

MASTER DEGREE IN MEDICAL BIOTECHNOLOGIES GUIDELINES FOR WRITING THE THESIS

A) The thesis must demonstrate:

- 1) an exhaustive knowledge of the topic chosen by the student;
- 2) the ability to synthesize the work starting from a precise review of existing literature;
- 3) the student's competence to synthesize the information, which in any case must provide the basic elements for the understanding of the work by the professors;
- 4) the student's skill to explain his/her research results;
- 5) the student's ability to analyze and explain his/her results;
- 6) the competence to discuss the results within the general scientific context and the literature, drawing the appropriate conclusions and suggesting the next developments .

B) The text of the thesis can be written in Italian or English, must be between 10,000 and 15,000 words, except the references and the key of the figures, and it should be structured as follows:

1) **Title**

2) **Summary** (no more than 1 page) divided as follows: the Rational of the study, the Planning of the study, the Results and the Conclusions. The summary will be delivered to each member of the graduation committee.

3) **Introduction** (not exceeding 4,000 words): it must contain a brief review of the literature about the topic chosen to define the current knowledge of the subject, an indication of the problems about the subject and then describe the objective of the thesis.

4) **The objective of the thesis.**

5) **Materials and Methods.** As in a scientific work, it must include a description in full of the original methods used and the potential published methodology. It should not be described at length the standard procedures, such as western blot, protein dosage etc

6) **Results:** in the text it must include the figures and tables, with the explanatory legends.

7) **Discussion**

8) Bibliography (Cell format)

For thesis with use of databases and materials of potential patients it must be mentioned the authorization of the Ethics Committee about the real structure of the samples.

For thesis with the use of animal materials it must be quoted the authorization of the Ethics Committee for Animal Experimentation of the real structure of the samples.

For the use of MOGM (genetically modified organisms) it must be mentioned the authorization of the Ministry of Health.

For even more detail, will be followed the lines of *Cell* guide (abbreviations, citations etc), as shown in this webpage: www.cell.com.

Obviously, the conditions imposed by the students office (title page, etc) will have to be respected.

The President of the Master Degree in Medical Biotechnologies nominate as examiners one member of the Graduation Committee that will evaluate the scientific subjects of the thesis and examine them with the candidate in the days before the public discussion. The examiner is a professor of the degree course or the School of Medicine not involved in the thesis project. The thesis should be delivered to them at least 7 days prior to discussion.

During the graduation examination every candidate has no more than 10 minutes at the disposal to explain orally the thesis with the support of computer equipment and slides.

The presentation will be followed by a general discussion lasting 5 minutes.

IMPORTANT WARNING!

The students are warmly invited not to use artificial intelligence tools for writing their thesis. If their use is absolutely necessary, it is mandatory to clearly declare which parts of the thesis have been generated using AI tools and to specify which tools were used (for example, ChatGPT, Gemini, Copilot, etc.), including information on how they were employed and the results obtained. It is also reminded that the risk of plagiarism is high in case of improper use of such tools, and in these cases, the thesis will be considered invalid.

The final grade, expressed in 110, will be determined as follows:

- 1) Weighted average of the marks obtained in the curricular examinations, expressed in 110 (one hundred and ten);
- 2) 0.1 point for every honours obtained in the curriculum;
- 3) Award credits for the current graduation:
 - a) 1 point for students who graduate in two years within the fall session;
 - b) 0.5 points for those who graduate in two years at the extraordinary session

c) 0 point for those who graduate in a period of over two years

From the students cohort 2024/2025 a.y the points will be defined:

- 2 points for students who graduate in two years within the summer session;
- 0,5 punti for students who graduate in two years within the fall session;
- 0.1 punti for students who graduate in two years within the extraordinary session;
- 0 point for those who graduate in a period of over two years

d) International Exchange Programs:

- 3 points for Erasmus + Mobility for study (from 6 month to 1 year)
- 2 points for Erasmus+ Traineeship e or Freemover Mobility greater than or equal to a 2 months;
- 1 punto per Freemover Mobility greater than 4 weeks.

IMPORTANT! International Exchange Programs (maximum 3 points) from 2024/2025 students cohort

- 0,1 point for each credit recognized during the exchange mobility (the credits for internship or thesis must be not considered);
- 1 point for the internship;
- Till 2 points (as instructed by the mentor) for a thesis carried out during the mobility.

The point related to an international mobility will be added to the weighted average and to other points with a final rounding;

- 4) 1 point for every scientific publication (maximum 3) in which the candidate appears among the authors (not abstract or proceedings of a conference communications) in international journals indexed in ISI and / or PubMed and / or Scopus, actually published or accepted for publication;
- 5) 1 point (maximum of 3) for participation in patents (the name of the candidate should be among the inventors);
- 6) a maximum of 9 points awarded as follows by the Commission Degree after the submission of the thesis:
 - a) 3 points overall by the co- examiners
 - b) 3 points by the supervisor
 - c) 3 points by the commission, on the basis of presentation and discussion, which will be evaluated for the clarity, the correct methodological approach, the scientific originality and the ability to reply to the Commission's questions.

The Committee expresses its score after the statement of the votes of the co-examiners and of the supervisor.

The overall grade, determined by the sum of the scores provided by the items "a-d" is rounded up or down to the nearest whole number. The decimal 5 is rounded to the higher whole number.

The honours can be attributed by a unanimous opinion from the Commission to the candidates who obtain a final score equal to 113 and / or higher or who, having reached 110/110, have obtained at least three awards

in the exams.

The honorable mention is given officially to candidates who achieve a score of 110/110 with honours and who have obtained three or more honours during the studies, and/or to the candidates who obtain a total evaluation equal to or greater than:

- 113/110 with 3 or more honours
- 110/110 with 6 or more honours
- 120/110

