricular (EC) component, expressed on a scale of 10 to 20 points, rounded down to the nearest tenth, focuses on the applicant's career outlook and vision, through their professional career and their intentional investment in training and/or research activities relevant to the exercise of the professional career, and their ability to synthesise and communicate. It will be assessed through the following macro-criteria:</p> <ul style="list-style-type: none"> <li>- Professional experience in companies that use numerical calculation tools (60%)</li> <li>- Participation in research projects in areas where numerical calculation tools are used (30%)</li> <li>- Carrying out training courses in numerical calculation tools (10%)</li> </ul>	[0,05]
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Only applicants with a minimum Final Mark (CF) of 10 points (on a scale of 10 to 20) will be admitted.

Tie-breaking criterion (may be the classification in some of the elements in the table above)

In the event of any ties with an impact on the admission (or non-admission) of applicants, the following criteria will be considered sequentially:

- a) Average of the curricular units considered in MC, expressed on a scale of 10 to 20 points rounded to the thousandths, according to the Certificate of the higher education institution listing the curricular units completed (document required in the application).
- b) Evaluation of the *curricula* submitted by the applicants, evaluated taking into account the following criteria:
  - i. Involvement in professional experiences, including I&D activities and/or internships (50% weight):
    - a. Evaluated by the applicant's report of experiences/activities and their enthusiasm/involvement (25% weight);
    - b. Evaluated by the relevance of the professional experiences carried out in the technical-scientific context of the cycle of studies (25% weight).

- ii. Synthesis ability (50% weight):
  - a. Evaluated through the structure/organisation/clarity in which the curriculum vitae is presented (25% weight);
  - b. Evaluated by the way in which the applicant has structured their presentation, and whether or not it presents a clear sequentiality of ideas (Introduction ... development ... conclusion) (25% weight).
- c) Individual interviews\* with the group of applicants in question. The interview will be assessed according to the following criteria:
  - i. Ability of expression and presentation (50% weight):
    - a. Whether the applicant has adequate verbal fluency and domain over terminology/concepts in the scientific area of the cycle of studies to which they are applying (25% weight);
    - b. Whether the applicant expresses confidence, conviction, command of non-verbal language (including eye contact), appropriate voice placement, clarity of ideas (25% weight).
  - ii. Career outlook and vision (50% weight):
    - a. Evaluated by the clarity in which the applicant foresees the contribution the programme will have on their career prospects (25% weight);
    - b. Evaluated through enthusiasm/commitment/involvement with the programme and the institution to which they are applying (25% weight).

\* The call for interviews will be made by e-mail to the address given in the application.

## Observations

### About the Application Average Grade

1. In the case of a holder of a bachelor's degree obtained in Portugal, the value of the Application Average Grade (MC) will be the value of their Final Course Average (rounded to the nearest unit);
2. In the case of a foreign degree holder, the Application Average Grade (MC) will be the value of their Final Course Average, which will then be converted to a scale of 0 to 20 points and rounded to the nearest unit;
3. In the case of a holder of more than one higher academic degree, the assessment jury must determine which course of origin is to be taken into account for the purposes of calculating the value of the Application Average Grade (MC);
4. In the case of a student about to graduate from their bachelor's degree, the value of the Application Average Grade (MC) corresponds to the average in the degree (at the date of application);
5. In the case of applicants who are holders of a curriculum recognised as attesting to their ability to complete the cycle of studies, the value of their Application Average Grade will be assigned by the body that assesses this ability.

### About the Graduation Certificate from a higher education programme (bachelor's degree)

1. Graduation certificate from a bachelor's degree, indicating the course average rounded to the nearest unit. If the degree average (including, in the case of a foreign HEI, the grading scale and weighting system) is not provided, the minimum pass mark on the Portuguese scale (10 points) will be considered;
2. Applicants applying as "students about to graduate from a bachelor's degree" must submit a supporting document issued by the HEI indicating their current average or a declaration of honour, according to the model provided, as well as a certificate of curricular units completed with the respective marks and ECTS credits. If they are from a foreign HEI, they must also submit an official declaration issued by the respective HEI stating the grading scale and the respective minimum pass mark. If only part of the documentation is submitted, the minimum pass mark on the Portuguese scale (10 points) will be awarded.

(1) <https://www.topuniversities.com/qs-world-university-rankings>

(2) <http://www.webometrics.info/en>

(3) The cap function, denoted by  $[x]$ , converts the real number  $x$  into the smallest integer greater than or equal to  $x$ .