



Appendix to Resolution No 4/10/2016 of the Council of the Faculty of Management as of 12 October 2016

## **GUIDELINES**

for preparing (Master's, Engineering, Bachelor's) diploma dissertations at the Faculty of Management, Bialystok University of Technology

### **I. Formal requirements**

1. The subject of the diploma dissertation should comply with the main field and specialisation of the studies. Students of two simultaneous specialisations at a given main field of studies and in a specified form of studies can prepare one diploma dissertation that combines both of these specialisations.
2. The diploma dissertation is written by the student independently (or by a team of students of the same or different faculties) under the tutelage of the supervisor – professor, doctor *habilitowany* or associate professor. The Faculty Council may authorise a teacher with a scientific doctor's title or the master's title employed at the position of the senior lecturer for at least 5 years to supervise the diploma dissertation. In the event of a person outside the university, the diploma dissertation can be supervised by a person with at least 5-years' experience in a given profession of the required specialisation. If the subject of the diploma dissertation is submitted by an entrepreneur, the dean may appoint a consultant of this dissertation among the employees of this enterprise who is a holder the master's title. The consultant is invited to the diploma examination. The same principle applies to reviewers of diploma dissertations.
3. The heads of departments submit to the dean proposals of the subjects of diploma dissertations at specific faculties and specialisations of the studies together with the names of their supervisors within the following periods:
  - a) until 15 June in case of studies ending in the following winter semester;
  - b) until 15 January in case of studies ending in the following spring semester.
4. The dean approves the final list of dissertation subjects together with the names of supervisors and forwards it to the heads of departments.
5. The supervisor must observe the limit of the volume of supervised dissertations in a given academic year. The Faculty Council determines the maximum number of dissertations supervised by one supervisor in a suitable resolution.
6. The student undertakes the subject of the diploma dissertation among those approved by the dean.
7. The student is issued the subject of the dissertation in a form of a diploma dissertation sheet (pattern no 2) one semester before finishing the studies. Original diploma dissertation sheets are kept by the supervisor of the dissertation.



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8. The student who fails to undertake the subject of the diploma dissertation before commencing the dissertation semester, is assigned the subject by the supervisor.
9. Any changes in connection with the subject of the diploma dissertation or the supervisor made after the deadline of submitting diploma dissertation sheets are approved by the dean on a written, substantiated motion of the student, which is formerly approved by the supervisor and the head of the department. The student files the application at the Administrative Office of the Department. Upon approving changes in the subject and/or the supervisor, the Office forwards the application to the Dean's Office.
10. Two weeks ahead of the arranged date of the diploma examination, the supervisor forwards a proposal of a diploma dissertation reviewer to the dean through the Administrative Office of the Department.
11. The first pages of the diploma dissertation should include:
  - the title sheet ( pattern no 2);
  - the diploma dissertation sheet (pattern no 2);
  - a one-page abstract in a modern foreign language (pattern no 3);
  - a statement (pattern no 4).
12. The student records the dissertation into the APD system. Upon receiving two positive reviews, the student prints out the dissertation from the APD system and forwards it with a set of documents to the dean's office for the diploma examination. The dean's office confirms the submission of the dissertation with a signature placed on the diploma dissertation sheet.
13. The student must submit the dissertation to the Dean's Office within the following periods:
  - until 28 February in case of studies ending in the winter semester;
  - until 30 September in case of studies ending in the spring semester.
14. The diploma examination is held in the period arranged by the dean, within 30 days from the date of submitting at the dean's office a written version of the dissertation printed out from the APD system (in accordance with the schedule of the academic year).
15. Failure to submit the dissertation within the arranged period results in removing the student from the students list.
16. A person removed from the students list due to the non-delivery of the diploma dissertation may resume studies with the dean's consent in order to submit the diploma dissertation and take the diploma examination in the period not longer than 3 years from the date of the final decision on the removal.
17. The supervisor and one reviewer make evaluation of the dissertation and record it in the form "Review of the diploma dissertation", a document downloaded from the APD system, in accordance with the binding evaluation criteria (Resolution No 7/2012 of the Faculty Council as of 26 September 2012).

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18. The supervisor and the reviewer attach the printed and signed review forms to the student's personal file, which is returned to the dean's office after the diploma examination.

## **II. Substantive requirements for diploma dissertations**

1. The substantive scope of the diploma dissertation should involve:

- substantiation of the selection of the subject and its validity;
- indication of the potential practical application of the dissertation's results;
- formulation of the issue (problem area) being the subject of deliberations;
- determining the objective and the substantive scope of the dissertation;
- review of the literature on the dissertation's subject;
- specification of the methodology of the dissertation's development (achieving the objective);
- solution (analysis/synthesis) of the formulated problem (calculations, figures, results of studies, deliberations);
- detailed and generalised conclusions (summary);
- list of references and used materials.

2. General requirements for bachelor's diploma dissertations:

- the dissertation should present an in-depth description of a given issue, phenomenon, process or enterprise;
- the dissertation should include the student's deliberations and evaluation of the described subject area;
- the dissertation should include practical conclusions (postulates) which are significant in the perspective of the undertaken subject area of the dissertation.

3. General requirements for engineering diploma dissertations:

- the dissertation should include a solution to the engineering task with the use of general and specialist knowledge;
- the dissertation should present the student's knowledge and skills in the scope of applying innovative tools in the engineer's work, including information and computer technologies;
- if the dissertation includes elements of research work, they must be closely connected with the engineer's practice.

4. General requirements for master's diploma dissertations:

- the dissertation should present a solution to the undertaken minor, scientific issues (problems areas), based on the student's own studies,
- the dissertation should present the student's knowledge and skills in the scope of the research workshop (the formulation of the research task, appropriateness and complementariness of research hypotheses, suitable research methodology);
- the dissertation should present the student's skills in the scope of analysing the obtained data and drawing conclusions on their basis;

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- the dissertation should include recommendations and guidelines in the scope of manners of solving the issue under study;
- the dissertation should express a cognitive approach.

5. The diploma dissertation should prove the author's preparation in the scope of using the source literature. It is particularly crucial to demonstrate the skill of using electronic sources and full-text databases of scientific periodicals that are available in the Library of Białystok University of Technology. It is highly recommended to use foreign-language papers.

### **III. The structure of the diploma dissertation**

#### **1. Division into chapters**

A chapter is the basic unit of a diploma dissertation. The dissertation's division should take into account the following principles:

- chapters must reflect the division of the dissertation's contents, namely organise these contents in a final and detailed manner;
- the division into chapters must be clear, logically coherent, excluding repetitions of the same contents in different places of the dissertation;
- the proportions between the volume of chapters should be preserved;
- the title of the chapter must not repeat the contents of the title of the diploma dissertation;
- the titles of the chapters should possibly present detailed information on their contents;
- it is forbidden to include fragments of the text outside the dissertation's layout (chapters and subchapters);
- the introduction and the conclusions should not be numbered.

#### **2. Internal division of chapters**

It is pointless to use excessive fragmenting of the dissertation. It is advisable to apply a two-level internal distribution of chapters (subchapters and sections). The division of the dissertation into subchapters should be based on the following principles:

- highlighting subchapters and sections should be substantiated with the volume of the included text (e.g. the subchapter's volume should not shorter than several pages);
- the titles of the subchapters cannot be identical with the titles of the chapters;
- the principles that apply to chapters are also binding to subchapters and sections.

#### **3. Introduction**

The most significant elements of the introduction are:

- presenting the substantiation for undertaking the subject area, namely the circumstances and the reasons of author's interest in the subject area;
- formulating the objective of the dissertation and the problem area (issue) that is the subject of presented deliberations;
- determining the character and types of sources that were used for preparing the dissertation;

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- presenting the methods and tools used by the author of the dissertation;
- the description of the aimed procedure that corresponds to the division of the dissertation into chapters.

#### 4. Conclusions (summary)

The conclusions should mainly include the synthesis of the results achieved in specific chapters of the dissertation.

The conclusions should include statements and conclusions of the methodological character that refer to e.g. the accessibility of the source data or the applicability of the methods used by the author, as well as utilitarian (practical) ones that indicate the possibility of practical use of the achieved objectives.

The conclusions should include the author's answer to the question whether the objective of the dissertation (formulated at the beginning of the thesis) was achieved. In this chapter the author should also describe potential difficulties encountered in the course of preparing the dissertation and indicate further, desired directions of studies connected with the dissertation's subject area.

#### 5. Table of contents

The table of contents is included on the page that follows the title page, the diploma dissertation sheet and the abstract in the English language.

The table of contents must be complete, which means that it should include all organisational elements of the dissertation. The table of contents should include page numbers indicating the beginning of each highlighted element of the dissertation. The size and shape of the letters in the table of contents should correspond to the one used in the basic text.

Example table of contents:

<b>INTRODUCTION .....</b>	<b>4</b>
<b>1. TITLE CHAPTER 1 .....</b>	<b>7</b>
<b>1.1. Title subchapter 1.1.....</b>	<b>7</b>
<b>1.2. Title subchapter 1.2.....</b>	<b>13</b>
<b>1.2.1. Title section 1.2.1 .....</b>	<b>13</b>
<b>1.2.2. Title section 1.2.2 .....</b>	<b>17</b>
<b>2. TITLE CHAPTER 2 .....</b>	<b>21</b>
<b>2.1. Title subchapter 2.1.....</b>	<b>21</b>

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<b>2.1.1. Title section 2.1.1</b> .....	<b>21</b>
<b>2.1.2 Title section 2.1.2</b> .....	<b>25</b>
<b>2.2. Title subchapter 2.2</b> .....	<b>31</b>
<b>3. TITLE CHAPTER 3</b> .....	<b>37</b>
.....	
<b>CONCLUSIONS</b> .....	<b>63</b>
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#### **IV. Manner of documenting the text**

1. The text of the diploma dissertation should be duly documented.
2. The diploma dissertation should include footnotes with the use of continuous numeration from 1 to n throughout the entire dissertation. The footnotes should be written with a font two sizes smaller than the size of the basic text and single line spacing.
3. For websites, it is crucial to include the name of the website (its author), not only the Internet address. This allows for evaluating the credibility of the materials put on a given website. In citing a website, it is necessary to provide the date of its visit following the address.
4. In citing a book, it is necessary to provide:
  - the first letter of the first name and the full surname of the author (authors);
  - the title of the book (italics);
  - name of the publishing house;
  - place and year of publishing;
  - numbers of pages that include the text cited by the author of the diploma dissertation.
5. In citing publications included in periodicals, it is necessary to provide:
  - the first letter of the first name(s) and the full surname(s) of the author(s);
  - the title of the article;
  - the title of the periodical in inverted commas;
  - the year of the publication followed by the number (no);
  - numbers of pages that include the text cited by the author of the diploma dissertation.

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6. An example of documenting a text with the use of footnotes:

Legal acts	Art. 5 of the Act of 12 April 2009 Environment Protection Law (JL, no 2, item 50 as amended). or Act of 12 April 2009 Environment Protection Law (JL, no 2, item 50 as amended).
Books	J. Wala, B. Czapka, Zarządzanie środowiskowe, Oficyna Wydawnicza Politechniki Białostockiej, Białystok 2009, p. 13.
Collective books (many authors)	J. Wtorek (ed.), Zarządzanie procesowe, Oficyna Wydawnicza Politechniki Białostockiej, Białystok 2009, p. 13. or Zarządzanie procesowe, J. Wtorek (ed.), Oficyna Wydawnicza Politechniki Białostockiej, Białystok 2009, p. 13.
Book chapters	J. Kolalski, Title of the chapter in the book, in: K. Środa (ed.), Title of the book, Oficyna Wydawnicza Politechniki Białostockiej, Białystok 2009, pp. 13-15.
Articles in periodicals	J. Nowak, Bhp w praktyce, „Praca i Zdrowie” 2009 no 5, p. 12.
References to websites	E. Burak, Wielka para rada, <a href="http://www.pb.edu.pl">www.pb.edu.pl</a> [12.04.2010].

7. The list of references drawn up at the end of the dissertation should be arranged in an alphabetical order based on the first letter of the author's surname or the first letter of the title of the publication. In ambiguous situations, the following principles should apply:

- in the event of two or more authors (co-authors) of the dissertation, the alphabetical rule applies towards the first author;
- if the publication highlights no author, it should be included in the list of references in accordance with the letters of the first word in the title;
- a publication resulting from collective work is included in a place indicated alphabetically by the surname of its editor or the title of this publication.

8. For documents that do not exist as independent publications (chapters, articles) outside the parent document, the publishing date must be followed by the location of the publication by means of the numbers of its starting and ending pages.

9. Examples of a list of references:

1. Kolalski J., Title of the chapter in the book, in: K. Środa (ed.), Title of the book, Oficyna Wydawnicza Politechniki Białostockiej, Białystok 2009, pp. 18-40
2. Nowak J., Bhp w praktyce, „Praca i Zdrowie” 2009 no 5, pp. 22-34
3. Wala J., Czapka B., Zarządzanie środowiskowe, Oficyna Wydawnicza Politechniki Białostockiej, Białystok 2009
4. Wtorek J. (ed.), Zarządzanie procesowe, PWE, Warszawa 2009

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## **V. Editorial and language requirements**

1. The dissertation should be prepared with the use of a text editor. It is recommended to apply automatic headlines and lists.

2. Volume of the diploma dissertation

The diploma dissertation should be written on paper in A4 format with the use of Times New Roman font, size 12, 1,5-line spacing and first-line indents equal to 7 mm. The titles of the chapters should be written with bold, 14 pt. fonts, for subchapters – bold, 13 pt. fonts and sections – bold 12 pt. fonts.

The text of the dissertation should be written in accordance to the principle: “new idea – new chapter”. Specific chapters of the text should be justified with regard of the organisation of the margins.

The volume of the diploma dissertation should result from the comprehensive description of the topic.

For diploma dissertations prepared at the Faculty of Management, Bialystok University of Technology, the approved volume of the substantive part of the bachelor’s or engineering dissertation should be 50-60 pages, and master’s dissertations – 80-100 pages.

3. Margins, page numeration

The diploma dissertation should be printed double-sided. The title sheet (pattern no 1), the diploma dissertation sheet (pattern no 2), the one-page abstract in a modern foreign language (pattern no 3) and the statement (pattern no 4) must be printed single-sided.

In numbering the pages of the diploma dissertation, the following principle applies: the first page of the dissertation is the title page, the third page - the diploma dissertation sheet, the fifth – the abstract in a modern foreign language, the seventh - the statement. These pages remain unnumbered.

The first page with the visible number (9) is the table of contents, and the last one – the last page of the dissertation (without appendices). Appendices should be numbered in a continuous manner within each appendix, preceded by A#- (# means the number of the appendix), e.g. A1-13 (page 13 in appendix no 1).

Pages should be numbered in Arabic numerals. Page numbers should be arranged in bottom right corners of odd pages and bottom left corners of even pages.

The chapters of the dissertation should start with new pages. The page on which the new chapter begins need not be numbered.



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The diploma dissertation should include mirror margins with the following widths:

- upper and lower margins – 25 mm;
- inside margin – 30 mm;
- outside margin – 20 mm.

4. The diploma dissertation should not include verbs in the first singular person (I) or verbs in the first plural person (we). The dissertation is written in an impersonal manner or third singular person (abstract narrator). This requirement can be easily met with the use of relevant impersonal verb forms, e.g. instead of “I calculated” – it was calculated; instead of “we can claim that...” – it can be claimed that...; instead of “we need to note” – it should be noted.
5. The title and the number of the table are placed under the table, and the title and the number of the figure – under the figure. In both cases the author must provide the source (under the table or figure). Footnotes to the tables and explanations to the figures are placed directly under the graphic material. Figures and tables are numbered within the chapters with subsequent numbers and preceded by the numbers of the chapters, e.g. Figure 2.3. Title of the figure, Table 1.2. Title of the table.
6. The list of figures and the list of tables must include page numbers on which they were placed.

## **VI. Responsibilities of diploma dissertation supervisors and teachers conducting diploma seminars**

1. The supervisor of the diploma dissertation is obliged to:
  - analyse the schedule of the diploma dissertation suggested by the student and approve it after making potential corrections;
  - regularly check and approve the subsequent stages of work;
  - award a grade for the diploma dissertation, taking into account criteria for evaluating diploma dissertations specified in the appendix to Resolution No 7/2012 of the Faculty Council as of 26 September 2012 on criteria applicable to a diploma dissertations and the manner of their evaluation;
  - verify the carrier with the electronic version of the diploma dissertation, transferred by the dean’s office, against its potential damage and the dissertation’s record from the approved programmes.
2. Academic teachers who conduct diploma seminars are obliged to:
  - discuss the principles of using literature sources and the works of third parties;
  - inform on the consequences of proven violation of copyright;
  - familiarise the student with the Regulations for managing intellectual property rights and commercialisation of the results of intellectual work, as applicable at Bialystok University of Technology;



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- Regulation No 307 of the Rector of Białystok University of Technology as of 23 July 2014 on determining the “Principles for preparing and defending diploma dissertations at Białystok University of Technology”;
- Regulation No 12 of the Rector of Białystok University of Technology as of 14 February 2014 on implementing the “System of student evaluation at Białystok University of Technology”.

## REFERENCES

1. Boć J., Miodek J., Jak pisać pracę magisterską, Kolonia Limited, Wrocław 2009
2. Informacje dla autorów prac naukowych, magisterskich, dyplomowych, Biblioteka Główna Politechniki Warszawskiej, <http://www.bg.pw.edu.pl/index.php/instrukcjadla-autorow> [20.01.2015]
3. Jurewicz S., Naruszewicz S., Popławski T., Wasiak A., Wytyczne i zalecenia w sprawie przygotowania prac dyplomowych (magisterskich, inżynierskich, licencjackich) na Wydziale Zarządzania Politechniki Białostockiej, Wydział Zarządzania Politechniki Białostockiej, Białystok 2007, unpublished material
4. Opoka E., Uwagi o pisaniu i redagowaniu prac dyplomowych na studiach technicznych, Wydawnictwo Politechniki Śląskiej, Gliwice 2001
5. Wolański A., Edycja tekstów. Praktyczny poradnik, PWN, Warszawa 2008