



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA
CAMPUS DI RAVENNA

WACOMA GUIDELINES

for the

FINAL EXAM and PREPARATION of the
MASTER'S DEGREE DISSERTATION

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PART I: PROCESSES

1. Final examination: introduction

The final examination consists of writing a dissertation on a topic relevant to your studies, developed in an original way under the guidance of a supervisor. The dissertation will be discussed publicly during a specific final examination session in front of a Board.

The preparation of the dissertation includes two activities: a practical research activity plus a proper preparation/writing of the thesis for the dissertation. The work must be dedicated to advanced educational activities focusing on scientific research or technological advancements. These activities are to be conducted within a department or research laboratory of the University of Bologna.

The student undertakes an experimental, computational, and/or theoretical exploration within a cutting-edge scientific field. This work involves the advanced application of investigation methodologies specific to the chosen curriculum, deepening expertise within the specialized sector.

The research activity usually lasts for 3/4 months, corresponding to at least 450 hours (18 credits). The writing of the thesis and the discussion account for additional 18 CFU (94533 Final Examination).

Before starting the preparation activities, the student submits the form: “Request of the thesis project to the Council” at least 6 months before the expected date of the defence. *If the student has to change the research project, or its objectives, he/she has to submit an updated request.* Forms and modalities are available [here](#).

The graduation final grade is composed of the average and the points assessed by the Board at the end of the final examination session.

2. Roles

Supervisor

A candidate can apply for her/his/their dissertation only after having selected a faculty member as supervisor. Upon acceptance, this faculty member is acting as the *main supervisor*.

In the Italian academic system, the Supervisor is the Professor charged with the supervision of the research activities and draft of the candidate final dissertation. The student is encouraged to discuss the topic with their supervisor and to consider all suggestions, references, and guidance provided.

The main supervisor must be a faculty member of UNIBO whose research or teaching interests correspond as closely as possible to the subject of the dissertation and who is willing to follow the student. The supervisor can be identified within the group of tenured, non-tenured or contract-based professors.

However, he/she/they must be regularly active in the academic year of graduation of the student. If the supervisor does not teach in the WACOMA track, the co-supervisor or co-examiner must belong to Degree Programme Board.

Please note that a candidate may have a supervisor who teaches a course that is not included in their Study Plan. However, please note that the topic students wish to propose must fall within the professor's area of interest or expertise.

Co-Supervisor

The main supervisor can be assisted by one or more **co-supervisors** (based in Italian institutions or abroad). The co-supervisors can be **faculty members** affiliated either with the course of study, or with other degree programmes at the University of Bologna, and they may also be chosen **among external experts** (belonging to universities, external bodies, private institutions, public or private companies) and scholars who have specific skills and knowledge in relation to the dissertation project.

Opponent

He/she is appointed by the Council Board during the submission phase of the research project. The opponent must receive the final thesis in time to permit him/her to read the whole document. If possible, the opponent interviews the candidate before the discussion day to pose questions and give suggestions

In case one or more external co-supervisors are appointed, the candidate should inform them of the following requirements:

- they must maintain regular contact with the main supervisor throughout the preparation of the dissertation to monitor the student's progress;
- if they are unable to attend the final discussion in person, they must provide a formal written evaluation of the dissertation work. The document, addressed to the main supervisor and the dedicated Commission, will be considered in the final evaluation and must be submitted before the scheduled date of the final discussion.

3. Timeline for the preparation and final delivery

- Administrative part: gathering the relevant information.

The candidates are responsible for gathering all the relevant information about both the time schedule and the bureaucratic obligations related to the preparation and submission of the final dissertation (information present in the *Graduation Notice*). They can ask for support (if needed) from the *Segreteria* and the Programme Coordinator.

- Practical part: choosing a topic and finding a supervisor and a co-supervisor

A dissertation application should be submitted to the prospective supervisor within a period of **6 to 8 months** before the chosen graduation session. At **least 6 months** before the expected graduation day, the student has to submit the Thesis project to the Council Board. Candidate and Supervisor will discuss a possible topic for the thesis.

The supervisory faculty members then individually **discuss with the student** the research activities, the time schedule for deliverables, the steps required for the preparation of the dissertation, and any other issues regarding the application of the regulatory provisions.

NOTE: Besides the deadlines indicated in the *Graduation Notice*, **every other deadline is very flexible**, and it is to be agreed upon with the supervisor. Whenever you have a dissertation proposal and a supervisor in mind, reach out to him/her and start the process of your research together with him/her. The actual timetable and deadlines for data collection or bibliographic research, and for any following steps will be decided together with the supervisor!

3.1. Terms of delivery of the final document

The final version of the dissertation must be submitted to the main supervisor for a final review **no later than 30 days before the file upload deadline, or according to supervisor indications**. Once the dissertation is approved by the supervisor, the candidate is personally responsible for submitting it to the administrative offices of the Università di Bologna through the dedicated website. The dissertation upload can be repeated **until midnight, on the day of the deadline** (pay attention to the CET hours indicated); the last uploaded file remains valid.

4. Admission requirements

In order to graduate, students must have:

- completed all the **exams** in their Study Plan, and their final outcomes properly registered, including the 18 CFU for internship or research conducted in Italy or abroad;
- paid the tuition **fees**;
- uploaded the dissertation in the appropriate section of Studenti Online. The dissertation can be uploaded multiple times until the deadline. When uploading the dissertation, it is necessary to enter some keywords and a brief abstract;
- completed the **Alma Laurea Questionnaire** on Studenti Online (SOL).

NOTE: *The Student Administration Office will verify that all the requirements are met and will contact students in case of an issue, which allows for regularization before the final examination, if applicable: the verification of the requirements is carried out after the deadline of the graduation request and the upload of the pdf of the thesis on SOL.*

5. Graduation sessions and application

For each academic year there are – usually – seven graduation sessions available to the student after having completed the second year of the programme: June, July, September, October, December, February and March.

To submit the graduation application online, one must access [Studenti Online](#) within the deadlines set for the Graduation notice, and respect the specific requirements as stated in the “[graduation notice](#)”, published on the Final Examination section of the website. In the notice, students can find the following deadlines:

- (1a) the **request for graduation** admission and the payment of the graduation fee (€32);
- (1b) Late submission graduation request: if you miss the previous deadline, you can still ask to be

admitted to the graduation session. The delayed request bears an additional cost of €100 (€ 132 in total);

(2) Expiring date for requirements, by this deadline students must:

- Have uploaded the dissertation in PDF format on the application
- Have paid the taxes due
- Have taken all the exams required by your study plan. The grades of the exams have to be already recorded.
- Have completed the Alma Laurea Questionnaire (you find it online, on the application)

(3) Expiring date dissertation upload

Finally, the deadline for the dissertation approval of the Supervisor: after uploading the dissertation, the Supervisor must approve it. Without the Supervisor's approval, the student can not graduate.

NOTE: Deadlines are peremptory, there is no possibility to ask for a derogation.

Students not able to graduate within the given sessions will become **'fuori corso'** (overtime student) and will have to pay taxes for the subsequent year of the Master's degree programme. This will also be considered by ER.GO, leading to a possible reduction in the scholarship amount after the standard two-year study period.

NOTE: Remember that the **last opportunity to modify the Study Plan** before the graduation is during the second time window of the second year **"in corso"**.

Key information about the Final Examination and its modalities can be found:

- on the [final examination section](#) on the WACOMA website;
- on the [UNIBO website](#).

PART II: PREPARATION OF MASTER'S DEGREE DISSERTATION

6. Scope of a master's dissertation

A master's dissertation **identifies** and studies a proposition about observed phenomena and relevant theories that fall within the domain of subjects available in the Study Plan. A dissertation is based on the definition of a thesis aim. The student reaches the thesis aim by using appropriate empirical or theoretical methods of analysis, attempting to provide an answer in a way that is both rational and properly structured. The proposition that emerges from the dissertation represents the outcome of the study efforts carried out by the candidate.

6.1 Choosing a topic and a discipline

To choose a topic for the dissertation, it is recommended to start from fields of interest that students have been learning during the course and would like to pursue in the future. In any case, the topic is

always decided and discussed together with the supervisor, who will be available to guide students throughout the whole process.

When choosing a topic, it is really important to also choose the methodological approach that will be used to investigate such topic. The approach is usually suggested by the supervisor. Even though, in general, the candidate is expected to make proposals about the overall organization and structure of the dissertation project, and the supervisors should provide appropriate comments and suggestions until an agreement about the dissertation structure is reached.

6.3 Preliminary insights into the methodology

Once the student has agreed on the thesis' topic with the supervisor, he/she/they may start carrying out the research in order to understand the "status quaestionis", the overall state of research on the topic.

Possible elements of the Table of Contents:

- Presentation of the topic
- Presentation of the methodology: inform the reader on the methodology adopted
- Previous research and methodologies adopted by the authors of this research
- Introduction: inform the reader on the reasons behind your research. Also introduce your hypothesis for the conclusion
- The data: depending on the subject-matter
- Analysis of data: the body of the dissertation. In case of a compilatory thesis, other authors' opinion might be presented in a critical way.
- Demonstration of the hypothesis
- Conclusion: a recap of the research and the conclusive remarks, reference to the initial hypothesis.

6.4 Ethical rules

The relationship between the candidate and the supervisor should be based on principles of **professionalism, transparency, and mutual respect** in compliance with the general regulatory framework of the University of Bologna. Both the candidate and the supervisory faculty are expected to **exchange timely communications** during the preparation of a dissertation, and to comply with the duties arising from their **commitments and respective roles**. The candidate should provide the supervisors with bi-weekly updates about the progress of the dissertation work.

7. Preparing the Final Dissertation: in Italy, abroad, or during an internship

When deciding on how to organize the preparation for the Final Dissertation, a student has to take into consideration the different options that are available. Depending of the choose, the student has to submit one or more forms (read carefully the instructions available on the [WACOMA website](#)):

Activity	Where	Economic Support
(87955) Preparation for the final examination		
The preparation of the final examination is devoted to activities of higher formation, in the field of scientific research or technological advances, to be carried out in a Department/research laboratory of the University of Bologna.	Within the UniBO's facilities	Not provided

(94534) Preparation for the final examination abroad		
The preparation of the final examination abroad is devoted to activities of higher formation, in the field of scientific research or technological advances, to be carried out of Italy.	University, Research center, Association, Company, outside Italy	Grant by applying to Erasmus+ study/ Overseas/ Scholarship by the Department BiGeA
(94535) Internship abroad for the preparation for the final examination		
Through this work placement abroad, the student acquires data and carries out activities related to the preparation of the final examination. He/she develops skills of judgement and evaluation and acquires knowledge in the use and management of specific software or hardware tools related to the work covered by the final examination.	University, Research center, Association, Company outside Italy	Grant by applying to Erasmus+ placement/ Fieldwork, <u>but</u> also not provided
(94536) Internship abroad for the preparation for the final examination		
Through this work placement, the student acquires data and carries out activities related to the preparation of the final examination. He/she develops skills of judgement and evaluation and acquires knowledge in the use and management of specific software or hardware tools related to the work covered by the final examination.	University, Research center, Association, Company in Italy	Not provided

8. Building and writing the thesis

The following suggestions may be adapted according to different instructions provided by the Supervisor. The discipline may have different needs with respect to the guidelines here described (e.g. the materials and methods section for a thesis elaborated at the PC will be different from a thesis performed in a laboratory).

The process is quite long: do not provide the thesis to your supervisor for reading at the last moment!

8.1 Planning the document

A good thesis is planned as a scientific paper, although more detailed. The reading of scientific paper in your area of research will help you to plan the document accordingly. The information written on the manuscript:

- Must be true and original (*anti-plagiarism rules)
- Must be written with a language appropriate to the discipline
- Must be supported by bibliographic references
- Must be supported by figures, mentioned in the text and explained by captions.

As scientific papers and books, the thesis must be of interest for the reader:

- Must be concise, avoiding repetitions and grammar mistakes
- Must have a clear logical thread, and present the information in a clear manner
- Must provide the reader all elements to comprehend the research developed

- Must highlight the important aspects of the study, the originality and the novelty of your scientific contribution

8.2 Thesis structure

Established the state of the art (2) and clarified the objectives (3), the experimental methodologies (4) are described. This will bring the results (5) through which goal will be (or not) reached (6 and 7).

1) Index

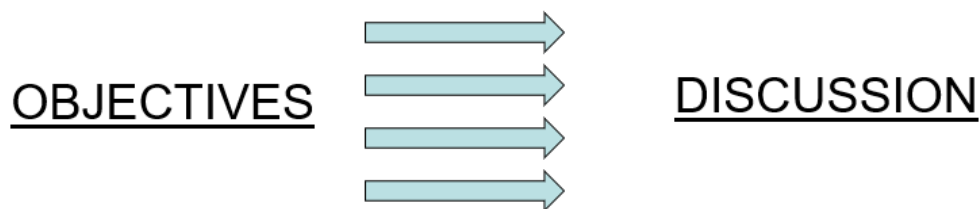
2) Introduction

- It analyses the state of the art on the topic, on the basis of the literature review
- It shows the available information as well as the gaps to be filled
- It contains information on the habitat, or on the model organism, or anything needed to contextualize the investigation
- It collects the knowledge acquired by the student on the topic and allows an appropriate discussion on the achievements

SUGGESTIONS: reflects the knowledge that “the expert” (you) has acquired and allows to answer the questions by the Board during the discussion. Usually is the longest chapter, and may be subdivided in subchapters, each one with a concise and clear title; each subchapter must be exploited to concentrate specific arguments in that subchapter, without repetitions in other subchapters

- 3) **Scope of the research**: this is the crucial part of the Thesis: it explains why that topic is worth investigation. This chapter reports WHY the study has been performed, not HOW. A very short premise with essential info, followed by the objective of the study.

The objectives highlighted will be the guidelines for writing the discussion:



- 4) **Experimental methodologies**: this chapter describes the activities performed in the lab, or in the field, at the computer. Students must report the methods, the protocol used, the equipments, the software, etc Do not provide an excess of details (get the solution from the fridge, use the pipette with the blue tip..). Better organized in subchapters, ie:

- Keeping animals or cell cultures, etc.
- Collection and storage of samples
- Analysis of XXX enzyme activity
- Evaluation of YYY levels

STATISTICS: describe correctly the statistical analysis applied to our results. The method (e.g. 1 way ANOVA), the software used (e.g. Statistica, Sigmaplot, R), the post-hoc test (e.g. Bonferroni), or othe in the case. Remember that the significance of results is crucial for the following discussion (ch. 6). Provide also the info about the software used for graphics (e.g. Excel, Sigmaplot, etc)

- 5) **Results:** usually results are represented on graphs or tables This section can merged with the discussion session (Results and Discussion)
- 6) **Discussion:** it considers and examines the goals of the Scope for Research in order to:
- confirm their achievement and highlight the importance of the scientific contribution given by the work
 - give possible reasons in case some objectives were not reached
 - suggest useful studies to be performed in the future

it must contain true affirmations; be written in a clear and effective manner; have a logical organization of contents; be the premise for final conclusions

SUGGESTIONS: the discussion examines the results obtained, it is not the repetition of the introduction.

Effective means the must clearly add something new to the current state of the art: in case the Thesis has the quality to contribute to the scientific progress, the affirmations reported in the discussion must be clear and focused, and highlight the originality and importance.

- 7) **Conclusions:** this chapter is not mandatory: conclusions may be collected in a final paragraph of the Discussion. However, a specific Chapter attributes to the conclusions a higher importance. It must be a very concise and effective Chapter (1-2 pages), and represents the message the Thesis wants to leave.
- 8) **References:** collect all the citations present in the text. There are various ways to write this chapter, but the one chosen must be used throughout the whole document.

9. Bibliographic research

Bibliographic research may be defined as the complex of activities aimed at accessing the information content of a set of public documents useful for the thesis preparation and, then, writing.

In order to conduct an effective literature search, the University of Bologna has made available a series of catalogues and lending systems through which students can be aided in their bibliographic research. Below, we have listed the most important ones.

9.1 UNIBO offer

Alma Start Unibo (<https://almastart.unibo.it/>)

After logging onto the site with your institutional credentials, you can use AlmaStart for integrated searching of books, articles, other documents in the library or accessible online.

It comes with a single search box where you can enter keywords, title, and author. Advanced search is also available as well as an extensive set of limiters, which help you filter the results you get.

University library system (<https://sba.unibo.it/it>)

The Library System is the structure of the University in charge of coordinating libraries, library collections, and bibliographic and document services. Inside of the website, you can find different webpages that will help you find what you need: it can help you in physical and online research.

One of the most important tools that you can use is [AlmaRE](#), the Electronic Resources Library of the University of Bologna. It is the result of the cooperation of all the Libraries of the University of Bologna in the coordinated and shared activities of selecting, acquiring, making available and enhancing documentary collections in electronic format to support research and education.

SBN/UBO (<https://sbn-ubo.sba.unibo.it/>)

In the SNB/UBO catalogue you can find: books (ancient and modern), journals, films, sound and music materials, documentary materials and manuscripts, dissertations, audio-visuals, graphic and cartographic materials, e-books, and electronic journals among more than 250 libraries that are part of the network. This can help you to find a particular book or article, expanding your search considerably. It is also useful to broaden your search considerably by sourcing from a larger amount of catalogues.

REMEMBER: in order to correctly use these websites, first you have to log onto the websites with your institutional credentials. If you are not in Ravenna (or Bologna), to be able to access the University network, we recommend using the follows site: <https://sba.unibo.it/it/almare/servizi-e-strumenti-almare/ezproxy/connessione-da-remoto>.

Proxy is a remote access service which allows you to access restricted electronic resources (databases, periodicals, and electronic books, etc.) from home, or from anywhere outside the University network.

9.2 NILDE (Network Inter-Library Document Exchange)

Nilde is a software for the exchange of documents among libraries. Single users can create an account on the platform and request a bibliographic resource. All students carrying out research can benefit from this network and request documents not available online. Find out about the platform here: [Nilde World](#)

How to register on NILDE

- Open the following link: <https://nilde.bo.cnr.it/index.php> and find on bottom right the dedicated section for users.
- Select “Register to the NILDE service of your library”.
- User registration: if you select “yes” to the question whether you have an IDEM-GARR institutional account, you will be able to use your @studio-unibo.it credentials to register to the service.
- Select the University of Bologna as your institution and Palazzo Corradini – Campus Ravenna as your library.
- Fill in the Identification Form.
- The subscription has to be validated by a librarian. Students will be notified via email following the validation of their account.
- You can start using the web form!
- Remember that it is possible to send up to 5 requests at a time. The state of requests can be monitored on the web form.

How to use the web form

- Access your account through the institutional Log In (Idem-Garr)
- Select “Enter a new reference” and choose if it is an Article or a Section of a Book
- Fill in the form with all data on the publication you have to be as precise as possible

- On the bottom left you will be asked if you want to bear possible costs for the delivery of the document.
- On the section “My NILDE” it will be possible to monitor the state of requests.
 - Yellow light: processing
 - Red light: not delivered. In this case you may find some notes
 - Green light: the document is available. You may find indications on where to withdraw it on the delivery section referred to the document.

10. Text formatting

The title page of the dissertation is prepared according to the format attached. It is then adapted to the course of study, the graduation session, and to the relevant academic year.

The following stylistic instructions represent just an example. Remember that you have to choose other formats upon approval of the supervisor.

Text font	Arial
Size of the character used in the body	12-point size
Size of the character used in the footnotes , placed at the bottom of a page within the body of the dissertation	10-point size
Line spacing	1.5 points
Right, left, and bottom margins of each page	Set to 2 cm (+1 cm binding on the left)
Upper margin	Set to 2.5 cm
The title of a paragraph	12-point size, bold small capital letters
The indentation of the first line of each paragraph	1.25 cm
	Exceptions
	<ol style="list-style-type: none"> 1. the starting paragraph of either a chapter or a section; 2. the initial paragraph of a quotation; 3. the paragraphs included a list or similar texts.
The title numbering of the chapters	starting at 1

The <u>title of a paragraph</u>	12-point size , bold small capital letters
The titles of the <u>sub-paragraphs</u>	12-point size , italics letters
Paragraphs and subparagraphs	Numbered progressively by a system of indices
Acknowledgements	Included in a paragraph without numbering, at the end of the text and before the bibliography

The thesis Cover must be in line with UNIBO rules, available [HERE](#) (right box)

Whenever the words of other authors are quoted in the text, they should be duly reported with the use of double quotes and the indication of the source. Plain copy-pasting without proper quoting represents a form of plagiarism.

There are two types of quotations:

Types of quotation	Formatting	Example
Short quotations	Two-line long, at most – that are reported in the main body of the text with double quotation marks	The nature of archaeology is summarised by the following: “archaeology is personal, political and all about the present” (Hutchings and LaSalle, April 2014, pp. 27).
Long quotations	Reported within double quotation marks, with the following characteristics: <ul style="list-style-type: none"> • A double line break before and after the quotation to separate it from the main text. • An indentation larger than that of the main text should be applied. • A character size that is <u>one point smaller</u> than the one that is applied to the main text. 	The literature suggests that: change in the total cultural system must be viewed in an adaptive context both social and environmental, not whimsically viewed as the result of “influences,” “stimuli,” or even “migrations” between and among geographically defined units. (Binford, 20 January 2017, pp. 217)

For both quotations: the last line of quotation should always report the name and surname of the author, the date of publication and the page number where the original text can be found. This information should be included within round brackets.

Other types of quotations: figures and tables, numerical index, etc.

Footnotes	10-point characters , at the end of each page, numbered progressively
Figures and tables	Placed at the centre of the body of the main text, numbered progressively
Caption	in italics font , cantered under the corresponding figure or table.
Numerical index	10-point size, in italics font

10.1 Reference system and Bibliography

Harvard Reference System	<p>Used for citations to literature ¹</p> <p>Examples: citations inside the main text of the dissertation. When writing for a professional publication, it is a good practice to refer to another relevant published work.</p> <ul style="list-style-type: none"> • This view has been supported by Cormack (1994). • White and Brown (2004) in their recent research paper found that...
List of bibliographic source	<p>Organised according to the alphabetical order of each author's surname.</p> <p>Example: the list of references should look as follows.</p> <p>Bibliography</p> <ul style="list-style-type: none"> • Boughton, J.M., 2002. The Bretton Woods proposal: a brief look. Political Science Quarterly, 42(6), p.564. • Dahl, R. (2004). Charlie and the chocolate factory. 6th ed. New York: Knopf. <p>Online Resources</p> <p>When consulted and quoted, it is necessary to create a separate section that reports the list of the relevant websites. These should appear in alphabetical order. The date on which</p>

¹Detailed information on the Harvard System may be found at: <https://libweb.anglia.ac.uk/referencing/harvard.htm>

	<p>the candidate has accessed the information should be reported as well.</p> <p>The use of visual material, (i.e., a pictures), quantitative (i.e., a table with numerical data) and qualitative data (i.e., the outcome of a survey) produced by third parties should always come with a clear indication of both the original sources, and the last date when the source has been consulted.</p>
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10.2 Zotero

For effortless use of all bibliographic resources you have found, Zotero is the right tool. It is a free and open-source software for managing bibliographic references and related materials (e.g., PDF files). It can connect to the web browser and online libraries.

Finally, it helps with the automatic generation of citations, notes, and bibliographies, and helps keep track of what has been found so far.

You can download it [here](#) .

10.3 Graphics

Suggestions:

- X and y axis need a name, and a unit (e.g. min, M, etc)
- All graphs should be obtained with the same software, with a similar editing and dimension
- May be in colour or black/white, but the meaning must be clear
- The error bars and the note for significance of data must be present
- Below the graph: write a number (e.g. Fig. 1), a short title, and a short explanation, especially in the statistics significance (e.g. * $p < 0.05$) and on the experimental replicates (e.g. $n = X$)

10.4 Figures

The Thesis usually contains figures in all Chapters (pictures, images, graphs). Each one must be numbered (e.g. progressively within each Chapter and then start again from 1 – Figure 1.1, 1.2, 2.1, ..) with a title and a brief comment.

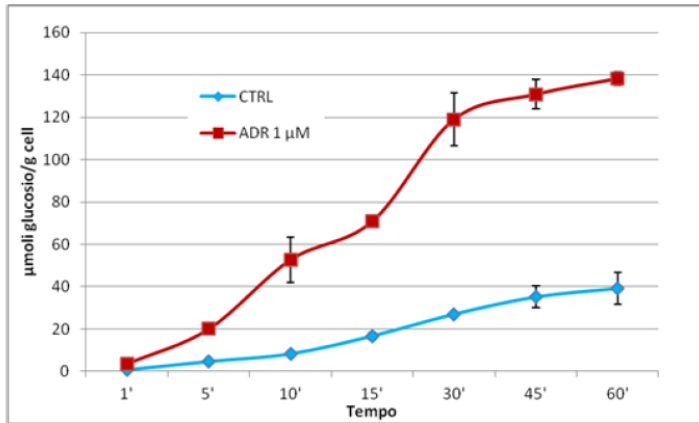


Fig. 4.1 Time dependent effect of 1 μM Adrenaline (ADR) on glucose release from eel hepatocytes
 The graph reports the average ± ES of 3 different experiments each run in duplicate.
 *p<0.05 vs ctr at the same time of exposure. 1way-ANOVA followed by Bonferroni t-test

10.5 Tables

Must contain clear indications of row and column contents.

- On top: must have a number and a title
- At the bottom: if needed a short note can be added to clarify the meaning of numbers, letters, asterisks, etc
- Do not create tables with too many numbers, they would be unreadable.

Table 4.1. Spearman correlation among molecular parameters measured in the digestive glands and mantle of mussels exposed to fluoxetine.

	cAMP	PKA	MgPgp	5HT _{mytil}
GHIANDOLA DIGESTIVA				
[FX]	-0.2	-0.8*	0.771*	0.0286
cAMP		0.771*	0.429*	-0.714*
PKA			0.486*	-0.6*
MgPgp				-0.143
5HT1				
MANTELLLO				
[FX]	-0.943*	-0.257	0.371	-0.257
cAMP		0.370	-0.543*	0.486*
PKA			0.143	0.257
MgPgp				-0.6*
5HT1				

FX fluoxetine; ; cAMP, cyclic AMP; ; PKA, Protein Kinase AMPc-dipendent; ; MgPgp, P-glicoprotein of *Mytilus galloprovincialis* (ABCB1);

5HT_{mytil}, serotonin receptor of *Mytilus*.; *p < 0,05

10.6 Appendix

In case the Thesis collects many data (e.g. 90-100 different metals analysed in 5 sites) is advisable to insert a full table as an appendix, in appropriate sheets at the end of the document.

The more relevant data can be reported in an optimal size table within the Results Chapter.

11. Additional notes

11.1 Numbering of the pages

The number of pages that the candidate is expected to produce varies according to the discipline on which the dissertation focuses. The decision about the specific dissertation length arises from an agreement between the candidate and the supervising faculty.

11.2 Language standards

The dissertation must be written in (academic) English. The public exam of the master's dissertation takes place also in **English**. Any request to change the language of the dissertation represents a derogation from the Programme regulation and is subject to a formal approval by the Study Plan Committee and the Board of the Programme.

During all the phases of the preparation of a dissertation, the candidate should:

- **apply linguistic and stylistic standards** that guarantee a clear understanding and immediate readability of the text. The supervising faculty is not required to suggest specific improvements to the stylistic construction when major linguistic deficiencies are present. The candidate is responsible for ensuring that language standards consistent with those of the scientific community are followed;
- make sure that an **appropriate control of the quality** of the text has been carried out before submitting any dissertation draft to the supervisors.
- may use appropriate software tools for checking and improving the stylistic quality of the dissertation drafts.

11.3 Originality of the dissertation project and Plagiarism check

The faculty considers as inadmissible the submission of documents which:

- are not the result of original work by the candidate;
- are not the product of the individual and personal study efforts by the candidate;
- are the outcome of 'copy-and-paste' practices;
- do not carry appropriate bibliographic references;
- do not report the original source of the materials produced by third parties;
- do not provide enough support for the authenticity and uniqueness of the dissertation document.

The University does not permit any form of plagiarism or intellectual dishonesty, whether intentional or deriving from negligent behaviour or the abuse of hierarchical positions or academic influence. (From code of ethics and conduct http://www.normateneo.unibo.it/codice_etico.html).

The university takes **plagiarism** very seriously and has legal implications: concepts and statements taken from the literature should be appropriately reworded and referenced.

12. Final remarks

The provisions contained in this document are complementary to those laid out in the Student Regulations pursuant to Law 240/2010, in the University Statute² and in the Code of Ethics³ of Università di Bologna.

Both the candidate and the faculty members undertake to comply with all the relevant sets of rules during the different stages of the degree dissertation work.

The teaching faculty is in charge of informing the candidate about the relevant regulatory provisions in due course. The graduation candidate reviews the guidelines before applying for a dissertation.

The faculty and the candidate also agree to interact with each other in order to dispel any doubts that may arise regarding the application of the rules.

Key information about the Preparation of the Master Dissertation can be found:

- On the WACOMA website at the [Final Examination Modalities Page](#);
- On the WACOMA website at the [Preparation for the Thesis abroad page](#);
- On the [UniBo website](#);
- On the '[AMSLaurea- Institutional Thesis Repository](#)' you can consult the dissertations of students of previous years on the [Enter with UNIBO](#) dedicated portal.

NOTE: Not all the dissertations are published. This usually depends on the choice made by the student and supervisor in the moment of the submission of the graduation application.

² The University Statute can be found at: http://www.normateneo.unibo.it/Regolamento_studenti.html

³ The Code of Ethics can be downloaded from: <https://www.unibo.it/en/university/who-we-are/code-of-ethics-and-conduct>

PART III: DISCUSSION

13. Overview

The candidate presents her/his dissertation work at a **final oral examination**. The discussion of the dissertation takes place in a public venue in front of the Graduation Board (*Commissione*). It should be stressed that the presentation and discussion of a master's dissertation represent a public, formal examination on the subject on which the candidate's dissertation work is focused on. In the study plan, the Final discussion accounts for 8 CFU, code 94533.

The dedicated *Commissione* proposes and makes a formal decision on the preliminary admission of the candidate to the dissertation exam, considering the written dissertation work and the public discussion.

The Board will assess the candidate's overall performance – dissertation, public discussion, academic curriculum.

The regulations of the University of Bologna have introduced the principle of autonomy of the individual dedicated *Commissione* in the formation of grading policies. Correspondingly, the Board expresses its assessment with a grade out of one hundred and ten. **The exam is deemed to be passed with a minimum grade of 66/110 and a maximum grade of 110/110.** In case of granting the maximum grade, the Board may also grant Honours (*lode*) by unanimous decision.

13.1 Final grade criteria

The formation of the final grade is obtained from the sum of the following scoring elements:

- A.** The [average degree score](#) achieved by the candidate in the exams from the Study Plan, expressed on a **110-point scale**. This weighted average is computed in the following way:
- each grade is multiplied by the number of credits obtained in the corresponding exam;
 - the sum of the values obtained for all the exams is calculated;
 - the result of the sum is divided by the total number of credits gained from the Study Plan.

Formula: weighted average x 110: 30

B. Up to 9 points:

- 4 points by the Supervisor,
- 3 points by the Co-examiner,
- 2 points by the Graduation Board

C. 1 point if the graduate student participated to the Thursday seminars

NOTE: Please do note that the final grade assigned to a dissertation is determined by taking all the above-mentioned criteria into consideration, and this determination is the sole responsibility of the dedicated *Commissione*.

14. Preliminary activities

Taking into account the graduation notice, remember that:

- 1) PDF of the Thesis on SOL by the deadline (14 days before the discussion)
 - a. Following the upload, Supervisors have 7 days to approve the thesis: this is mandatory to allow students to graduate
 - b. The PDF of the Thesis must be sent to the Co-examiner
 - c. keywords must provide an immediate understanding of the topic (e.g. mussels, endocrine, disruptors, transcriptomics, ..) and allow readers to find your Thesis in the data repository
- 2) ABSTRACT (14 days before the discussion – to be sent to Segreteria Didattica) is the summary of the Thesis to be uploaded on SOL and sent to the Degree Programme Office. It must be max 2.000 characters, including spaces, and must represent the Thesis, providing
 - a. A few lines of introduction
 - b. objectives
 - c. very brief indication of methods
 - d. Results and discussion (together)
 - e. A few lines of conclusions

The agenda for the Dissertation day is set by the Degree Programme Office, usually 7 days before.

NOTE: students do not need to submit a hard copy of the thesis to Segreteria, BUT a hard copy must be delivered by hand to the *Commissione* on the day of the Discussion. This will be given back to the graduate student at the end of the session.

15. Discussion of the dissertation

During the dissertation discussion (about 25 minutes), you may use slides and the Commission may ask you in-depth questions on methods, results and any developments of your work.

The session is divided in 2 moments:

- Presentation of the thesis by the graduate student: it lasts max 20 minutes
 - presentation (in .ppt or other format), that summarizes all chapters of the thesis document. Graphs, table, images must be readable on the screen, do not exceed 20 slides (unless you have simple images with a few comments). Use the last slide for conclusions and future perspectives in that field of studies. Avoid to present excess of animations, writing too much text and reading it during the presentation.
- Discussion with the *Commissione* (questions and answers)

SUGGESTIONS: do not switch off the brain at the end of the presentation: answering the questions posed by the *Commissione* is very important.

16. Final certificates

After the end of the session, the President of the *Commissione* proceeds to register the final grade in the SOL platform. Graduate students can download a self-declaration from SOL (i.e. graduation certificate, Diploma Supplement) few days after the graduation. If a student needs a signed hard copy, he/she has to ask it to the Segreteria Studenti via mail, specifying which certificate he/she needs.

After some months, the UNIBO sends all graduate students the official diploma (signed by the Rector) via regular mail at their home address.