

Record of changes		
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5.0	Change to regulations in guide	19/10/2021

Foreword

Royal Decree 1393/2007, of 29 October, establishing regulations for university teaching, amended by Royal Decree 861/2010, of 2 July, stipulates that the aim of official master's degree courses is for students to receive advanced or multi-disciplinary training for the purpose of achieving an academic or professional specialisation or undertaking research work.

Article 15.2 of Royal Decree 1393/2007 expressly states that the master's degree thesis (hereinafter MT) must form part of the curriculum. Furthermore, Article 15.3 refers to the preparation and defence of the MT, indicating that it should account for between 6 and 30 credits.

The MT should be prepared in the final stage of the course and should be designed to assess the competences linked to the degree.

The School of Chemical Engineering master's degree thesis guide expands upon Article 16 of the URV teaching regulations (*Normativa de docència*) in aspects that are specific to the centre. The parties involved (students, teaching staff and departments) can find details for the correct administration of the MT in this guide, in the MT Coordination Guide (*Guia de Coordinació del TFM*) and the MT Student Guide (*Guia de l'estudiant del TFM*).

Article 1. Purpose of the MT

- 1.1. The MT is an independent, individual assignment that allows the student to comprehensively demonstrate the learning and competences acquired during the master's course.
- 1.2. The type of project considered suitable to be defended as an MT depends on the extent to which the master's degree course is oriented towards professional work or research, and on the field it addresses. The description of each master's degree course must be aligned with the verification report for each discipline and must appear in the relevant teaching guide.
- 1.3. Work groups, which may be intra-disciplinary or inter-disciplinary, can prepare MTs as described in point 1.2, provided that they meet the following conditions:
 - a) The MT must include one part prepared individually by each member of the group. Individually prepared contributions must be specified in the description of the project as distinct from the general section attributable to the group as a whole.

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- b) Each individual contribution must have sufficient scope and depth for the members of the group to be assessed individually.
 - c) The assessment of the MT will include a separate assessment of each student's individual contribution, which will be based on the part referred to in the previous point and an assessment of the student's contribution to the common part of the project.
- 1.4. The professional or research orientation of the master's courses in the centre and the number of credits assigned must be aligned with the verification report for each discipline and must appear in the relevant teaching guide.
 - 1.5. The MT can be completed as part of the URV's Service Learning Programme.
 - 1.6. A professionally oriented MT can be prepared at a company, research institute or other institution outside the department (hereinafter, a company) or, in exceptional cases as part of a research group in a URV department. For this to be possible, the student must meet the following requirements:
 - a) Two thirds of the hours assigned to the MT must be completed in person at the company (ECTSx25x2/3).
 - b) The company must propose a tutor (hereinafter, the external tutor) for the period spent with the company, who must comply with the requirements for monitoring and assessment for the subject, using detailed information provided by the URV internal tutor.
 - 1.7. The MT may be combined with an internship in those master's courses that offer one. The following conditions must be met:
 - a) The student must be enrolled for both the MT and an internship at the beginning of the period spent with the company.
 - b) All the hours assigned to the internship must be completed in person at the company (ECTSx25).
 - c) Two thirds of the hours assigned to the MT must be completed in person at the company (ECTSx25x2/3).
 - d) The company must propose a tutor (the external tutor) for the period spent with the company, who must comply with the requirements for monitoring and assessment of both subjects, using detailed information provided by the URV internal tutor(s).
 - e) The combination of TM and internship implies that the work to be carried out by the student allows the latter to develop all the competences corresponding to both subjects.
 - f) Assessment of the two subjects must be performed separately and must therefore comply with the requirements established for each of them.

Article 2. Organisation of the MT

- 2.1. For each master's course, the following are responsible for setting guidelines and deciding on all academic matters related to the MT:
 - The centre's MT coordinator, designated by the Director of the School of Chemical Engineering. The MT coordinator's functions are described in section 2.2.
 - The master's degree coordinator.
 - The coordinator of the MT for each master's degree. Their responsibilities are listed in section 4.3 of this guide.

2.2. Regarding transversal issues that affect all master's degrees, the School of Chemical Engineering MT coordinator can organise a meeting of all those referred to in section 2.1 in order to:

- Decide on modifications to the administration and management of the MT.
- Establish criteria that will govern the MT and its assessment with regard to external accreditation (AQU and/or international organisations).

2.3. If the MT is prepared at an institution external to the School of Chemical Engineering (typically, a company), as described in section 1.6 of this guide, or in conjunction with an internship, as detailed in section 1.7, it is indispensable for the URV and the company to sign a framework agreement, plus a specific agreement or appendix detailing the exact conditions under which the MT will be prepared.

Article 3. Enrolment and periods for defending and assessing the thesis

- 3.1. The MT is a subject that brings together the competences of the master's degree course. Nevertheless, as master's degrees equivalent to 60 ECTS are completed in one academic year and students have to enrol for the complete course at the beginning of the academic year, they will need to enrol for the MT at the same time. Those studying part-time can enrol for the MT in the second academic year.
- 3.2. To pass the MT, students must have passed all the subjects in the course.
- 3.3. The periods for presenting, defending and assessing the MT will appear in the virtual campus for the subject. The subject coordinator is responsible for publishing these periods, as specified in point 4.2.
- 3.4. There are two calls for the MT, as established in the teaching guide for each course.
- 3.5. The student can ask for the first call to be brought forward to December/January. In the case of master's degrees equivalent to 90 credits, where the MT is scheduled for the first semester, students can ask for the second call to be put back to September. In all cases, such requests must respect the conditions and procedures established in the URV's regulations for bachelor's and master's degrees.

Article 4. Academic responsibility

4.1. Centre management appoints the School of Chemical Engineering MT administrator and coordinator for each master's course.

The distribution of credits by the departments involved, the scheduling of the subject's management processes, and the teaching staff involved will be decided in accordance with the MT coordination guide for each course. The distribution of credits for the MT subject will be in accordance with:

1. Article 7.3 of the teaching regulations, according to which the teaching load assigned (number of credits per student) depends on the number of ECTS for the MT.
2. The subject coordinator has 0.1 credits/student taken from the MT tutors' credits. According to the course:
 - a. The assignation of 1.2 credits/student, as corresponds to an MT with a teaching load of 21 to 30 ECTS, is distributed as follows: 1.1 credits/student for the tutor and 0.1 credits/student for the subject coordinator.

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- b. The assignation of 0.9 credits/student, as corresponds to an MT with a teaching load of 11 to 20 ECTS, is distributed as follows: 0.8 credits/student for the tutor and 0.1 credits/student for the subject coordinator.
 - c. The assignation of 0.6 credits/student, as corresponds to an MT with a teaching load of 6 to 10 ECTS, is distributed as follows: 0.5 credits/student for the tutor and 0.1 credits/student for the subject coordinator.
- 4.2. The responsibilities of the MT subject coordinator are as follows:
- a) To draw up the teaching guide in accordance with applicable current regulations. The guide must be complete when enrolment takes place and available to students in the subject's virtual space when enrolment starts.
 - b) To oversee the teaching of the subject and the coordination of all MTs.
 - c) To gather proposals for MTs.
 - d) To review and accept or reject a proposal for an MT by a student they tutor, as specified in Article 1.
 - e) To oversee the allocation of assignments to all students enrolled for the subject.
 - f) To organise examining panels for the public defence of each thesis.
 - g) To ensure that grades are entered in the records for the subject within the time limits laid down.
 - h) To deal with any significant issue related to the MT.
 - i) To prepare the MT Coordination Guide, specifying the internal MT management procedure for each master's course, which must be published in the subject's virtual space. It must include:
 - i. Criteria for the allocation of students in each department involved and a calendar for informing departments of MT tutoring requirements.
 - ii. Procedures and schedules to be followed by departments to assign MT tutoring responsibilities to staff.
 - iii. The tutoring system used for each course's MT.
 - iv. Breakdown of credits among the departments involved, schedule for the subject's management processes, and the teaching responsibilities of each participant.
 - v. Criteria for assigning or choosing MT themes.
 - j) To prepare the MT Student Guide, specifying procedures to be followed by students taking each master's course, which must be published in the subject's virtual space. It must include:
 - i. Location of the information available (website, virtual space, access to email).
 - ii. MT management structure (subject supervisor, tutor, administration, etc.).
 - iii. Dates for submitting, defending and assessing the MT.
 - iv. Minimum number of hours of dedication.
 - v. Procedure for requesting and assigning an MT.
 - vi. Monitoring the preparation of the MT.
 - vii. Rubric and criteria for assessment.
 - viii. Special conditions.
 - k) To hold a meeting to inform students about the procedure for MTs.
 - l) To ensure that the structure, format and management of the MT meet the quality standards for each course and the requirements of section 7 in this guide.

Article 5. Thesis management

- 5.1 The MT will have an internal tutor assigned by one of the departments participating in the course, proposed by the MT coordinator.
- 5.2 The responsibilities of the internal tutor are as follows:
- a) To facilitate and stimulate the learning process.
 - b) If the master's degree coordination guide so indicates, to provide a subject for the MT, as indicated in Article 1, if the student does not already have a proposal.
 - c) If the MT is to be prepared externally, to oversee and accept or reject a proposal from a company or partner institution.
 - d) To carry out continuous monitoring of the MT and ensure that work progresses satisfactorily.
 - e) If the MT is to be prepared externally, to inform the external tutor about their responsibilities (see point 0), the conditions for assessment and the MT Guide, so that they can act accordingly.
 - f) To assess the student and inform the MT supervisor promptly via appropriate means.
- 5.3 If the MT is being prepared at a company or partner institution, the external tutor has the following responsibilities:
- a) To facilitate and stimulate the learning process.
 - b) To carry out continuous supervision of the MT and ensure that work progresses satisfactorily.
 - c) To be aware of and participate in the assessment of the MT being prepared by the student tutored, as indicated in the MT student guide.
 - d) To submit the assessment to the internal tutor on the date stipulated in an agreed format.
 - e) To discuss any aspect of the MT with the internal tutor as necessary, especially if any conflict should arise.

Article 6. Assignment or choice of subjects

- 6.1. The procedure for assigning subjects is published in the virtual space for each master's degree or on the website, as indicated in the MT coordination guide and the MT student guide for each course, taking the duration, scope and objectives of the master's into account. In all cases the student's freedom and preferences must be respected when a project for the MT is being selected, although the choice must be approved by the subject coordinator.
- 6.2. If the centre offers MT projects that can be carried out in companies, without any prior links to a particular student, the procedure for assigning them must take the company's preferences and the student's academic record into account, as detailed in Annex 1. In this case, the company can propose an external tutor, whose role will be as described in the conditions set out in sections 1.6 and 1.7.
- 6.3. MTs offered as part of the Service-Learning Programme are subject to the conditions of section 6.1, if proposed by the student, or section 6.2 if proposed by a company or external organisation.

Article 7. Submission and defence

- 7.1. The formal requirements for presenting theses and the procedure for submitting them are set out in the MT student guide for each discipline, allowing for the particular characteristics of each course.
- 7.2. In all cases, before the MT is presented and defended, it must be approved by the tutor (Article 2.5 of the Teaching Regulations).

- 7.3. If the MT is prepared externally and is subject to conditions of confidentiality, an agreement must be signed which includes at least the points detailed in Annex 2 to this guide. Students who prepare an MT involving confidential information must inform their tutor accordingly. Before submitting the thesis, the student must present the confidentiality agreement, duly completed, stamped by the partner organisation that considers itself the owner of the confidential information and signed by an authorised person in the organisation, the Director of the School of Chemical Engineering, the tutor and the student.
- 7.4. The defence of the MT is personal and public and must take place before a panel consisting of, at least, a chairperson and two members. The composition of such panels is specified in the MT student guide. The panel will issue a report on the defence of the thesis. Its assessment is final and cannot be revised, except in the case envisaged in Article 7.11. The panel is appointed by the MT supervisor, who also allocates MT projects to teaching staff, according to the dates specified in the official examination calendar, except in the case of the Master's in Chemical Engineering, where students themselves are responsible for the allocation of MTs. The panel's chairperson is normally a senior member of the MT teaching staff for each discipline.
- 7.5. In the case of an MT subject to a confidentiality agreement with a partner company, the defence must respect said agreement (Annex 2), this point being expressly specified.
- 7.6. An MT in Occupational Risk Prevention may be presented in Catalan or Spanish. MTs in Environmental Engineering and Sustainable Energy, Chemical Engineering, Technology and Engineering Management and Nanoscience, Materials and Processes must be presented in English. MTs in Energy Conversion Systems and Technologies are normally to be presented in English, but Spanish-speaking students may present them in Spanish. All other School of Chemical Engineering MTs may be presented in Catalan, Spanish or English.
- 7.7. MTs may also be presented in French, German, Italian or Portuguese if the student submits a request to the MT supervisor, who may approve or reject it, depending on the panel's ability to judge theses in these languages. Exceptionally, requests may be submitted for theses to be written and defended in another language, the MT supervisor being responsible for approving the request or otherwise.
- 7.8. Exceptionally, when a formal, duly justified request has been submitted, signed by the student and the internal tutor, centres may authorise the virtual defence of a thesis, provided that appropriate technical, administrative and economic conditions can be met.
- 7.9. The defence of theses for the Interuniversity Master in Computational Fluid Mechanics is virtual. Exceptionally, when a formal, duly justified request has been submitted, signed by the student and the internal tutor, the centre may authorise an in-person defence at the School of Chemical Engineering.
- 7.10. The defence of MTs for the Master's Degree in Energy Conversion Systems and Technologies may be virtual or in-person.
- 7.11. The final assessment may be reviewed if the student so requests, in accordance with URV academic regulations.

Article 8. Depositing theses and institutional repository

- 8.1. MTs are deposited in the URV institutional repository. The MT coordinator must make facilities available in the subject's virtual space for the student to submit the MT to the repository, in accordance with URV regulations.
- 8.2. MTs with grades of 8 or above which are not subject to confidentiality agreements, must be available to view and consult freely in the URV institutional repository, for use in teaching, research or personal study.
- 8.3. In the case of an MT subject to a confidentiality agreement with a partner company, the documentation deposited must respect said agreement (Annex 2), this point being expressly specified.

Article 9. Intellectual and industrial property

- 9.1. Intellectual and industrial property rights for TMs are regulated by the terms and conditions of current legislation.
- 9.2. When TMs are used for any purpose whatsoever, the author's name, the nature of the study and the connection with the URV must be mentioned.

Final provisions. Effective date

This guide will come into force when approved by the centre's governing board.

Annex 1

Compliance with School of Chemical Engineering-Work Experience methodology

A proposal to offer a master's thesis (whether or not linked to an internship) involves a series of bilateral measures by companies and the School of Chemical Engineering, announced when the offers are made known. Companies must ensure fair treatment of applicants when awarding a project to one or another, taking into account their academic record and the company's preferences and criteria. The procedure consists of two parts: pre-selection, based on the student's academic merit and competences, after which it is decided which of the participating companies have priority. This Annex explains how this is done.

First, the applicants (students who wish to take part in the allocation of projects to companies) must submit the following information:

- Academic record.
- Additional information specified in the subject's virtual space.
- A prioritised list of offers from companies.

The School of Chemical Engineering carries out a pre-selection process to reduce the number of candidates who are to proceed to the assessment stage, for which each company is responsible. It is assumed that M offers are available. The following aspects will be taken into account in this stage:

- i. 60%: the student's academic record and practical experience related to the application of knowledge of engineering.
- ii. 40%: other aspects related to social competences that the subject supervisor has to detail in the instructions for the call.

When the School of Chemical Engineering has drawn up the prioritised list of candidates, the list of preferred companies prepared by each applicant is considered to determine which candidates will be assessed by each company.

The allocation is determined as follows:

- a) Each applicant is interviewed by three companies and each company interviews three applicants.
- b) The first candidate is assigned the first three companies in his/her list of preferences, so that the companies' teams can assess him/her.
- c) This is then done with the second and third candidates. After the third candidate, the company may have the three interviews assigned. At that point the option of being interviewed by that company is blocked and candidates are assigned the next company in their order of preference. The same procedure is applied for successive assignments.
- d) By means of interviews or other selection procedures considered appropriate, the company draws up a list of the three candidates in order of preference and sends it to the School of Chemical Engineering. This list may include students who have been rejected by the company.
- e) The School of Chemical Engineering receives the lists from the companies and makes the final assignments as follows:
 - i. The School of Chemical Engineering takes the first candidate on its list and checks which companies that have interviewed him/her have put him/her in first place.

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- If there is only one company, the student is assigned to it automatically.
 - If there is more than one, the student is assigned to the company appearing highest on his/her list.
 - If there are no companies, the candidate proceeds to round two.
- ii. The School goes on to the second candidate and proceeds in the same way, after eliminating the assignment just made (that company is no longer an option), and then consecutively with all pre-selected candidates.
- iii. Candidates not assigned in the first round proceed to the second round and the options (companies) already assigned are eliminated. The system applied previously is repeated, focusing on companies' second choices. The process is completed with a third round of reassignments.

Companies can reject the preselected candidates assigned to them. If, as a result, the company has no candidate assigned at the end of the process, an applicant is proposed from those still unassigned (supposing that there are more students than MT projects initially offered), the same process being applied, based on the preferences specified.

If a company wishes to interview more than three candidates and informs the School of Chemical Engineering accordingly, this will be borne in mind in the allocations.

If a company proposes more than one MT project, each one will be considered separately.

ANNEX 2: MASTER'S THESIS CONFIDENTIALITY AGREEMENT

AGREEMENT BY AND BETWEEN THE FOLLOWING PARTIES:

The student, Mr/Ms with identity card number

Dr holder of identity card number as Dean or Head of School, Centre or Faculty..... based at, as delegated by the Rector of the Universitat Rovira i Virgili, with tax identification number Q-935003-A, based at Carrer Escorxador s/n, 43003, Tarragona;

AND

Mr/Ms holder of identity card number as legal representative of with tax identification number , based at

The aforementioned parties agree to the following

CLAUSES

ONE: Students who wish to complete a Master's Thesis (MT) that includes confidential information must inform the supervisor of the MT and must attach the present agreement to their applications for an MT title and supervisor. The agreement must be stamped by the partner entity that is the owner of the confidential information and signed by an authorised representative of this entity. If the owner of the company is an individual, he/she or their legal representative should sign the agreement.

TWO: Confidential information is that which is recognized as such by a legally established entity before work is undertaken on the MT that is the object of these regulations. The confidential information can be about methods, procedures, models, techniques, circuits, software, etc. or anything else that is susceptible to legal protection (see above).

THREE: There will be two versions of any Master's Thesis that contains confidential information: the full version and the abridged version. The full version will make it clear exactly which information is confidential and it will be the version that is submitted to the members of the examination panel. The abridged version will make it clear where information has been removed to preserve the continuity of the thesis. This version must be explicitly approved by the collaborating entity and will be the version that is deposited in the institutional repository of the URV and, if appropriate, in the repository of the department after the MT has been defended. Both versions will make clear their confidential nature and will state the name and full address of the entity or individual who owns the information. Any person or entity that wishes to become party to the confidential information contained in a Master's Thesis must contact the owner of the information.



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FOUR: The members of the examining committee will have the full version of the MT both before and during the oral examination. Likewise, they will be aware that some of the information they are to assess is confidential, and they will inform all those who may attend the public oral examination to this effect. The defence of the MT will continue to be public and the oral presentation, supporting graphics, demonstration, etc. will be made using the full version. However, any of the parties involved may request that public attendance be restricted.

FIVE: Once the students have been assessed by the examination panel, the panel secretary will return all the full versions of the documentation, with the exception of one copy, which will be lodged with the secretary's office of the Department in order to resolve any complaints. Should any complaints be made, this copy will remain in possession of the secretary's office until they have been satisfactorily resolved. If the documentation is in electronic format, the members of the examining committee will destroy the versions of the documentation in full, once the student has been evaluated. The MT coordinator will keep a version for a maximum of 10 days in order to resolve possible complaints. In the event of any such complaint, the copy will be kept until the issue is fully resolved.

SIX: The intellectual property and industrial property rights of the MT are regulated by the terms and conditions of current legislation. If MTs are used for any purpose whatsoever, the author's name, the nature of the study and the connection with the URV must be mentioned.

SEVEN: The School of Chemical Engineering accepts no responsibility for the misuse of this confidential information, apart from any individual responsibility that it may give rise to.

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Head of
School/Centre/Faculty
Dean Faculty/School/Centre

Representatives of the
partner institution

Student

Approval of MT
Supervisor

(signature and stamp)

(signature and stamp)

Mr/Ms