



APPROVED

**minutes of the session of the Senate of
Nicolae Testemitanu SUMPh
no. of 27.01.2020**

REGULATION

**on the development and defense of the licentiate thesis at
Nicolae Testemitanu State University of Medicine and Pharmacy
of the Republic of Moldova**

I. GENERAL PROVISIONS

1. This Regulation establishes the main rules regarding the development, structure, graphic design and defense of the licentiate thesis at Nicolae Testemitanu State University of Medicine and Pharmacy (hereinafter "University") and is developed on the basis of the following provisions:
 - Education Code no.152 of July 17, 2014;
 - Regulation on the organization of studies in higher education based on the National Study Credit System, approved by Order of the Minister of Education no. 1046 of October 29, 2015;
 - Regulation on the organization of studies in higher education based on the National Study Credit System at Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova, no. 1/8 of 06.04.2017;
 - Regulation on the organization of the graduation examination in integrated higher education at Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova, no. 1/8 of 06.04.2017;
 - Government Decision No. 482 of 28 June 2017 on the approval of the Nomenclature of Professional Training and Specialties in Higher Education;
 - The Framework Regulation on the organization of the graduation examination for higher education, approved by the Order of the Minister of Education no. 1047 of 29.10.2015;
 - The Framework Plan for Higher Education (cycle I - License, cycle II - Master, integrated studies, cycle III - Doctorate), approved by Order of the Ministry of Education no. 1045 of October 29, 2015;
 - The Charter of Nicolae Testemitanu State University of Medicine and Pharmacy registered at the Ministry of Justice on 08.10.2015.
2. Licentiate thesis is a component stage of the Licentiate Examination in licentiate higher education (cycle I) and of the Graduation Examination in integrated higher education (cycles I+II).
3. The licentiate thesis is an important component in the assessment of the graduate's knowledge and scientific activity. It tests the skills to conceive and conduct independent research as well as to draw up and present the results of the research according to the rules of the scientific community.



4. The development of the licentiate thesis is aimed at:
 - development of the graduates' skills to conduct research and acquire the research methods in the specialty field;
 - systematization and application of the theoretical knowledge in the specialty in the process of development of practical solutions, specific to the field of professional training or the realization of the case studies;
 - appreciation of the graduate's capacities and the degree of training for individual post-graduate professional activity.
5. Faculty Dean's offices, as the case, will ensure the plagiarism verification of the licentiate thesis.

II. CHOOSING OF THE THEME AND THE SCIENTIFIC ADVISOR

6. The theme of the licentiate thesis is proposed by the departments / teaching chairs and placed in the Didactic Module of the University Information Management System (further - SIMU).
7. The dean's offices will approve the themes of the theses proposed by the departments / chairs for each study program, after which they become accessible to the students in SIMU.
8. From the list proposed by chairs in SIMU, the students select the theme of the license thesis, usually, by the end of semester VIII of studies for the programs of integrated higher studies lasting 6 years, semester VII - for the programs of integrated higher studies with the duration for 5 years; VI semester - for the higher education programs.
9. In order to coordinate the development of the thesis, the departments / chairs confirm a thesis advisor. University professors, associate professors, lecturers or university assistants with a scientific degree of the departments / chairs may be appointed as scientific advisors.
10. The themes for the licentiate thesis can be edited and modified with the approval of the scientific advisor of the thesis, being approved by the head of chair.
11. The student can change the theme and / or the scientific advisor only once, after being informed and with the approval of the initial scientific advisor and the Faculty Dean. Changing the theme and the scientific advisor is no longer possible starting with the first semester of the last year of study.
12. A scientific advisor may coordinate a maximum of 5 theses (cumulative in all study programs) for one academic year. The Dean's Office will coordinate the number of licentiate theses made within the chair according to the number of students at the faculty and of the teaching staff at the department / chair.

III. STRUCTURE AND PRINCIPLES OF THE LICENTIATE THESIS DEVELOPMENT



13. The licentiate thesis must demonstrate the student's ability to work with literature relevant to the subject. The thesis should be developed correctly from the point of view of methodology, data analysis and argumentation, have a logical structure, be written in scientific language. The aspect must be in accordance with academic standards and comply with the scientific writing recommendations (structure, wording, bibliography) provided in Section IV of this Regulation.
14. The license thesis can be carried out in the form of:
- * **original research** work (clinical, experimental, epidemiological study, etc.)
 - * **literature synthesis** work.
15. Licentiate theses are developed and written in Romanian or in the language of the student's studies.
16. The structure of the diploma thesis comprises the following sections:
- **Title page;**
 - **Declaration of responsibility**, signed by the author and countersigned by the scientific advisor;
 - **Contents;**
 - **List of Abbreviations;**
 - **Introduction;**
 - **The content of the work** as follows:
 - a. Original research work:*
 - ✓ Chapter I. The bibliographic analysis of the theme;
 - ✓ Chapter II. Material and methods of research;
 - ✓ Chapter III. Own results and discussions;
 - ✓ General conclusions;
 - ✓ Annexes (if required);
 - ✓ Bibliography.
 - b. specialized literature synthesis work:*
 - ✓ Methodology for selecting bibliographic sources (databases, period, keywords; inclusion and exclusion criteria, etc.);
 - ✓ The main part, consisting of 1-2 chapters
 - ✓ Discussions;
 - ✓ Conclusions;
 - ✓ Bibliography.
 - ✓ Annexes (if required);
- 16.1. **Title page** – is done in accordance with Annex 1.
- 16.2. **Declaration of responsibility** – is written in accordance with Annex 2 and is placed after the title page.
- 16.3. **Contents** – it is recommended to be placed at the beginning of the work, after the Declaration, where the names of the chapters, the subchapters, the other parts of the thesis and the corresponding pages are written.
- 16.4. **List of Abbreviations** (as the case) – the international abbreviations, unanimously



accepted in the field of the theme of the thesis, are used.

16.5. **Introduction**, where the following are recorded:

- a. *the actuality of the problem;*
- b. *purpose and objectives of the research;*
- c. *the practical importance of the work (as the case).*

The volume of the introduction should not exceed 2-3 pages.

16.6. Chapter I. „**The bibliographic analysis of the theme**”. It will carry out a critical evaluation of the relevant literature for the research theme, will have a concrete name, reflecting the theme of the research. The section will contain analysis of different bibliographic sources on the thesis: scientific articles, monographs, manuals, guides, clinical protocols, etc. published in the country and abroad. The main theories, explanatory templates, showing the development and progress of recent research, and possible gaps or limitations, will be presented.

The chapter will be structured on subchapters, which will correspond to the research objectives. The chapter will present the theoretical framework of the studied problem and will not exceed 30-35% of the number of pages of the theses. The priority will be given to the literature of the last five years (at least 50 %).

Chapter II "**Material and methods of research**" (if necessary, will be structured in subchapters) will include the general characteristic of the study - the type of study, the design of the research, the material studied; research methods, etc. and the methodology of mathematical and statistical analysis of the obtained results. The volume of this compartment will not exceed 3-4 pages and should answer the following questions:

- ✓ what was the study material (if applicable, name, group, series, producer, country);
- ✓ sampling mode;
- ✓ type of study chosen, according to research
- ✓ reagents and standards used - chemical name, quality, concentration, manufacturer, country of origin;
- ✓ the equipment used (type, model, producer, country of origin);
- ✓ which parameter / parameters are / is to be assessed and assessment methods;
- ✓ what were the criteria for its / their choosing;
- ✓ what was the way to obtain the reagent solutions, stock, working;
- ✓ what were the working conditions, including the way of preparing the sample for analysis (if applicable).

The information must be sufficiently precise for a reader to reproduce and verify the reported work.

In Chapter III "**Own results and Discussions**" the results, which will be in accordance with the design and the research methods used, will be presented. In this part of the paper the tables and figures, which will present the results of the research and the discussion of these, the statistical processing of the data and the own opinion of the research, will be included. Interpretation of own data will be done by reference to data from the literature, indicating similarities and differences.

16.7. For **specialized literature synthesis work**:



The **main part** can consist of 1-2 chapters, which will contain:

- description of the relevance of the research topic, the situation in the field and the controversies registered;
- presentation of the types of studies carried out in the field (for example: descriptive or analytical, observational or experimental, etc.) and the techniques used without a detailed description of the experimental procedure and how they are applied;
- description of the most important results, published in recent scientific articles;
- dynamic development and scientific progress in approaching the proposed topic for research;
- finding certain thematic aspects, being highlighted various opinions and conclusions of the authors;
- use of figures and / or tables (with source indication), to support the synthesis of results, made by the author of the publication or to present the most relevant results taken directly from the scientific article.

The **Discussion** section is described in a separate chapter, the purpose of which is to interpret the exposed narrative material, which will include:

- interpretation, critical analysis and explanation of the literature review exposed in the main part;
- mentioning and explaining the limits of the research (synthesis) performed on the topic of the thesis based on the objectives set;
- mentioning the aspects of the license thesis insufficiently addressed in the literature in the field in order to suggest future research directions;
- the interpretations offered must logically lead to conclusions.

- 16.8. **Conclusions** will be briefly written out on points that will contain a summary of the results obtained and will reflect their opinions and personal contribution in studying and elucidating the problem addressed.
- 16.9. The **Bibliography** will contain bibliographic sources used in the paper. It will be made up according to international requirements (Annex 3). The references will be presented in a numerical sequence according to the alphabetical order of the names of the first authors with the preservation of the unique numbering. References to bibliographic sources are indicated in square brackets, inserted into the text, for example - [8]
- 16.10. In the **Annexes** various materials (survey questionnaire, investigations, schemes, photographs, case study, etc.) relevant to the study undertaken will be included. If some aspects of the research have been published or communicated in the scientific manifestations, copies of the summaries or scientific articles in the original documents and the active participation certificates, will be presented in the annexes. Publications will be boldly quoted in the "**Bibliography**"

IV. RULES ON THE GRAPHIC ASPECT OF THESES

17. The theses should be written on white paper, A4 sized, 210 x 297 mm, on one side of the paper.



18. The pages of the thesis will have the following fields: left - 30 mm, up and down - 20 mm, on the right - 15 mm. All pages of the thesis, except for the title sheet, will be numbered, the number placed in the center of the page, down. Repeating and absence of pageing is not allowed.
19. The thesis will be computerized, using the Times New Roman font - 12 pt, at 1.5 intervals and using the appropriate diacritical marks (ă, î, â, ș, ț). When capitalizing titles, capitalization and font 14 are allowed, as well as highlighting certain words with Bold or Italic.
20. Each section of the thesis will start from the new page. The chapters will be capitalized, bold, centered, numbered with Arabic numerals (1; 2); the word "chapter" is not written. The subchapter titles are written in lower case and are numbered in Arabic numerals (1.1, 1.2, 2.1, etc.) The first line of each paragraph starts with a 1 cm paragraph. (Annex 4). (as amended by Senate Decision No. 16/7 of 28.11.2018).
21. Formulas, tables and figures are numbered consecutively without taking into account the chapter number, for example:
 - ✓ figure 5 - in the explanatory text or Figure 5. - in the title of the figure, which is placed below the figure using the font Times New Roman Regular, Centered (Annex 4);
 - ✓ table 7 - in the explanatory text and Table 7. - in the name of the table, placed above it, using Times New Roman, Regular, Centered (Annex 4);
 - ✓ the formula is placed at the beginning of the line, and its number - at the end of the line (Annex 4);
 - ✓ if necessary, mention the data source in the table / figure under the title of the table / figure aligned between the left and right margins, indicating the name of the author / s, title of the work, publisher, year, page, or address of the online source (in the same way as the Bibliography is done);
 - ✓ If there are tables that contain notes, they will be written immediately after the table, not in the bottom of the page or in the body of the table.
22. In the thesis it is allowed to abbreviate combinations of words, compound words, words commonly used in accordance with international abbreviations, unanimously accepted in the scientific community and provided that they do not create difficulties in reading the text and do not cause ambiguities.
23. Notes, corrections, letter outlines, erasures, spots, page additions, etc. are not allowed in the thesis.
24. The thesis will have an average volume of 30-45 pages.

V. DEFENSE AND ASSESSMENT OF THE LICENTIATE THESES



25. Completion of the thesis is subject to obtaining the agreement of the scientific advisor by admitting the student to the prior defense at the department / chair.
26. The licentiate thesis in its final form will be submitted to the department / chair for prior defense at least one month before the deadline indicated for defense.
27. Prior defense will be made at the department / chair meeting, during which students will present the obtained results (Power Point), and the scientific advisor will assess the thesis by completing the assessment sheet (Annex 5). The assessment sheet completed by the advisor is a proof that the license thesis corresponds to the requirements stipulated in this Regulation and can be submitted to the public defense.
28. The student is admitted to the public defense of the license thesis within the Assessment Board, if the license thesis presented at the prior defense has been approved by the department / chair, fact confirmed by the extract from the minutes stating the student's name, the qualification "admitted".
29. The thesis will be covered after its approval at the meeting of the respective department / chair and will be presented 10 days before the final defense to the Assessment Board, the composition of which will be approved by order of the rector.
30. The department / chair will present in the Dean's on a CD all the theses developed within the chair in electronic format the PDF version, which is kept in the Dean's archive.
31. The thesis defense will be public and will be held in the open session of the Assessment Board at the chair in which the student developed the license thesis, in the presence of at least 2/3 of the number of members, in the form of a summary presentation of the thesis by the author, supported by Power Point presentation, for which he is granted up to 15 minutes.
32. If the theme of the licentiate thesis is interdisciplinary, the interdisciplinary Assessment Board will be created by the rector's order.
33. The chairman of the Assessment Board coordinates the defense of the license theses, asks questions, gives notes, ensures the preparation of the minutes and is responsible for complying with the provisions of the Regulation.
34. The members of the Assessment Board ask questions, give grades and perform any other tasks established by the chairman, for the smooth running of the license theses defense.
35. The Secretary of the Board asks questions, gives grades and ensures his administrative activity: checking and preparing the classrooms for public defense, taking the license theses, receiving the assessment sheets from the scientific advisors, taking the assessment sheets of the commission to the Dean's (one per student), taking and verifying the materials of presentation by the students of the license theses, as well as other attributions given to him by the Chairman of the Commission for the smooth running of the theses defense.
36. The licentiate thesis will be assessed according to the following criteria:



- the quality of writing the license thesis and observing the structuring rules;
- ✓ carrying out of the study / research itself;
- ✓ bibliography quality;
- ✓ quality of oral presentation and answering of Board's questions;
- ✓ confirmation of research results publication (article, thesis, report, poster).

37. The decision on the mark for license thesis defense will be taken at the closed assessment board meeting, according to the evaluation algorithm and using of assessment sheet (annex 6).
38. The results of the paper's defense will be communicated to the students on the same day after the assessment board meeting.
39. The marks obtained by the candidate will be reflected in the minutes of the Assessment Board meeting, the student's record-book and the Supplement to the Diploma.
40. The absence without good reason on a licentiate thesis defense or the obtaining of a mark less than "5" is qualified as a failure of the graduation / licentiate examination.
41. If the licentiate thesis has been assessed with a mark less than "5", the Board decides whether, after the necessary corrections, it can be defended at the next sessions of the graduation examination, or it is necessary to change the theme of the thesis. The decision of the Assessment Board is final and can not be reviewed.
42. For the purpose of the unitary assessment of the licentiate thesis, the assessment grids will be applied by the scientific advisor (Annex 5) and by the members of the assessment board (Annex 6). If the scientific advisor is also a member of the Assessment Board, he will not participate in the thesis assessment.
43. The final mark of the presented thesis will be calculated by the application of the coefficients according to the following formula:

$$M_{\text{final}} = (0,2 \cdot M_{\text{SA}}) + (0,8 \cdot M_{\text{AB}}), \quad \text{where:}$$

M_{SA} – mark of the scientific advisor (from the assessment sheet set out in Annex 5);

M_{AB} – the Assessment Board mark (arithmetic average from the Assessment Sheets drawn up in accordance with the model in Annex 6);

V. FINAL PROVISIONS

- 5.1. This Regulation enters into force on the date of its approval by the SUMPh Senate.
- 5.2. All subsequent amendments and additions to this Regulation enter into force upon their approval by the SUMPh Senate.
- 5.3. The Deans of Faculties have the obligation to make public the Regulation on the defense of the licentiate thesis on the faculty webpage.



**NICOLAE TESTEMITANU
STATE UNIVERSITY OF MEDICINE AND PHARMACY
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on licentiate thesis defense**

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Signed by:

Vice-rector for Quality Assurance and
Integration in Education

_____ Olga Cernetchii

Vice-rector for Research

_____ Stanislav Groppa

Head of Department of Didactics

and Academic Management

_____ Silvia Stratulat

Head of Unit of Academic

Management Quality

_____ Stela Adauji

Dean of Faculty of Medicine no 1

_____ Gheorghe Placinta

Dean of Faculty of Medicine no 2

_____ Mircea Betiu

Dean of Faculty of Pharmacy

_____ Nicolae Ciobanu

Dean of Faculty of Dentistry

_____ Oleg Solomon



**NICOLAE TESTEMITANU
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Annex 1. Title page

Ministry of Health, Labor and Social Protection of the Republic of Moldova
(font 14, Bold, Centered)

Nicolae Testemitanu State University of Medicine and Pharmacy
(font 14, Bold, Centered)

FACULTY NAME
(font 14, Bold, Centered, Uppercase)

Department/Chair of name
(font 16, Bold, Centered)

Licentiate thesis
(font 15)

THEME OF THE THESIS IN CAPITAL LETTERS (font 18,
Bold, Centered)

SURNAME, first name of the student (font 14, Bold, Centered)

Year __, group __

Scientific advisor:
Surname and name of the scientific advisor(s) (font 14, Bold)
Scientific degree, didactic degree (font 14, Bold, Italic)

Chisinau, year



DECLARATION

I, *Name, Surname*, hereby declare on my own responsibility that the licentiate thesis entitled "*The Complete Title of the License Thesis*" is prepared by myself, the materials presented are the results of my own research, are not plagiarized from other scientific papers and have not been presented at another faculty or higher education institution in the country or abroad.

I also declare that all sources used, including the Internet, are indicated in the licentiate thesis, in compliance with the plagiarism avoidance rules:

- ✓ all fragments of text reproduced exactly, even in my own translation from another language, are written with reference to the original source;
- ✓ rewriting of the texts of other authors in my own words has the reference to the original source;
- ✓ summary of other authors' ideas has the exact reference to the original text;
- ✓ work methods and techniques taken from other sources have exact references to original sources.

Date _____

Graduate _____
(Surname Name)

(Signature)

Scientific advisor, _____
(scientific and didactic degrees)

(Surname Name)

(Signature)



Annex 3. Examples of bibliography presentation

The editing of the bibliography will be done in strict compliance with (letters type, order of quotes, punctuation marks) the following model:

- ✓ for **articles** the following things are mentioned: author's name, title of the article, magazine name, year of appearance, volume, first and last page.

Example:

1. Baranetchi I., Prisacari V. Factori de risc în infecțiile septico-purulente nosocomiale de profil traumatologie și ortopedie. Studiu descriptiv transversal. În: Moldovan Journal of Health Sciences. Revista de Științe ale Sănătății din Moldova. 2016, 2 (8), p.15-27. ISSN 2345-1467.
2. Casian D. A. Regarding an alternative treatment for varicose veins: ligation plus foam sclerotherapy. In: Dermatologic Surgery. 2012, 38(1), 146-147. ISSN 1524-4725. doi: 10.1111/j.1524-4725.2011.02212.x (**IF: 1,798**).
3. Chung DR, Zang WS, Kim SB et al. Treatment of herpetic B virus associated glomerulonephritis with recombinant human alpha-interferon. In: Am J Nephrol, 1997, 17:112-117.
4. Hotineanu V., Moraru V., Bujor P., Bujor S. Cholelithiasis – epidemiology, risk factors and etiopathogenic aspects: Up-to-Date. In: Jurnal de chirurgie, 2014, X, 2, p. 101-104. NSN 1584-9341.

- ✓ for **books** the following things are mentioned: authors' names, title of the book, publishing house, place of appearance, year of appearance, first and last page.

Example:

5. Ciobanu Gh. *Resuscitarea cardiorespiratorie și cerebrală*. Volumul 1. Serghienco-Ciobanu, L. (red. șt.). Chișinău. Nova-Imprim; 2014.
6. Popovici I, Lupuleasa D. *Tehnologie farmaceutică*, Ed. Polirom, Iasi, 2001.

- ✓ all the bibliographic sources included in the licentiate thesis must be in the final bibliographic list. For the sources downloaded from the internet, web page addresses will be noted. In the final bibliography, they must be at the end of the list:

Example:

7. Jones ET, Miles C. *Computing networking*. 2nd edition. Derby, Bugle Press; 2002. Disponibil la: <http://www.imperial.ac.uk/library/digitallibrary> [accesat la 10.06.2007].

Note: 1. *Articles published online may not have the number of pages.*

2. *If some parts of the thesis were published or communicated during scientific events, the thesis will incorporate a copy of the abstracts or scientific articles from the original documents (magazine, abstract book). These articles will be mandatory cited in the Bibliography.*



Annex 4. Examples of writing chapters, tables, formulas and figures

(as amended by Senate Decision No. 16/7 of 28.11.2018)

Example of chapter writing

3. CHAPTER TITLE (BOLD CAPS, font 14, centered)

2.1. Subchapter title (Bold, font 13)

2.1.1. Subpoint title (Bold, font 13, bold)

In the contents of the subchapter or subpoint, the text displayed will contain the results obtained and their description in the form of tables, figures, ext.

2.2. Subtitle title (Bold, font 13)



Example of tables

Table 7. Changes in the activity of ALT, AST, PCE and albumin and total serum protein levels in animals with ethylene glycol-induced toxic hepatopathy

Seric indices	Animals cohort	
	Control group	HT
ALT, UI/g prot	0,426 ± 0,02, 100%	0,468 ± 0,03, 110%
AST, UI/g prot	0,226 ± 0,01, 100%	0,236 ± 0,02, 105%
PCE, nmol/s.g prot	681,0 ± 0,04, 100%	547,8 ± 0,04*, 80%
Total protein, g/L	36,49 ± 0,80, 100%	31,03 ± 0,34***, 85%
Albumin, g/L	38,74 ± 1,78, 100%	11,56 ± 0,35***, 30%

Note: ALT – alanine aminotransferase; AST – aspartate aminotransferase; PCE – pseudocolinesterase; HT – hepatic toxicity induced by ethylene glycol.

The veracity of the differences compared to the control group: *– $p < 0,05$; **– $p < 0,01$; ***– $p < 0,001$.

Examples of formula

$$n = t \cdot 2 \cdot xp(1-p) / \Delta^2$$

(4)

Example of figure

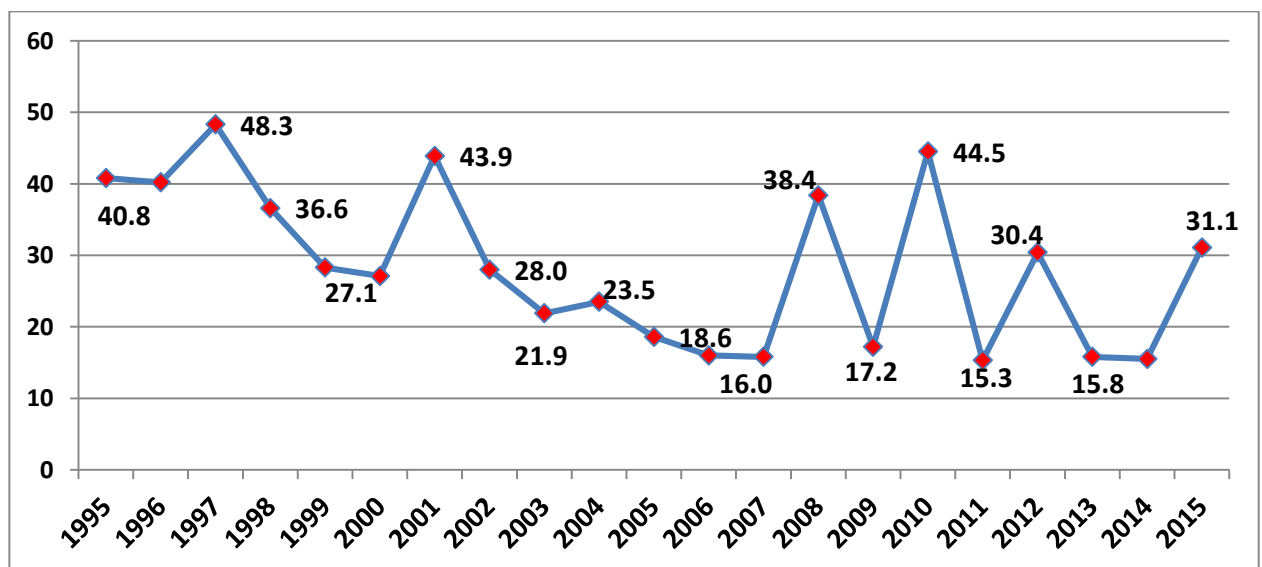


Figure 21. Maternal mortality rate per 100,000 live births in 1995-2015 [Bibliographic reference number].



**LICENTIATE THESIS ASSESSMENT SHEET
BY SCIENTIFIC ADVISOR**

Assessment of the thesis with the theme:

Developed by the student _____ group _____

1. Assessment of the quality of the work and research undertaken:

1-5 points

Points :

2. Analysis and synthesis capacity:

0,5-1,5 points

Points :

3. Respecting the rules of structuring and editing of the work:

0,5-2 points

Points :

4. Bibliography quality:

0,5-1,5 points

Points :

Mark at the stage of assessment by scientific advisor: _____ Date: _____

CONCLUSIONS: The licentiate thesis may be presented and defended before the Assessment Board:

Yes

No

Scientific advisor: _____
S.N., scientific or / and didactic degree *Signature*

Head of chair _____
S.N., scientific or / and didactic degree *Signature*



*Annex 6
(as amended by Senate Decision No. 16/7 of 28.11.2018)*

**LICENTIATE THESIS ASSESSMENT SHEET
BY THE MEMBERS OF THE ASSESSMENT BOARD**

Assessment of the thesis with the theme:

Developed by the student _____ group _____

Criteria for the licentiate thesis assessment:

1. The quality of the drafting of the thesis and the respecting of the structuring rules:

0,5-2,0 points

Points:

2. Assessment of the quality of the research:

0,5-2,0 points

Points:

3. Bibliography quality:

0,5-1 points

Points:

4. The quality of oral presentation and answers to questions put by the Board:

0,5-4,0 points

Points:

5. Aspects of the work have been published and / or presented at scientific forums:

1,0 points

Points:

**Mark / grade at the stage of assessment
by the Assessment Board**

Board member

S.N., scientific or / and didactic degree

Date: _____

Signature