



UNIVERSITÀ
DI TRENTO

INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING INTERNAL REGULATIONS

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of the Industrial Engineering Department
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**INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING
INTERNAL REGULATIONS**

INDEX

Art. 1 – Regulation's purposes	3
Art. 2 – Establishment of the PhD	3
Art. 3 – Objectives.....	3
Art. 4 – General Features.....	4
Art. 5 – PhD Governing Bodies	4
Art. 6 – The Teaching Board (Academic Board).....	4
Art. 7 – The Director.....	7
Art. 8 – The Executive Committee.....	7
Art. 9 – The Secretariat	7
Art. 10 – The Supervisors.....	8
Art. 11 – PhD Admission - Requirements and procedures	8
Art. 12 – Educational activities	8
Art. 13 – Student Guide / Handbook of studies	9
Art. 14 – Annual assessment and final examination.....	9
Art. 15 – Evaluation of the doctoral thesis: terms and extension.....	10
Art. 16 - PhD awarding	12
Art. 17 - Patent rights	12
Art. 18 – PhD Student Rights and Obligations	13
Art. 19 – Final and referral rules.....	14



**INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING
INTERNAL REGULATIONS**

Art. 1 – Regulation's purposes

1. This Regulation governs the management and organization of the Doctoral School in Materials, Mechatronics and Systems Engineering (hereinafter also "PhD programme") in accordance with current legislation.

Art. 2 – Establishment of the PhD

1. The PhD programme (Research Doctorate) in Materials, Mechatronics and Systems Engineering, is established at the Department of Industrial Engineering (hereinafter "DII") of the University of Trento.

Art. 3 – Objectives

1. Specific goals are identified, besides the general goals of PhD programmes defined by Art. 3 of the University Regulations for Doctoral programmes (hereinafter "University Regulations"). The MMSE PhD programme (The Doctoral School) aims at educating professionals with knowledge and skills enabling them to undertake independent research and production activities in technologically advanced sectors, with a focus on Advanced materials, Mechatronics and Systems Engineering.

2. Among the goals of the Doctoral School, to be achieved through teaching and research activities, is the PhD students' attainment of professional maturity and autonomy in designing, planning, implementing research activities and reporting on related results.

3. The purposes of the research activity, within the specific subject chosen by the candidate, fall under the four main areas of Materials Science and Engineering, Mechanical and Mechatronic systems, Electronic Systems and Integrated Microelectronic Systems, and Operation Research. The research activities within these four areas are described in detail on the web site of the course.



**INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING
INTERNAL REGULATIONS**

Art. 4 – General Features

1. The PhD programme lasts three years.
2. Candidates are admitted upon selection. Every year one or more public calls are launched for the selection of PhD candidates. The call, defining number of places and grants provided, is usually published in Italian and English.
3. Most qualified students will be admitted to the PhD programme regardless of gender, age, nationality, religion, ethnic origins and social level.
4. Official language of the PhD programme is English. International students are expected to learn basic Italian by the end of the second year of the course.

Art. 5 – PhD Governing Bodies

1. The PhD governing bodies are:
 - a) the Teaching Board ;
 - b) the Director ;
 - c) the Executive Committee.

Art. 6 – The Teaching Board (Academic Board)

1. The following members of the PhD programme are entitled to participate to the Teaching Board with voting rights, upon specific membership request:
 - a. Professors and researchers (RTD-A are excluded) who are members of DII;
 - b. Professors and researchers (RTD-A are excluded) who are members of other Departments or Centres of the University of Trento;
 - c. Representatives of public and private bodies cooperating with the PhD programme;
 - d. Italian or foreign experts.



**INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING
INTERNAL REGULATIONS**

The requests of membership submitted by the above groups b., c. e d. are subject to the approval of the Teaching Board. Two students representatives, elected among the students of the PhD programme, and who may coincide with those appointed in the Committees of the Department, are qualified to participate to the meetings of Teaching Board, but only for issues regarding the general progress of the programme and the training Programmes. They are elected for two years. In case of forfeiture, during these two years, the first non-elected candidates replace them.

2. Members of the PhD Teaching Board named under the above items c) and d) cannot exceed the 40% of the total number of participants of the Board, rounded up to the nearest lower figure.

3. Other persons can be enabled to participate to the meetings of the Teaching Board and to discuss specific issues, without voting rights and upon invitation of the Director, provided that they can give a valuable contribution to the scientific, educational, technical and financial activities of the PhD programme.

4. Requests for new affiliations to the PhD Teaching Board, including members' replacements, should be directly submitted to the Teaching Board. A written application with motivations, curriculum vitae and a list of publications of the last five years (with the indication of the 5 most relevant ones) must be addressed to the Director, jointly with a declaration they do/do not belong to PhD committees of other Universities and, in case they are professors and researchers of a different university, or of another academic structure of the University of Trento, and with the authorization issued by the University they belong to. It is possible to participate in an additional Academic Board only if this refers to a PhD program organized in an associated form, including industrial doctoral programmes and doctoral programmes of national interest as referred in art. 10 and art. 11 of the D.M. n. 226/2021 as indicated in Article 12, paragraph 4 of the University Regulations.

5. The Teaching Board's meetings are convened by the Director or upon request of 1/3 of its members, at least.

6. The Director announces the Board meetings by e-mail at least 7 days prior to the gathering. In case of urgency, this term may be shortened to 48 hours/2 days. The call must clearly include the topics to be discussed (Agenda). The Director is in charge of setting out the Agenda.

7. Meetings are suitable to take valid decisions when participants represent the majority of the official members as defined in item 1, deducted justified absences.



**INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING
INTERNAL REGULATIONS**

8. Decisions are taken with the favourable vote of the majority of participants and are suitable to be immediately implemented, except in case the Board explicitly postpones their execution. In the event of a tie, the vote of the Director will prevail.

9. The Minutes Secretary, appointed by the School Coordinator among professors and researchers belonging to the Teaching Board, is in charge of drawing up the meetings minutes with the Coordinator. In case of absence of the minute's secretary, the Coordinator will nominate another one before starting the meeting. The Secretary reports to the minutes a summary of the discussions, the motivated resolutions and the results of the votes. The secretary can be assisted, for the recording, by a member of the administrative staff of the Department designated by the Director. Each member can ask to report in full his/her intervention in the minutes, in which case it will provide the written text to the Secretary during the session. The report is published electronically in a special area on the University website accessible to members of the Teaching Board.

10. The PhD Teaching Board is responsible for the approval of the PhD research topics, subject of the final dissertations, and appoints one or more Supervisors for each student.

11. The PhD Teaching Board implements all the tasks defined by the "University Regulations" Art. 12, to which reference is made. The PhD Teaching Board, with a specific resolution, may partially entrust the implementation of its tasks to the Executive Committee.

12. The minutes of the Board's meetings are transmitted by email to all the members and considered as approved a week later, following the formula of tacit consent. If by the above deadline any amendments are proposed, mandate is given to the Director to include the same in the minutes and to start a new approval procedure (via email) always under the rule of tacit approval. Minutes are considered as approved and decisions validated whenever the number of negative votes is less than the majority of Board Members. In case of disagreement of the Board members or if any arguments arise, discussion and approval of the proceedings is postponed to the subsequent meeting.

13. Whenever the Teaching Board is called to discuss pressing issues or take urgent decisions by a close deadline and the matter cannot be immediately discussed in a Board meeting or postponed to next planned meeting, the Director may convene a Distance meeting. In such cases the Director will circulate by e-mail the proposal and all the information needed for a proper appraisal to the Board members who are called to express



**INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING
INTERNAL REGULATIONS**

their unequivocal vote (YES/NO) by a set deadline. The proposal is approved upon positive reply of the majority of Board members. Decisions taken are immediately implemented.

Art. 7 – The Director

1. The Director is elected by the PhD Teaching Board among full-time professors of first level, or in the event of unavailability, among second level professors, members of the Teaching Board and operating at University of Trento. Director carries out the tasks set out by the University Regulations art. 13 to which reference is made.

Art. 8 – The Executive Committee

1. The Executive Committee is composed by 6 professors and/or researchers, elected by the Teaching Board, and by the School Director, who is appointed Chair of the Committee.
2. The Executive Committee assists the Director in implementing the tasks defined by the University Regulations, art. 14. It adopts decisions on assigned subjects and domains and reports to the Teaching Board on the activities performed.
3. Individual members of the Executive Committee can be appointed by the Director to execute specific functions needed to the achievement of organisational and management goals of the PhD programme.
4. The Executive Committee is in charge for the period corresponding to the term of office of the Director.
5. In the event of resignation of a member of the Executive Committee, termination or hindrance lasting more than three months, the Director summons an election for his or her replacement. The term of office of the new member will follow the deadline of the Executive Committee.

Art. 9 – The Secretariat

1. The Director is assisted by the staff of Department in charge of carrying out the administrative tasks connected to the implementation of organizational activities in particular with regard to drawing up reports and documentation, organization of selections, annual examinations and final exams, relationships with other University offices.



**INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING
INTERNAL REGULATIONS**

2. The staff of the Secretariat may thus be invited to attend the Board's meetings with secretarial reporting functions without voting right.

Art. 10 – The Supervisors

1. For each of the PhD students admitted to the PhD programme, the Teaching Board identifies a Supervisor and one or more co-supervisors chosen on the basis of their skills in the specific research topics also under suggestion of the managers of the research programs or of the external bodies that fund the scholarships. The Supervisor or co-supervisor (s) can also be identified externally to the Teaching Board, but at least one of them must belong to the academic field and at least one of them must belong to the Teaching Board.
2. The Supervisors are in charge of the PhD student's guidance and inclusion in the Doctorate life and research activities and undertake to mentor the student in planning and drafting the individual Study programme.
3. The Supervisors mentor the PhD student, by assisting him/her in defining the study plan, guiding him/her in the research activities, monitoring academic activities and behavioural standards – including basic rules, principles of the PhD programme as founding values for scientific and professional growth.
4. The Teaching Board can revoke the Supervision assignment in case of non-fulfilment. If the Supervisor is a member of the Teaching Board as described in art. 7 par 1 items c) and d) of these Regulations, s/he will lose this position in the Board.

Art. 11 – PhD Admission - Requirements and procedures

The admission requirements to the PhD programme are those envisaged in accordance with the current University Regulations for Doctoral programmes, according to the terms and deadlines expressly specified in the call for admission.

Art. 12 – Educational activities

1. A number of educational activities are organised every year. A full description is provided in the student manual ("Handbook of studies") as described in art. 13. Besides, additional courses, seminars, meetings and



**INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING
INTERNAL REGULATIONS**

events related to the research topics of the Doctoral programme, can be organized along the academic year in collaboration with external partners upon invitation to participate by the PhD Secretariat.

Art. 13 – Student Guide / Handbook of studies

1. The "Handbook of studies" is approved by the Teaching Board at the beginning of each academic year and published online on the PhD website.

The Handbook contains practical information on the PhD programme and related educational activities.

In particular, the Handbook contains:

- indications regarding the overall number of credits by typology to be achieved within the third year;
- a list of PhD courses and educational activities offered;
- a detailed description of each course and related credits (Syllabus);
- assessment and verification methodologies for credits recognition.

Art. 14 – Annual assessment and final examination

1. The annual admission of PhD students to the second and third years of the PhD programme, is based on a public seminar given by the Doctoral student on the research topics of his/her final Dissertation. These examination meetings are public and the Examining Commission is composed by two members of the Teaching Board not including the Supervisor and the co-Supervisors, who are anyway requested to make available to the commission a brief evaluation of the candidate's activity before the meeting. The Candidate is assessed on the basis of research contents and level of advancement of the same, but also on subject mastering and presentation skills and quality. If the applicant is abroad for research related reasons s/he may ask to have a videoconference examination.

2. For the admission to the third year, students are also required to have written at least one scientific article (already published or at least submitted for publication) in international scientific journals listed in WoS , SCOPUS, or PubMed databases.

3. The PhD Teaching Board establishes the formal admission by discussing and/or approving the report of the Examining Commission and the indications of the Supervisor.



**INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING
INTERNAL REGULATIONS**

4. Following the positive evaluation by the Teaching Board, PhD students must enrol for subsequent years within the terms communicated by the competent offices and published on the University website, under penalty of forfeiture, with consequent closure of the academic career, except for documented reasons.

5. The denial of admission to the second or third year will cause the permanent exclusion from the PhD programme and the suspension of related scholarships. To this end the Teaching board will examine the student research activities and expected results.

6. The admission to the following year can be “with reservation”, i.e. conditioned to the full achievement of the requirements within a date set by the Teaching Board. The fulfilment of these requirements will be verified by repeating the admission exam within few months (typically two or three) from the first exam taken. If the reservation is not dissolved within the indicated terms, the Teaching Body can decide to not admit the student to the following year and exclude him/her from the Doctorate programme.

Art. 15 – Evaluation of the doctoral thesis: terms and extension

1. In order to obtain the title of PhD, the student must submit, by the end of the last year of the course, an application for admission to the thesis referee procedure and take an exam, like the one described in the previous article 14 paragraph 1, which enables the student to take the final exam. The Supervisor is required to submit to the examining committee, composed of at least two members of the Teaching Board excluding the Supervisor and the Co-supervisor (s), an assessment of the quality of the activity carried out by the candidate throughout the entire PhD program. If the applicant is abroad for research related reasons s/he may ask to have a videoconference examination.

2. For the admission to the final exam, students are also required to have written at least two scientific articles (already published or at least accepted for publication) in international scientific journals listed in WoS, SCOPUS, or PubMed databases. Given the scientific relevance of the diffusion of research results, PhD students are encouraged to participate to international conferences for presenting their research results, if possible, with oral presentations. In the presence of at least one scientific article, the admission to the final exam could be taken in consideration and possibly accepted by the Teaching Board even in the absence of the aforementioned requirements, only if such failure is justified in written form by the Supervisor (as part of his/her assessment of the candidate) and by the student well in advance (at least 4 weeks) with respect to the date of the exam. The



**INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING
INTERNAL REGULATIONS**

above documents will become part of those to be sent to external evaluators and to the members of the Examination Board in charge of final examination.

3. The Teaching Board upon the Supervisor and the Examining Commission's evaluation, as described in the above par. 1 and after verifying the credits achievement (see art. 12) and the research results (described in the above par. 2) admits the student to the final exam. In case that the PhD student has achieved insufficient results, the Teaching Board can decide to admit the student "with reservation" (if the shortcomings are resolvable in a short time and compatible with the deadline for submitting the thesis), or to not admit him/her to the referee procedure, excluding him/her from the Doctorate.

4. For students admitted to the final exam, upon Supervisor's indication, the Teaching Board identifies two or more evaluators (hereinafter referred to as "referees") choosing them from highly qualified professors and researchers from Italian or foreign institutions, external to the university and to any other subjects competing for the Doctoral programme. At least one of the evaluators must have the qualification of university professor or researcher. The referees have the task of expressing, within thirty days after the receipt of the thesis, a written analytical judgment about the thesis and of proposing the admission to the public discussion or the postponement for a period no longer than six months in case significant additions or corrections are necessary.

5. By January 31st of the year following the conclusion of their doctorate's cycle, students are requested to send the thesis draft to the referees, as well as a report of the activities developed during the Doctoral programme and about the publications.

6. For students who have benefited from a suspension, under the terms provided for by the University Regulations, the aforementioned deadline for admission to the referee procedure and the submission of the thesis must be deferred for a period equal to the duration of the suspension.

7. In case the PhD candidate is unable to submit the Thesis work by the due deadline for justified reasons, in accordance with the Supervisor s/he may ask the Academic Board to defer the thesis submission to the "referees" for a maximum of one month beyond the deadline. Such a request, to be transmitted to the Academic Board at least four weeks before the deadline, may be accepted on the basis of scientific rationale and overall opportunity.

8. In compliance with the Ministerial Decree 226/2021 and the current University Regulations, it is introduced the possibility of an extension for a period not exceeding twelve months with respect to the regular duration of



**INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING
INTERNAL REGULATIONS**

the doctoral cycle of the application for admission to the referee procedure. Candidates wishing to benefit of this extension must submit a reasoned request to the coordinator at least thirty days before the end of the last year of the course.

9. The authorization to exceed the deadline for the submission of the thesis does not entitle to further assignments of scholarships.

Art. 16– PhD awarding

1. The Examination Committee in charge of the final exam for awarding the PhD title is appointed by the Rector upon indication of the Teaching Board or, by delegation, the Executive Committee, in accordance with the University Regulations.

2. The examination is held in front of the Examination Committee and consists in the public discussion of the final thesis within six months from the conclusion of the Doctoral programme, except in case of extension as described in the previous art. 15, par. 8. The aforementioned six-month term is extended if the deadline deriving from the postponement indicated by the referees for any further detailed revision of the thesis is not compatible with it.

3. If one or more commissioners are prevented from physically attending the session, the Commission may gather in a videoconference meeting. The presence of at least two members who perform the function of President and Secretary is mandatory.

4. PhD candidates are requested to send their thesis to the members of the Examination Committee well in advance (at least 3 weeks) with respect to the date of the examination.

Art. 17– Patent rights

1. Patent and copyright rights for inventions resulting from scientific research, and carried out by using financial resources and facilities provided by the University of Trento, are governed by the University Patent Regulations.



**INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING
INTERNAL REGULATIONS**

Art. 18 – PhD Student Rights and Obligations

The PhD Student is bound to produce periodic reports on the performed activity, by the deadlines set by the Teaching Board and listed in the Handbook of Studies. The reports shall be submitted for approval by the Director or the Academic Committee or by a specifically appointed Committee. The evaluation criteria include relevance and adequacy of academic activities followed, the scientific activities conducted on-site and off-site and compliance with the rules and obligations arising from participation in the PhD programme. In addition, upon Supervisor's request, the Director can arrange a mid-term examination to check the progress of the research activities of the candidate in front of a committee as described in paragraph 1 of Art. 14 of this Regulation. In case of failure to submit the report by the deadlines, or in case of non-approval of the same, or in case of negative outcome of the mid-term examination above mentioned, the Teaching Board may decide for the scholarship suspension and the student exclusion from the PhD programme in accordance with Art. 25, paragraph 4 of running University Regulations for Doctoral Programmes.

In addition to the PhD student rights and duties indicated in Art. 25 of the University Regulations for Doctoral programmes, each student is required to comply with the Honour Code (Annex 1) of the Doctoral programme in Materials, Mechatronics and Systems Engineering.

Each student must sign a confidentiality agreement (Non-Disclosure Agreement - Annex 2) relating to any confidential information possibly acquired during the stay at the facilities of the Department of Industrial Engineering

4. In addition to Art. 26 of the University Regulations for Doctoral programmes, the following activities must be authorized by the Supervisor in advance:

- Submission of the study plan and any subsequent amendments thereto;
- Submission of the thesis to the referees and successively to the members of the Committee.
- Submission of manuscripts to scientific journals;
- Submission of abstracts in scientific conferences and workshops;
- Participation in scientific conferences and workshops;
- Submission of scientific projects to funding companies;
- Participation in educational and research activities, organized by the University of Trento or other bodies, other than those listed in the study plan approved by the Teaching Board



**INTERNATIONAL PHD PROGRAMME IN MATERIALS, MECHATRONICS AND SYSTEMS ENGINEERING
INTERNAL REGULATIONS**

- Limited external work activities

5. For the authorization of external work activities, please refer to the University Regulations (Article 26, paragraph 2.b)

Art. 19 – Final and referral rules

1. This Regulation complements, in any matters expressly provided, the provisions established by the existing Italian law and by the University Regulations, which in any case fully and directly apply.

2. This Regulation applies to students in the XXXVIII cycle and subsequent ones. To students antecedent the XXXVIII cycle is applied the previous Regulations approved by the Departmental Council of the Industrial Engineering Department on October 30, 2019, with the exception of Article 14, 15, 16, 17 and 18 of this Regulations Par. 2, which applies to active students from its entry into force.