



**Politecnico  
di Torino**

# **Regulations for the Ph.D. course in Aerospace Engineering**

Issued with Rector's decree no. 1119 of 3<sup>rd</sup> October 2024  
In force since 3<sup>rd</sup> October 2024

The English translation of this document is provided as a support to the student community and has no legal effects. The Italian version shall constitute the sole authentic text and will be referred to for any legal matters.

## Art. 1 – Subject of the Regulation

1. In full compliance with the current legislation and regulations regarding Ph.D. Programs (hereinafter referred to as University Regulations), this Regulation governs the organizational and educational aspects of the Ph.D. Program in Aerospace Engineering (hereinafter referred to as the Program).

## Art. 2 – Course Description and Educational Objectives

1. The description of the Program along with the definition of the educational objectives is subject to discussion and possible updates by the Academic Board annually, following consultation with the Advisory Board, typically in conjunction with the accreditation practice of each Cycle.
2. The description of the Program and its educational objectives, as recorded in the Academic Board minutes, is posted on the dedicated website.
3. The administrative headquarters of the Program is located at the Department of Mechanical and Aerospace Engineering (hereinafter referred to as DIMEAS).
4. The official languages of the Program are Italian and English. General communications, events organized by the Program, teachings, and related examinations are generally conducted in English. The Ph.D. thesis and its final defense are in English.

## Art. 3 – Research Macro-Areas

1. The Program's macro-areas mainly refer to those pertaining to the following Scientific-Disciplinary Sectors, as well as interdisciplinary and multidisciplinary themes related to them:
  - IIND-01/C Flight Mechanics
  - IIND-01/D Aerospace Structures
  - IIND-01/E Aerospace Systems
  - IIND-01/F Fluid Dynamics
  - IIND-01/G Aerospace Propulsion
2. The Academic Board approves the research topics that are the subject of the Training Projects of the Ph.D. candidates annually. The description of the research topics is posted on the dedicated website of the Program.

## Art. 4 – Renewal of the Ph.D. Program

1. The Coordinator convenes, within the month of October of each year, a meeting of the Academic Board to discuss the renewal of the Program or the possible new accreditation in the event that the cases referred to in Article 5 of DM 226/2021 occur (change in the name of the Program, change in the composition of the Academic Board by more than twenty-five percent compared to the initial composition of the reference cycle, or change in the Coordinator of the Program, while ensuring compliance with the requirements stipulated in Article 4 for each member of the Academic Board).
2. Within the same timeframe, the opinion of DIMEAS, the administrative headquarters of the Program, must be obtained.
3. The Coordinator then presents the proposal to the Ph.D. School Board.

## Art. 5 – Course Catalogue

1. Each year, according to the deadlines indicated by the Ph.D. School (hereinafter referred to as the School), internal professors of the University can submit proposals for technical-specialist and/or cross-disciplinary teaching through the uploading of the form in the "third-level educational offer" procedure, for review by the Academic Board. Simultaneously, the Coordinator solicits proposals for new courses on topics deemed appropriate by the Advisory Board.
2. Upon obtaining a favorable opinion from the Academic Board, the Coordinator forwards the final proposal adopted by the Academic Board for approval by the bodies of the School, also based on any indications from the Advisory Board.
3. The catalog of courses approved for the academic year is published on the School's website. In the case of courses offered every other year, in order to allow Ph.D. candidates to have as complete a picture as possible of the catalog available for their study path, a biennial schedule is also published.
4. The catalogue is organized according to a schedule published on the University's website. To ensure that the publication can take place well in advance, instructors of "hard skills" courses communicate the dates by the beginning of the corresponding semester.
5. Regarding invited lectures (guest lectures), as per Article 11, clause 1 of the University Regulations, proposals - indicating the names and CVs of the proposed instructors - are submitted to the Coordinator of the Program at least 10 days before the deadlines set annually by the Ph.D. School for appropriate deliberations. The Coordinator, before transmitting the proposals to the School, obtains approval from the Department Director to which the initiative belongs, and assigns an order of priority in the case of multiple proposals.

## Art. 6 – Organization of the Ph.D. Program

### 6.1. Bodies of the Ph.D. Program

The bodies of the Ph.D. Research Program are:

- a) The Academic Board
- b) The Coordinator

#### 6.1.1 The Academic Board

##### Composition

1. The composition, functions, and eligibility requirements of the Academic Board members are established in Article 9 of the Regulations on Ph.D. Research.
2. Individuals eligible to be part of the Academic Board, as indicated in point 1, submit a request to participate in the Academic Board, to be sent through email to the Coordinator by one month before the accreditation procedure starts (unless other constraints are set by the School) , accompanied by:
  - a. Confirmation of meeting the minimum requirements specified in Article 9 of the Regulations on Ph.D. Research, and the relevant indices for accreditation of the Program;
  - b. Declaration of willingness to carry out activities at the Ph.D. Program as a Supervisor or co-Supervisor;
  - c. Declaration of non-membership/membership in Ph.D. Committees at other Universities and, in the case of professors and university researchers belonging to another university, also a clearance issued by the home university;
  - d. Any additional documentation at the discretion of the Academic Board.

3. The Academic Board evaluates the membership proposals considering the scientific qualification requirements specified by current regulations, as well as any additional constraints related to the diversity and balance of the cultural components characterizing the Program.
4. Prolonged absence from Academic Board meetings during the year may be grounds for exclusion from the Board itself during the annual renewal phase of the composition as per point 6 of this article. The Coordinator will send a warning through email to the Academic Board members who will be missing two consecutive meetings without any justification. Academic Board members who, without justified reason, will be absent for an additional meeting (for a total of three meetings in a row), will lose their position.
5. The Academic Board presents to the DIMEAS Department Council, for its deliberation, the proposal for its composition.
6. The composition of the Academic Board is decided once a year, usually in anticipation of the accreditation renewal phase.
7. The Academic Board includes, for discussion of educational and organizational issues, two representatives of the Ph.D. students elected by the enrolled students in accordance with the Regulations for the election of student representatives in governing bodies and other collegiate bodies. These student representatives do not participate in discussions and deliberations regarding the annual evaluation of enrolled students and the organization of the final examination.
8. Supervisors and co-Supervisors not belonging to the Academic Board are also invited, without voting rights.
9. The list of Academic Board members is published on the Ph.D. Program website and promptly updated in case of changes.

### Functioning

1. The Academic Board is convened by the Coordinator at least twice a year and whenever the Coordinator deems it necessary to carry out its tasks in a timely manner.
2. The invitation is sent via email at least five working days before the meeting and includes the agenda. The notice period may be shortened, in case of urgent need, to two days.
3. The Academic Board may also be convened upon request of at least 1/3 of its members, who must specify the topic to be included in the agenda. In this case, the convocation must take place within fifteen days of the submission of the request.
4. Academic Board meetings may be held remotely or via teleconference as provided for in the Regulations for the conduct of collegiate body meetings via teleconference and using video conferencing systems.
5. Meetings of the Academic Board are chaired by the Coordinator and are valid if the majority of eligible members are present, deducting justified absences. In any case, the presence of at least one third of the members with voting rights is required for validity.

6. Academic Board members commit to regularly attend meetings and, in case of impossibility, provide written notice to be sent through email to the Coordinator before the meeting starts.
7. Resolutions are adopted with the favorable vote of the majority of those present and are immediately enforceable.
8. The functions of Secretary, responsible for drafting the minutes, are assigned at the beginning of the meeting to one of those present.
9. For matters not covered by these regulations concerning the functioning of Academic Board meetings, reference is made to the University's General Regulations in force.

#### 6.1.2. The Coordinator

1. The requirements and functions of the Coordinator are governed by Article 9.1 of the Regulations on Ph.D. Research.
2. The Coordinator is delegated by the Academic Board to the approval of:
  - a. PhD students teaching collaborations;
  - b. use by the PhD students of additional mobility fundings (available from the residual funds of the Program).

#### 6.1.3. The Vice-Coordinator (*optional*)

1. The Coordinator proposes to the Academic Board a Vice-Coordinator who can replace the Coordinator in their functions in case of absence or impediment.

### 6.2. Other Roles in the Ph.D. Program

Contributing to the functioning of the Ph.D. Program are the following:

#### 6.2.1 Advisory Board

1. The Advisory Board is appointed by Academic Board and is composed of members coming from research bodies and companies, national and international, important for the research activities of the Program (maximum two members for each represented body).
2. The Academic Board meets at least once a year to assess the progress of the Program, develop proposals for defining and designing the educational offer and learning objectives, providing guidelines for continuous updating and improvement.

#### 6.2.2 Supervisors and co-Supervisors

1. Within one month after the start of the Ph.D. courses, the Coordinator convenes a meeting of the Academic Board during which the new Ph.D. students present a proposal for their Training Project (art. 7).

2. Taking into due consideration the proposed Training Project, the macro-research areas of the Program referred to in the previous art. 3, the possible topic of the assigned scholarship and the availability of one or more professors, the Academic Board assigns to each Ph.D. student a Supervisor and at least one co-Supervisor. In the case of scholarships with specific topics, the Supervisor already identified during the publication of the scholarship in the admission notice is usually confirmed.
3. The profile and main functions and responsibilities of Supervisors and co-Supervisors are outlined in the University Regulations.
4. If deemed necessary, and with the agreement of the Ph.D. student, the Academic Board may replace, by motivated resolution, the Supervisor and/or co-Supervisor at any stage of the Ph.D. student's training cycle.

### 6.2.3 Committees

1. For managing the activities of the Program, the Academic Board has full autonomy to activate Committees for specific subjects under the coordination of a responsible member.

## Art. 7 – Training Project and Declaration of Intent

1. During the first meeting of the Academic Board following the start of his/her Ph.D. activity (art. 6.2.2), each Ph.D. student presents a proposal for a Training Project which reports the study and research objectives and the program of activities.
2. The Training Project is approved by the Academic Board, within one month of submission, and serves as a reference for the annual verification of the fulfillment of the Ph.D. candidates' training obligations.
3. During the transition to the next academic year, the Training Project is presented to the Academic Board, which may request any adjustments it deems necessary.
4. The Academic Board may, in agreement with the Ph.D. candidate, revise the Training Project during the course of study in consideration of emerging factors that may affect its feasibility.
5. The Training Project includes:
  - a) the research program to be developed by the Ph.D. candidate under the guidance of the Supervisor and co-Supervisor(s), including any pre-planned, off-site research activity;
  - b) the learning objectives complementary to research activities, including any pre-planned external activities. With the Supervisor's authorization, the Training Project may include Level I or II courses if the Ph.D. candidate has not previously taken them or if they are not part of their academic workload in the case of simultaneous enrollment in another study program.
6. For the assessment of external educational activities and research activities, refer to the Operational Procedures.
7. Within three months, the Supervisor and the Ph.D. candidate compile and sign the Declaration of Intent, which may be confirmed or updated at least once a year.

## Art. 8 – Admission to Subsequent Years and Final Examination

1. In accordance with the University Regulations on Ph.D. Studies and the related Operational Procedures, the Academic Board, nearing the end of each academic year, evaluates the progress of the educational and research path and decides on admissions to the following year and the final examination. The admission procedure includes:
  - a. verification, by the Coordinator, of quantitative criteria satisfaction as outlined in paragraphs 3, 4 and 5 and considering on the indicators defined in the Operational Procedures,
  - b. obtaining the opinion of the Supervisors,
  - c. verification of the progress of research activities and their consistency with the Training Project as described in paragraph 6.
2. Any critical cases are discussed, gathering input from the Supervisors. At the end of the discussion, the Academic Board deliberates on admissions and documents the decisions.

### Admission to the Second Year

3. In accordance with the requirements specified in the Regulations on Ph.D. Studies and the Operational Procedures, for admission to the second year, Ph.D. candidates must meet the following quantitative criteria:
  - a. For educational activities:
    - the recording of at least 60 equivalent hours (H indicator, as per the rules of the Operational Procedures) of courses.

### Admission to the Third Year

4. In accordance with the requirements specified in the Regulations on Ph.D. Studies and the Operational Procedures, for admission to the third year, Ph.D. candidates must meet the following quantitative criteria:
  - a. For educational activities:
    - the recording of at least 100 equivalent hours (H indicator, as per the rules of the Operational Procedures) of courses.
  - b. For research activities:
    - one contribution presented at an international conference (held during the first two years of the program) or one paper accepted for publication in an international journal (and submitted during the first two years of the program).

## Admission to the Final Examination

5. In accordance with the requirements specified in the Regulations on Ph.D. Studies and the Operational Procedures, for admission to the final examination, Ph.D. candidates must meet the following quantitative criteria:
  - a. For educational activities:
    - the recording of at least 40 equivalent hours (H indicator, as per the rules of the Operational Procedures) of TRANSVERSAL CHARACTER (SOFT SKILLS) courses;
    - the recording of at least 100 equivalent hours (H indicator, as per the rules of the Operational Procedures) of TECHNICAL-SPECIALIZED (HARD SKILLS) courses
  - b. For research activities:
    - one additional paper accepted for publication in an international journal (and submitted not before the beginning of the second year);
    - at least one exclusive publication per Ph.D. candidate  $N \geq 1$ , (this requirement can be satisfied with one of the papers already considered in the previous point or for the admission to the third year).
    - research activity indicator:  $R \geq 50$  as defined in the Operational Procedures of the Regulations on Ph.D. Research.
  
6. The assessment of the progress of the research activity and its consistency with the Training Project takes place according to the following methods:
  - a. appointment of evaluation committees:
    - i. the Coordinator proposes in time for the approval of the Academic Board the composition and establishment of the evaluation committees for each Ph.D. student;
    - ii. each committee is made up of the Supervisor, two members proposed by the Supervisor and two other members proposed by the Coordinator, based on turnover criteria and uniform distribution of the workload among all the members of the Academic Board, for a total of maximum 5 members;
    - iii. the committee remains in office for the entire three-year period and is responsible for the assessment of the associated PhD student at the end of the first year, at the end of the second year and at the end of the third year;
  - b. admission to the third year:
    - i. each Ph.D. student prepares a poster summarizing the activity carried out and presents it, during a public poster day, to the committee;
    - ii. the committee writes an evaluation report and submits a proposal for admission/non-admission to the Academic Board;
  - c. admission to the second year and to the final examination:
    - i. each Ph.D. student presents the activity carried out to the committee in charge, during meetings also open to other members of the Academic Board;
    - ii. the committee writes an evaluation report and submits a proposal for admission/non-admission to the Academic Board.

## Art. 9 – Criteria for Distribution of Resources

1. The Program annually transposes the University's resources in terms of funded and/or co-funded grants, as well as the list of thematic grants funded and/or co-funded from departmental and/or external resources.



2. The Academic Board defines in which sessions of the call for admission to publish the grants, using the appropriate application made available by the University.
3. The Selection Committee appointed by the Rector, according to the Regulations on Ph.D. Programmes, shall allocate the available scholarships to the winners taking into account the final ranking, judgment of eligibility and preferences of the winners.

## Art. 10 – Amendment of the Internal Regulations of the Ph.D. Program

1. Any amendment to these Regulations must be approved by the Academic Board and submitted for review to the School and approval by the Academic Senate, subject to the opinion of the Board of Directors.

## Art. 11 – Final and Referral Provisions

1. These Regulations supplement, to the extent expressly provided therein, the provisions established by the current national legislation and the University Regulations regarding Ph.D. Research, which are fully and directly applicable in any case.
2. These Regulations apply to students of the 38th cycle and subsequent cycles, except where these regulations impose stricter constraints or requirements.