



## **Dean's Regulation No. 02/2020 Methodological Guidelines for writing Diploma Thesis at the Faculty of Environmental Sciences**

### **Article 1 Introductory provisions**

- (1) The Methodological Guidelines for writing Diploma Thesis at the Faculty of Environmental Sciences are binding for all students of the Master's degree study programmes of FES in all forms of study.
- (2) Students are obliged to get acquainted with the Methodological Guidelines and to respect them and comply with them during preparing and writing the Diploma Thesis.

### **Article 2 Closing provisions**

- (1) Dean's Regulation No. 3/2017 is hereby cancelled.
- (2) The Methodological Guidelines come into force and effect on the day of approval of the Academic Senate of FES.

Approved by the Academic Senate of FES on 19 February 2020

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Dean

CZECH UNIVERSITY OF LIFE SCIENCES IN PRAGUE  
FACULTY OF ENVIRONMENTAL SCIENCES



**METHODOLOGICAL GUIDELINES FOR WRITING  
A DIPLOMA THESIS AT FES**

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The “Methodological Guidelines for Writing a Diploma Thesis at the Faculty of Environmental Sciences at the Czech University of Life Sciences in Prague” document is an internal regulation of the Faculty of Environmental Sciences.

The document contains binding standards and rules for the elaboration and defence of diploma theses by students of the Faculty of Environmental Sciences at the Czech University of Life Sciences in Prague and is in compliance with Rector’s Directive No. 5/2019 – Rules of Assigning, Elaborating, Submitting, Archiving and Publishing Bachelor and Diploma Theses at the Czech University of Life Sciences in Prague. **Failure to observe the standards and rules may lead to the rejection of the defence of the diploma thesis.**

**This basic document is followed with individual demands and recommendations of the individual diploma thesis supervisors that may be obtained during consultation.**

The elaboration, submission and defence of the diploma thesis is a prerequisite for the completion of studies. **The elaboration of a diploma thesis is pre-eminently the student’s responsibility.** The supervisor helps the student resolve the basic methodological and conceptual questions. The supervisor may point out formal deficiencies of the thesis and determine the schedule of the individual stages of work together with the student.

The diploma candidate should manifest the ability to independently and creatively elaborate a scientific topic at a corresponding content and methodological level, and the ability to independently work with scientific literature, both domestic and foreign, to search for and sort information and process it into a coherent form, and to use the knowledge acquired during studies.

The theme of the diploma thesis shall correspond with the content of the study programme and the field of study that the student chose, and it shall also relate to the professional issue of educational and scientific activity provided by the Faculty (usually directly related to the research tasks implemented at the Faculty) where the diploma thesis has been assigned.

**The diploma thesis (hereinafter DT)** elaborated by students of FES at the Czech University of Life Sciences in Prague may have the character of:

- study,
- experimental DT or processing of existing data,

- development of author's software and information systems, advanced data analyses,
- project,
- environmental expertise.

A **study** is primarily based on a text analysis of the selected issue or literary research. It means looking for or verifying facts, data, information; a secondary document containing a list of document records or a summary of other information, such as evidence-based information corresponding to the research requirement. For the purpose of the DT, the text analysis is supplemented with map analyses and the result is a suggestion of a resolution to the problem in text and graphic form. The DT may contain a meta analysis of data acquired from used literature. For more details, see Chapter 11 herein.

An **experimental DT or existing data processing DT** is based on information that the author of the thesis acquires by their own activity (e.g. field measurements) and by studying literature. At the beginning of the thesis, a scientific question and a follow-up hypothesis to be tested are formulated. The procedures aimed at answering the question and leading to recommendations regarding the hypothesis (methodology) are then proposed, the obtained results are interpreted in relation to the question and then confronted with the findings that the author acquired from the study of scientific literature (discussion). For more details, see Chapter 12 herein.

The result of a thesis on the **development of author's software and information systems, advanced data analyses may be**, for example, separate software, a module for current software, analysis of an issue for the future creation of software, a proposal of the structure and functionality (geographical) information system with/without implementation, research, the use and assessment of advanced methods of processing (spatial) data and so on. This type of thesis also includes theses that use GIS tools for the solution of a specific scientific or practical problem at a high level. A creative approach by the author is usually required, including the problem analysis and its solution. For more details, see Chapter 13 herein.

A diploma thesis in the form of a project focuses on the preparation of a plan for future activity and its outcome in the form of a construction. The project has a clearly defined objective and aims at clearly defined outcomes. The project may target one or more alternative solutions. The project includes the provision of groundwork and its assessment. A field survey is essential. When preparing DT in the form of a project, knowledge of the principles of making drawing documentation is a prerequisite. Knowledge of work in one of the CAD (Computer Aided Design) systems is standard. For more details, see Chapter 14 herein.

A diploma thesis in the form of **environmental expertise** is based on the assessment of the effect of a selected development activity on the assigned elements of the environment (in the area of interest according to the student's suggestion). The diploma candidate prepares detailed literary research of the topic and several solution alternatives (including zero) and then compares the

alternatives. The results of the thesis are presented in a text and, above all, graphic form. For more details, see Chapter 15 herein.

## 1. Selecting diploma thesis topic

- the obligation to choose a topic is stipulated in Dean's Directive No. 2/2020 – first year students in the follow-up master study programme shall choose the diploma thesis topic according to the UIS topics no later than by the 6th week of the summer semester (the precise deadline is determined in the FES schedule for the academic year in question – [www.fzp.czu.cz](http://www.fzp.czu.cz)), first year students in the follow-up master study programme in the Nature Protection field shall choose the diploma thesis topic according to the UIS topics no later than by the end of the winter semester.
- students can choose from the topics announced in the University Information System of CZU (hereinafter "UIS") at <https://is.czu.cz>, or on the department notice boards, department websites, or they can suggest their own topic (e.g. based on their previous practical experience),
- lecturers enter diploma thesis topics (hereinafter "DT") in UIS by the deadline stated in the FES schedule for the academic year in question in compliance with Dean's Provision No. 2/2020,
- supervisors of diploma theses are primarily the academic staff of the faculty where the student preparing the thesis is registered in a study programme,
- lecturers have the right to announce a competition for the thesis topic. During the competition, students defend their interest in the topic according to the terms and conditions of the competition.
- students may only work on their own topic provided that they address a lecturer at CZU who would be willing to expertly supervise such DT,
- when the DT supervisor is outside FES, the Application for BT/DT Supervision outside FES signed by the head of the supervisor's department and by the guarantor of the field of study must be submitted to the FES Study Department. The application is approved by the dean of the faculty where the student is enrolled, see Rector's Directive No. 5/2019 – Rules of Assigning, Elaborating, Submitting, Archiving and Publishing Bachelor and Diploma Theses at CZU,
- students discuss the specification of the topic with the DT supervisor. They agree on further procedures and terms and conditions of preparation, available sources for the work, including the possibilities of practical application;
- in addition to the thesis supervisor, an expert consultant may also be appointed, with whom the student consults the technical requirements of their work. The thesis consultant **cannot** simultaneously be the opponent to the thesis.
- the DT supervisor assigns the DT topic to the student in the UIS system.
- the assignment in UIS is automatically cancelled when there is a change in the DT supervisor and the entire approval process must be repeated.

## 2. Diploma thesis assignment preparation

- when the student wins a DT topic in a competition at <https://is.czu.cz>, they contact the lecturer who assigned the topic,
- when no competition is announced for the thesis topic, the student contacts the thesis supervisor who announced the topic,
- when the student has their own topic – see Section 1 above. Selecting diploma thesis topic,
- the thesis supervisor, or a department employee designated by the head of the department, enters the “Diploma Thesis Assignment” in the UIS system (required information: Czech title of the thesis, English title of the thesis, thesis type – BT/DT, language of the thesis, SBE date – June 20XX or January 20XX),
- The assignment of the final – diploma thesis shall be provided on an official form of FES, in electronic form in the CZU University Information System.
- The diploma thesis assignment passes through an approval procedure, completed with an electronic signature of the head of the department where the thesis is registered and the FES dean. An assignment that contains all the particulars can be printed directly from UIS.

## 3. Guidelines for writing a diploma thesis

### 3.1 Formal requirements

- The **recommended minimum scope** of DT is about 40 standard pages of text without appendices (one standard page has 30 lines with 60 characters), the maximum scope is not determined (to be recommended by the supervisor). A shorter DT may only be elaborated on the basis of a prior agreement with the supervisor. Similarly, any DT form that differs from the standard layout must be consulted with the supervisor – such as a DT as a file of published articles or articles ready to be published (manuscripts).
- The **size of the margin** should be 2.5 cm at the top, bottom and external margin, and 4 cm on the internal margin; the mirrored dimensions are 145 mm x 247 mm. The internal margin of 4 cm is determined with respect to the binding.

- **Pages are numbered** at the bottom (footing). It is not recommended to number the pages on the left or inside as the numbers could be covered by the binding. Numbering starts on the page with the "Introduction".
- **Font** – it is recommended to use Arial, Times New Roman.
- **Type size** of the text = Arial 11, Times New Roman 12, the type size for descriptions of pictures, graphs, tables, etc., can be 9-11.
- **Spacing** is recommended from 1 to 1.5. It is recommended to separate individual paragraphs with a smaller gap (such as 6 points) to provide good arrangement of the text.
- **Chapters** – chapters are numbered with Arabic numerals starting at 1 (this is usually the Introduction), with a graphically separated heading. The decimal sorting system is used (1., 1.1, 1.1.1). It is recommended not to use more than three levels of chapter numbering (for example, 1. – the whole chapter, 1.1 – a part of the chapter, or 1.1.1 as a part of the subhead), exceptionally, it is possible to use four levels. There is no dot after the last number in multi-level chapter numbering (e.g. 2.1.3), there is a dot in single-level numbering (e.g. 2.).
- **Text editing** – the text is written in A4 format, only on one side, it can be prepared using MS Office or Open Office programmes. The thesis is a technical report, therefore it is required to pay attention to the explicitness, objectivity and comprehensibility of the information and the text. The work must be easy to read, without any typing errors or misspellings. The **language arrangement** shall comply with the valid regulations (Czech language rules). The thesis is written in the past passive voice, only methodology may be written in the first person singular (not recommended). It is not recommended to use the first person plural as it indicates more than one author.
- **GRAPHS AND PHOTOGRAPHS ARE FIGURES!**
- **References in text** – are required with figures, tables, formulas and appendices.
- **Numbering figures, tables, formulas, and appendices** – figures, tables, etc., must be separated and each group of objects must be assigned its own numbering in a continuous series  
(Fig. 1, Fig. 2, Fig. 3, etc.; Tab. 1., Tab. 2., Tab. 3, etc.; Appendix 1, Appendix 2, Appendix 3, etc.).
- The **descriptions of figures, tables and formulas** shall be provided individually and they must describe the illustrated fact in detail. Any adopted figures and tables must include the prescribed citation (= reference to the original literary source). Any figures and tables created by the author do not need to have a reference; authorship applies to the entire thesis. The description shall contain the number and title of the object and a brief explanation of the content that helps readers understand the illustrated facts. Information presented in the object must be comprehensible from the description. Descriptions may be placed above and below objects, however, the selected layout needs to be uniform in the entire thesis.

- When signs, symbols and abbreviations are used in the text, objects or appendices, a legend needs to be enclosed. The **legend** must be legible and contain all the elements that cannot be otherwise identifiable. The legend may be placed within the description above and below the figure, table, graph or appendix.
- **Appendices** may be separated from the text and bound separately in justifiable cases (for example, a lot of maps). Appendices that contain larger formats may be placed in a tube provided with a label that contains the DT title, author's name, supervisor's name, university, faculty and department, and the year of publication.
- **Thematic maps** created by the diploma candidate shall respect basic cartographic rules (e.g. contain the required map elements). This especially applies to maps in appendices. Simple maps in the text may be presented as figures – the rules for figures then apply.
- Every **abbreviation** shall be explained when first used in the text. If needed (for example, a large number of abbreviations are used), it is possible to add a list of abbreviations and their meanings in a separate appendix.
- **Scientific names** of plant and animal taxons are always written in cursive. When a taxon is first mentioned, both the Czech and Latin name is provided, then only one of them (in a uniform way).
- The text should respect basic topographic instructions.

### ***3.2 Required parts of BT***

DT **shall include** the following order of the **required parts of the thesis**:

- binder and cover sheet (Appendix No. 1),
- diploma thesis assignment,
- DT author's statement (Appendix No. 1),
- abstract, key words (Czech and English),
- DT table of contents of DT (with references to the page numbers),
- introduction,
- DT objectives,
- methodology,
- the thesis – itemisation depends on the type of thesis, see below,
- outcomes,
- discussion,
- conclusion and contribution of the thesis,

- bibliography and sources used,
- appendices.

The **pages are numbered** from the Introduction chapter, i.e.,

1. Introduction ..... 1

### **3.2.1 Binder and cover sheet**

The binder includes the name of the university, type of thesis (diploma thesis in this case), year of publication, and the author's name and surname. The faculty can also be included below the name of the university (example – Appendix No. 1).

The cover sheet includes the name of the university, faculty, department, DT title, type of thesis (diploma thesis in this case), name and surname of the DT supervisor with titles, author's name and surname, and year of publication (example – Appendix No. 1).

### **3.2.2 Diploma thesis assignment**

The assignment of DT shall be printed from the UIS and electronically signed by the head of the department and the dean of the faculty.

### **3.2.3 DT author's statement**

This is where the student states that the thesis is their own work, using the following wording:

*I hereby declare that I have independently elaborated the diploma/final thesis with the topic of: ..... and that I have cited all the information sources that I used in the thesis and that are also listed at the end of the thesis in the list of used information sources.*

*I am aware that my diploma/final thesis is subject to Act No. 121/2000 Coll., on copyright, on rights related to copyright and on amendment of some acts, as amended by later regulations, particularly the provisions of Section 35(3) of the act on the use of the thesis.*

*I am aware that by submitting the diploma/final thesis I agree with its publication under Act No. 111/1998 Coll., on universities and on the change and amendments of some acts, as amended, regardless of the result of its defence.*

*With my own signature, I also declare that the electronic version is identical to the printed version and the data stated in the thesis has been processed in relation to the GDPR.*

The student adds the date and place of the statement and signs it (Appendix No. 1).

### **3.2.4 Abstract, key words**

DT also includes a Czech and English abstract, the purpose of which is to summarise the following in about 0.5-1 page:

- objectives of the thesis and the method of fulfilling them,
- definition of the area to be resolved,
- major methodological procedures,
- primary results,

- contribution of the thesis (author's own contribution to the area of resolution).

Key words (3-5) that describe the purpose of the DT well are stated below the abstracts. They should not include words used in the title of the thesis (your thesis is searched for using the key words and the title; using the same words reduces the search possibilities).

### **3.2.5 DT Table of Contents (with references to the page numbers)**

The itemisation of the thesis shall be obvious from the Table of Contents. Each chapter must be marked with the page number where it starts.

### **3.2.6 Introduction**

The introduction must clearly imply why the DT is written. It includes a brief summary of the current state of play (with references to the sources), i.e., a description of what facts are known in relation to the topic and what is not known (e.g. with regard to the concerned scientific issue and research focus, solution for a particular locality or institution, character of the data, methods, etc.) That implies the substantiation of the solution. Something is known or elaborated and the thesis deals with a particular part of the problem that has not yet been resolved (again, e.g., in relation to research, locality, methods, etc.). Such an introduction logically implies objectives.

Considering that it is a scientific work, it is recommended to avoid formulations explaining the author's relation to the topic, such as "I have always loved animals and want to help protect the poor creatures", "I used to watch the sky when I was a small boy and wonder what those moving lights were", and so on.

### **3.2.7 Objectives of the thesis**

The chapter shall include:

- clearly formulated objectives of the thesis and the method of achieving them,
- anticipated own contributions.

### **3.2.8 Methodology**

The student shall describe each methodological step in detail and explain why it was used. Methodology shall be described in such detail so that it would be possible to repeat it based on the description. The student shows that they understand the given issue. Mere references to literature are definitely not sufficient. Methodology may also include a description of the interest area.

### **3.2.9 Results**

The aim of this chapter is to present substantive results in the form of texts, graphs, tables or maps. Detailed results of analyses – primary data, additional graphs and maps should be stated in the appendices. The results of statistical tests shall be presented according to the rules (state the name of the test used, sample size, test statistics value, degree of freedom, the determined and achieved level of probability).

Do not provide lists of never-ending tables and thousands of graphs from individual analyses; always include only important results.

### **3.2.10**      *Discussions*

The student can provide their own opinions on the inputs, results and procedure in this section (regarding quality, other options...), but, above all, the student should discuss (compare) with results and procedures of other authors. However, the discussion should avoid simple repetition of information already known from the Results chapter. The results of the thesis should be put into a broader framework in the discussion.

### **3.2.11**      *Conclusion and contribution of the thesis*

The DT conclusion shall include:

- summary of the results, findings acquired by elaboration of the DT,
- contribution of the author to the resolved problem,
- evaluation of the applicability of the achieved results, or other suggestions for solutions in the concerned area.

It is not suitable to include very general conclusions, such as ‘The thesis has shown that the planet needs to be protected’, ‘In conclusion, my research has confirmed that GIS is an important tool for...’, and so on.

### **3.2.12**      *Bibliography and sources used*

The origin of the ideas in the DT must be obvious. Therefore, we use citation ethics, the result of which is a list of bibliography and other used sources. For more details see Chapter 4 herein.

A list of used literature in the DT usually includes at least 40 scientific sources, of which at least 1/3 are foreign scientific sources. Literature from internet sources (non-professional, non-scientific) should be supplementary only; printed literature and articles from the electronic versions of scientific magazines should be the foundation. **The availability and scope of literature depends on the topic of the thesis and the supervisor shall determine the “minimum number” of cited Czech and foreign scientific and academic literature.** When the number of domestic or foreign sources is considerably lower, the supervisor shall include this information in the DT assignment.

### **3.2.13**      *Appendices*

This is where the student includes the outcomes (maps, figures, tables, photographs, etc.) that cannot be inserted in the text, whether due to size or for other reasons. Appendices are numbered separately.

**These are the requirements for all types of DT (study, experimental DT or processing of existing data, author’s software, IS proposal, environmental expertise) aside from the project**

type. A more detailed layout of the chapters according to the individual DT types is further provided in other chapters herein (Chapter 11-15).

### **3.3 Optional parts of BT**

DT may include:

- **acknowledgement** – when the student decides to include acknowledgement in the thesis, it should have a similar layout as the Statement (example – Appendix No. 1). The acknowledgement is placed after the author's statement. The student can include anyone in the acknowledgement who they would like to thank for any help and support (thesis supervisor, consultant, parents, etc.) – however, not the opponent). It is required to mention any potential used source of financing (grant, sponsorship, etc.).
- **lists of figures, tables, formulas and appendices** – when the student decides to include these lists, they should follow after the Bibliography.
- **terminological vocabulary** – when the student decides to use the vocabulary, it should be stated before the Bibliography. Terminological vocabulary is only included in the case of highly specialised scientific terminology.
- **list of used abbreviations and symbols** – when the student decides to use this list, it should be included before the Introduction.

**The proportionality of the individual chapters differs. Chapters such as Literary research, Methodology, Characteristics of the interest area, Current state of play and the Results are more extensive. The Discussion is usually shorter (3-5 pages). The Introduction, Objectives of the thesis, Conclusion and Contribution of the thesis (written in the one's own words) are usually 1-2 pages long, with emphasis placed on their clear and precise formulation.**

## **4. Citation ethics**

- The DT must respect the copyright and citation standards. It must include citation references in the text and a list of literature or other sources. These two things must be in compliance, which means that the reference in the text has to be included in the list of literature and vice versa,
- a citation differentiates any adapted information from the author's own text; therefore, all adapted information must include a reference to the original source, similarly, sources need to be stated for any adapted figures, graphs, tables, photographs or diagrams,

- **the student guarantees** adherence to the copyright and **originality of the thesis**, as well as providing a list of used literature and accurate citations. The thesis will not be accepted in the case of a failure to observe the rules and a disciplinary procedure may lead to expulsion from study. At the same time, there might be a response and defence from authors whose works were misused, which might lead to legal proceedings,
- the rules apply to both printed and electronic texts (for example, if published on the internet),
- **the DT author correctly cites when they only adapt an idea from scientific work**, not the entire text; the original text is adjusted stylistically for the needs of the student's text but the idea must be preserved, and above all, it must be cited!
- with regard to the formal part of citations, the student should follow the recommendations in this document or conventions used in prominent professional or scientific periodicals (reviewed or with IF) of a corresponding specialisation,
- the student should select a method of citation at the beginning of the DT that will be followed uniformly throughout the thesis!
- A list of used literature within the DT usually includes at least **40 scientific sources, of which at least 1/3 are foreign scientific sources**. Literature from internet sources should only be supplementary; printed literature should be the foundation. The availability and scope of literature depends on the topic of the thesis and the supervisor shall determine the "minimum number" of cited Czech and foreign scientific and academic literature.
- The **DT is subject to a plagiarism check** (see Article 6 of Rector's Directive No. 5/2019). Any thesis that shows more than a 10% concordance with the texts of other authors is considered to be plagiarised when such texts are included in the thesis without proper citations. Also, any thesis that shows more than 20% concordance with the texts of another author, even with proper citations, shall be considered to be plagiarised as the texts are adapted as a compilation of coherent parts elaborated by another author. **Concordance of the thesis** with other previously published texts of the author (e.g. **bachelor thesis**) is not considered plagiarism. However, the total amount of such concordance (the number of concordances with other theses) **must not exceed 40%**. A thesis that does not include proper citations for more than 10% of the literary sources listed at the end of the thesis in the list of information sources shall also be considered non-compliant.

#### Citations – references in the text:

- an idea or information is adapted, NOT the stylistic formulation – the style is reworked to fit in the text, however, the idea must be preserved and cited,
- the text should always imply where the information was taken from. The reference can be stated after a specific number, sentence, paragraph and so on.

- references after the cited part should be stated in the form of **surname + year in round brackets** (Novák 1980) or (Novák, 1980). When there are two authors, they are separated using a conjunction or a comma:
  - (Novák et Nováková 1980) / (Novák et Nováková, 1980),
  - (Novák & Nováková 1980) / (Novák & Nováková, 1980),
  - (Novák a Nováková 1980) / (Novák and Nováková, 1980),
  - (Novák, Nováková 1980) / (Novák, Nováková, 1980),
- When there are three and more authors, only the first author is stated, followed with “et al” or “and coll.,” “& coll.” (Novák et al. 1945) or (Novák and coll. 1945) or (Novák & coll. 1945) – it is important to follow a uniform method in the entire thesis, i.e., to choose the use of the “et” conjunction, or “and”, or “&” and not to combine them,
- when the author has published several works in the given year, they are differentiated using a, b, c, etc., both in the text and in the list of literature (Novák 2008a). When the surnames of various authors are the same, they are differentiated using an abbreviation of their first name,
- when you cite from several sources, these should be stated chronologically and in an ascending order in the text (Novák 2007; Nováková 2008; etc.), also alphabetically within the same year,
- when the author is not a person, use the name or abbreviation of the corporate authority that is responsible for the contents of the document (MŽP ©2008, IUCN ©2016, Botanický ústav AV ČR ©2016). Articles, maps and such that are not signed are labelled as anonymous (Anonymous 2001) or (Anonym 2001),
- it is recommended to choose a suitable character style when stating the author (small caps, all caps). Once again, it must be uniform throughout the thesis,
- references can also be incorporated in the text – it makes it look more professional: *as NOVÁK (1961) mentions it is..., however, on the other hand, NOVÁKOVÁ (1995) states...* In this case, some scientific periodicals require that the author is stated in the first case, so word connections such as *according to NOVÁK (1961)* should be avoided,
- the text should not be adapted with references to the sources (secondary citation). In such case, it is required to find the original source and cite it. When it is not possible after searching and reading the original ideas of an author (e.g. the publication cannot be found in specialised libraries, at the Web of Knowledge, in archives), it is possible to cite in the form of “A ex. B”. That means you are adapting information for your text that “A” cited “B” in their work (e.g. Novák 2000 ex. Nováková 1736),
- **the references to the sources must also be provided in all adapted figures, graphs, tables, photographs and appendices.** When figures or photographs come from a single source, it does not have to be cited for each individual figure but it can be mentioned under

Methodology, such as The photographs used in the thesis were taken by the author in October and November 2015.

- **the discussion** may include a citation of an unpublished opinion or result, stating the author and the note (not published), or provided personally = in verb (verbally), or in writing = in litt. (written), or (pers. comm.). Such citations are not listed under the cited works. To be more precise, it is recommended to also include the name and date, or at least the year in the case of personal comment (Jan Novák, IV. 2007, in verb.); (Jan Novák, IV. 2007, in litt.); (Jan Novák, IV. 2007, pers. comm.).

### Citations – bibliography:

- the references must include all of the citations that are referred to in the text and there must not be any extra sources or any missing sources,
- every citation is a part of a sentence (e.g. the full stop is after the citation),
- citations in the bibliography are divided into:
  - scientific publications (scientific books, monographs, articles in scientific periodicals, chapters in a book, articles in manuscripts),
  - legislative sources (act, decree, standard),
  - internet sources,
  - other sources (project documentations, methodological guidelines, handbooks, bachelor or diploma theses, information brochures, manuals),
- citations in the bibliography must be sorted in alphabetical order by the author's surname and when there are several citations from one author, the publications that the author wrote are first listed chronologically, then those where there are two authors and so on (e.g., in this order: Novák P., 2007; Novák P., 2008; Novák P. & Brouček, K., 2001),
- every citation element must be clearly separated from the following elements, that is using separating punctuation (full stop, comma, etc.). The selected layout must be uniform in the entire thesis,
- the student can choose graphic design according to the practices in the given field, however, all the citations within the thesis have to have the same graphic design and they have to be formally uniform (e.g. do not combine the use of Latin/Czech/English abbreviations). The list must be well-arranged and provide for an easy search,
- it is also possible to include other details: what edition, title of the edition, etc. It is possible to list the ISBN number at the end of the citation (however, most scientific periodicals do not require that).

- in the case of unpublished reports (e.g. bachelor/diploma theses, project documentations, etc.), “unpublished” is stated after the citation of the work and the place where the work is archived (stored): "Dept.: Name of the corresponding archive",
- when there are several authors, do not use “and collective” in the bibliography (and coll., et al.). All the authors are listed in the bibliography, or editor (ed.) or editors (eds.) with the corresponding abbreviation,
- when a figure is adapted from the internet, it is not required to state the internet address as a part of the figure description, especially when the link is longer than the title of the figure (see below),
- the following order shall be observed within a citation:

**Scientific books, monographs:** Author’s surname, first letter of the author’s name (full stop, comma), year of publication (colon): Title of the book (full stop). Name of the publisher (comma), place of publication (comma or full stop): number of pages (full stop). The number of pages does not need to be provided; the citation then ends with the place of publication, or it is possible to include an ISBN.

Example:

- Kovář P., 2014: Ekosystémová a krajinná ekologie. Nakladatelství Karolinum, Prague, 169 pp.
- Buček A. et Lacina J., 1999: Geobiocenologie II. Mendel University in Brno, Brno, 240 pp.
- Culek M. [ed.], 2005: Biogeografické členění České republiky II. Nature Conservation Agency of the Czech Republic, Prague, 589 pp. + CD.
- Chytrý M., Kučera T., Kočí M. [eds.], 2001: Katalog biotopů České republiky. Nature Conservation Agency of the Czech Republic, Prague, 304 pp.
- Ministry of the Environment, 2004: National Environmental Policy of the Czech Republic 2004-2010. Ministry of the Environment of the Czech Republic, Prague, 56 pp.
- Sutherland W. J., 2000: The Conservation Handbook: Research, Management and Policy. Blackwell Science, Oxford, 278 pp.

**Article in a scientific periodical:** Author’s surname (may be followed with a comma), first letter of the author’s name (full stop, comma), year of publication (colon): Title of the article (full stop). Name of the magazine or the official abbreviation of the magazine and issue, or year/issue (full stop), number of pages (full stop). The number of pages is required in a magazine, it can be stated as pp. 1-10, or just 1-10. Or just provide an ISSN.

Example:

- Itami R. M., Simulating spatial dynamics: cellular automata theory. Landscape and Urban Planning 30. Pp. 27-47.

- Dover J. W., 1997: The importance of shelter for butterflies in open landscapes. *Journal of Insect Conservation* 1: 89-97.
- Chytrý M. et Rafajová M., 2003: Czech National Phytosociological Database: basic statistics of the available vegetation-plot data. *Preslia* 75: 1-15.
- Ložek V., 1988: Měkkýši a změny prostředí. *Památky a příroda* 13: 547-553.
- Tveit M. S., 2009: Indicators of visual scale as predictors of landscape preference; a comparison between groups. *Journal of Environmental Management* Volume 90, Issue 9. Pp. 2882-2888.
- Ervin D. E., 1982: Soil erosion control on owner-operated and rented crop land. *J. Soil Water Conserv.* 37 (5), 285-288.

**Chapters in a book, articles in manuscripts:** Surname of the chapter's author (may be followed with a comma), first letter of the author's name (full stop, comma), year of publication (colon): Title of the chapter (full stop). In: Surname of the book's editor or book's authors and the first letter of the author's name (ed., eds., colon): Title of the book, manuscript (full stop). Name of the publisher (comma), place of publication (comma or full stop), number of pages (full stop). When there are several editors, use the abbreviation (eds). Or just provide an ISBN.

Example:

- Dokoupil, J., 2004: Hraniční efekt. In: Jeřábek, M., Dokoupil, J., Havlíček, T and coll.: České pohraničí – bariéra nebo prostor zprostředkování? Academia, Prague. Pp. 53-56. ISBN 80-200-4051-3.
- Vorel, I., 2007: Aktuální problémy v ochraně charakteru krajiny a krajinného rázu. In: Vorel, I., Kupka, J. (eds.): Aktuální problémy ochrany krajinného rázu 2007. Sborník příspěvků z odborného semináře. Nakladatelství Centrum pro krajinu s.r.o, Prague. Pp. 5-8.
- Pyšek P., 2005: Zavlečené a invazní druhy jako indikátory změn biodiverzity. In: Vačkář D. (ed.): Ukazatele změn biodiverzity. Academia, Prague: 129-146.

**Internet source – monograph, article on web portals:** Surname of the article's author (may be followed with a comma), first letter of the author's name (full stop, comma), year of publication (colon): Title of the article (on-line) [cit. date in the format year.month.day] (comma), available at <website> (full stop)

Example:

- Svobodová, K., 2011a): Krajina a krajinný ráz ve strategickém plánování (on-line) [cit. 2012.04.04], available at <[http://cvut.mapovyportal.cz/krajina\\_krajinny\\_raz.pdf](http://cvut.mapovyportal.cz/krajina_krajinny_raz.pdf)>.

- Mana, V., 2007: Krajinný ráz – poznámky a náměty k jeho hodnocení a hodnocení vlivu záměrů (on-line) [cit. 2012.04.10], available from <[http://www.belbo.cz/wp-content/uploads/2009/12/Krajiny\\_raz\\_met\\_nav.pdf](http://www.belbo.cz/wp-content/uploads/2009/12/Krajiny_raz_met_nav.pdf)>.
- Sklenička, P., 2002: Ochrana krajinného rázu v procesu EIA (on-line) [cit. 2012.04.18], available at <[http://www.centrumprokrajinu.cz/doc/PDF\\_21.pdf](http://www.centrumprokrajinu.cz/doc/PDF_21.pdf)>.
- Vorel, I. 2003: Studie ochrany krajinného rázu na území vybraných přírodních parků Plzeňského kraje (on-line) [cit. 2012.04.20], available at <<http://www.kr-plzensky.cz/cs/article/studie-ochrany-krajinneho-razu-na-uzemi-vybranych-prirodnich-parku-plzenskeho-kraje?sekce=all>>.

**Internet source – websites of institutions, municipalities:** Name of the institution (municipality) or generally known and used abbreviation of the institution (e.g. Abbreviation of the institution – name of the institution) (comma), ©year of publication (colon): Title of the article (on-line) [cit. ????.???.??] (comma), available at <website> (full stop)

Example:

- AOPK ČR, ©2016: Správa CHKO Beskydy (on-line) [cit.2012.04.20], available at <<http://www.beskydy.ochranaprirody.cz>>.
- INSTITUTE OF BOTANY OF THE CZECH ACADEMY OF SCIENCES, ©2016: Oddělení ekologie invazí / Department of Invasion Ecology (on-line) [cit.2014.12.03], available at <[http://www.ibot.cas.cz/invasions/index\\_cz.html](http://www.ibot.cas.cz/invasions/index_cz.html)>.
- ČÚZK, ©2015 a): State Administration of Land Surveying and Cadastre: Stručná historie pozemkových evidencí (on-line) [cit. 2015.11.24], available at <<http://www.cuzk.cz/Katastr-nemovitosti/O-katastru-nemovitosti/Historie-pozemkovych-evidenci.aspx>>.
- ELC, ©2000: European Landscape Convention (on-line) [cit. 2015.10.19], available at <[http://www.mzp.cz/C1257458002F0DC7/cz/evropska\\_umluva\\_o\\_krajine\\_smlouva/\\$FILE/OZ\\_V\\_anglicky\\_text\\_EoUK\\_20120125.pdf](http://www.mzp.cz/C1257458002F0DC7/cz/evropska_umluva_o_krajine_smlouva/$FILE/OZ_V_anglicky_text_EoUK_20120125.pdf)>.

**Legislative materials – act, decree, standard:**

- be aware of the fact that an act, decree or standard is characterised by its number, so the word of act, decree, standard starts with a capital letter only when at the beginning of the sentence,
- citation in the text: ...under Section 2 of Act No. 114/1992 Coll.; in Decree No. 13/2014 Coll., it is stated...; CSN 736109 states...;
- when the regulation is used more often in the thesis, it is possible to state “(hereinafter the Act)” in brackets after the first full citation,

- Remember that acts are frequently amended and it is required to specify precisely which amendment you have in mind. When it is the latest one, then use the formulation “as amended’

Example:

- Act No. 114/1992 Coll., on nature and landscape protection, as amended.
- Act No. 139/2002 Coll., on land consolidation and land offices, as amended.
- Decree No. 13/2014 Coll., on the procedure of land consolidation and particulars of land consolidation proposals, as amended.

**Technical standards:** Denomination (colon), Name (full stop), Publisher (comma), Place of publication (comma), Year of publication (full stop), Number of pages (full stop).

Example:

CSN 73 6109: Design of field roads. Czech Office for Standards, Metrology and Testing, Prague, 2013. 36 pp.

**Bachelor/Diploma theses:** Author’s surname, first letter of the author’s name (full stop, comma), year of publication (colon): Title of BT/DT (full stop). Name of the university (comma), name of the faculty (comma), or name of the department (comma), place of publication (comma or full stop). Number of pages (full stop). (bachelor/diploma thesis) (full stop). "unpublished". Dep. Name of the corresponding archive (full stop).

Example:

- Novák, F., 2011: Vliv těžby hnědého uhlí na krajinu. Czech University of Life Sciences, Faculty of Environmental Sciences, Prague. 78 pp. (bachelor thesis). "unpublished". Dept. SIC CZU in Prague.
- Nováková, R., 2015: Historická analýza území. Czech University of Life Sciences, Faculty of Environmental Sciences, Department of Land Use and Improvement, Prague. 152 pp. (diploma thesis). "unpublished". Dept. SIC CZU in Prague.

**Project documentations:** Name of the institution (full stop, comma), year of publication (colon): Title (full stop). Publisher (comma), place of publication (comma or full stop), number of pages (full stop). "unpublished" (full stop). Dept.: Name of the corresponding archive (full stop).

Example:

- HYDROPROJEKT, 1993: Komplexní pozemková úprava v k. ú. Přítoky – Technická opatření KPÚ, 43 pp., “unpublished”. Dept.: Kutná Hora Land Authority.
- Novák, K., 2001: Kněževes – kostra společných zařízení, project documentation. 56 pp., “unpublished”. Dept.: Rakovník Land Authority.

- Kuneš, K., 2001: Projekt výsadby a údržby doprovodné zeleně v k.ú. Nová Ves u Kdyně. 53 pp., “unpublished”. Dept.: Kuneš, K., Klenčí pod Čerchovem.

**Handbooks (manuals), guidelines, etc.:** Name of the institution (full stop, comma), year of publication (colon): Title (full stop). Publisher (comma), place of publication (comma or full stop), number of pages (full stop).

Example:

- FES, 2012: Modelování změn v krajině – návody ke cvičením. FES CZU, Prague, 41 pp.
- FES, 2016: Methodological Guidelines for Writing DT at FES. FES CZU, Prague, 36 pp.

**Figures (graphs, photographs), tables, appendices, etc.:**

Example:

**In the text:**

Denomination (figure, table, appendix, etc.) number (colon): Name of the figure, table, appendix, etc., and a link to the source in brackets – author, institution, or internet address (full stop).

Figure 1: Common kingfisher (Ošmyk, 2011)

Figure 2: Matrix porosity and connection (Forman et Godron, 1993).

Table 5: Categories of specially protected areas (Nováková according to the Control List of Nature Protection, 2016)

Appendix 1: Assessed route R 49 with marked construction sections ([www.mapy.cz](http://www.mapy.cz) modified by Novák, 2012).

**In the list of figures:**

Figure 1: Common kingfisher (Ošmyk, J.: Videos for gamekeepers, hunters, woodsmen (on-line) [cit. 2012.04.20], available at <<http://www.nature-photogallery.eu/cz/foto/2881-lednacek-ricni-samecek/>>.

Figure 2: Matrix porosity and connection (Forman et Godron, 1993).

Table 5: Categories of specially protected areas (Nováková according to the Control List of Nature Protection <http://drusop.nature.cz/>).

Appendix 1: Assessed route R 49 with marked construction sections ([www.mapy.cz](http://www.mapy.cz) modified by Novák, 2012).

It is possible to cite a URL in case the links to websites are long:

Example:

**In the text:**

Figure 3: Development of the monitored section of Lázeňský Stream – A) in the years 1836-1852 – Second period of military mapping (URL 1), B) in the years 1877-1880 – Third period of military mapping

(URL 2), C) in an image map from 2002-2003 (URL 1), D) in a contemporary image map – after the implemented recovery (URL 1)

Figure 11. Eurasian beaver (*Castor fiber*) (URL 3)

**In the list of figures:**

URL 1: <<https://mapy.cz/>> [cit. 3016.05.20]

URL 2: <<http://oldmaps.geolab.cz/>> [cit. 3016.05.20]

URL 3: <<http://www.bobroviny.cz/image.php?pic=0&top=0606zoo>> [cit. 3016.05.20]

**AUTOMATIC GENERATION OF CITATIONS**

It is possible to use one of the programs for publication administration to store and organise documents (scientific articles) and to generate citations.

Such software is able to obtain the name of the document, authors, magazine, year, number of pages and other information from the electronic version of the article (in a PDF format), from which it then generates citations in the text, as well as bibliography. Students can use free software such as Mendeley <https://www.mendeley.com/> or Zotero <https://www.zotero.org/>.

Other software to use is EndNote (<http://endnote.com/>) with a free 30-day trial version.

## 5. Sources of literature

**Studying and borrowing from a library** (the SIC library, library of the Czech Academy of Sciences, National Technical Library, Czech National Library, Agricultural and Food Library, library of the Agency for Nature Conservation and Landscape Protection of the Czech Republic, and so on). You can get access to full-text databases of scientific magazines in the libraries for a small fee.

Databases accessible at CZU – SIC services <http://infozdroje.sic.czu.cz/cs/>

### **On-line databases (citations, abstracts, full-text)**

You can search for a corresponding citation, abstract or the whole text of a thesis using **key words** and their combinations or other criteria (such as the author's name, magazine name). Contacts of authors can also be convenient as you can send them an e-mail to request their articles.

**Tip:** It is useful to continuously save all interesting links or abstracts you find, or to create a simple table (database) of all citations, abstracts, articles, or to use one of the programs for publication administration (see above).

Example:

- ELSEVIER → <http://www.sciencedirect.com/science/journals>
- WEB OF SCIENCE → <https://apps.webofknowledge.com/>

## 6. Diploma thesis elaboration, supervisor's task

- the student follows the rules and schedule of the faculty where they are enrolled when elaborating their DT.
- the language of the DT (hereinafter the "thesis language") is determined by the accreditation of the student's study programme. The thesis language is specified in the assignment and is binding for the student. The dean of the faculty may permit an exception in justified cases.
- **the elaboration of the DT is pre-eminently the student's responsibility.** The supervisor helps the student resolve the basic methodological and conceptual questions and points out any potential formal deficiencies of the thesis. It is recommended that the supervisor together with the student determine a schedule of tasks and submission of the individual parts for control.
- when working on the DT, **the student shall** regularly consult their procedure and the individual outcomes with the DT supervisor or consultant. It is possible to use the UIS Consultation module in for consultations.

## 7. Submission of the diploma thesis

- the student submits the final DT in an **electronic and printed form**.
- **check the title of the thesis before submission!** The title of the thesis in Czech and English on the cover sheet must be identical to the title of the thesis in the Diploma Thesis Assignment. It is not possible to correct the title after the thesis has been submitted.
- before submitting the final DT, the student must submit the thesis to the supervisor for evaluation.
- no later than upon the last DT control, the thesis supervisor appoints **the opponent**.
- the student submits **2** bound hardback copies of the DT at the secretariat of the department where it was elaborated (one copy will be returned to the student after defence), the deadline is determined in the FES schedule.
- the electronic version of the DT must be identical to the printed version, the student confirms this conformity with a statement in the UIS when submitting the DT and by signing a statement in the printed copy of the DT.
- the student shall upload the final version of the DT to the UIS in PDF format. The size of the uploaded file is limited to 10 MB. The thesis title may be anything; it will be adjusted by the system after uploading.
- the thesis may only be submitted electronically after additional information has been added – key words (at least 3), abstract and the optional legal clause, all in Czech and English. The submission of the thesis takes place in two steps:
  - 1) by clicking the **Final Thesis Submission** button. You confirm that you have completed the additional information correctly and that the DT you have uploaded is identical to the printed version. It is not possible to manipulate the uploaded thesis after submission.
  - 2) confirmation by clicking the **Submit the Final Thesis** button.
- **the DT submission deadline** is strictly binding and is subject to the FES Schedule for the academic year in question.
- When the student submits the DT, there is a protective period of 24 hours during which it is possible to cancel the DT submission in UIS and upload a new file. However, it is only possible when the DT submission deadline determined by the faculty has not yet expired. After the lapse of the protective period, the student is not entitled to change the electronic version of the DT in the UIS in any way.

- When the DT has been submitted, it is sent for **plagiarism control** (the plagiarism control report is available no later than 5 days after submission).
  - the electronic version of the DT is sent for content concordance control after it has been uploaded into the UIS and the 24-hour protective period in which the student is entitled to make corrections in the uploaded file expires.
  - the control is done via the Theses.cz portal and its objective is to determine the concordance of the student's DT with texts of other authors. The control result is then made available in the UIS to the student, the DT supervisor, the head of the department and the relevant vice-dean of the faculty. The control result is also displayed in the overview of final theses in the UIS of the DT supervisor.
  - when the concordance of the thesis with texts of other authors equals or exceeds 15%, the DT supervisor must make a statement to the concordance in their opinion.
  - any DT that shows more than 10% concordance with texts of other authors is considered to be plagiarised when such texts are included in the thesis without proper citations.
  - any thesis that shows more than 20% concordance with texts of another author, even with proper citations, shall also be considered to be plagiarised as the texts are adapted as a compilation of coherent parts elaborated by another author.
  - Concordance of the DT with other previously published texts of the author (e.g. a bachelor thesis) is not considered plagiarism. The amount of such concordance (the number of concordances with other theses) must not exceed 40%.
  - A thesis that does not include proper citations for more than 10% of the literary sources listed at the end of the thesis in the list of information sources shall also be considered non-compliant.
  - the decision on whether or not the DT should be considered plagiarised is made by the committee at the Final State Examination (hereinafter "FSE"), before whom the student defends their thesis.
  - when the DT is deemed to be plagiarised according to the committee under the previous clause, the student is graded as "unsatisfactory" and the whole case is handed over to the corresponding disciplinary committee.
  - the disciplinary committee shall also receive cases of plagiarism where the student does not defend the thesis before the committee at the Final State Examination (e.g. due to the fact that the student cancels SFE registration in advance).

## 8. Registration for final state examination

The FSE application is available in the UIS → Student Portal → FSE Application.

There, you will see the list of dates, and you need to click on the arrow for an active date in the Register → column to display the list of state exam subjects, you can also register to participate in the graduation ceremony. Confirm the application by clicking the **Submit the state exam application** button. The deadline for FSE registration is determined in the FES schedule. When you submit the application, an e-mail with information on the graduation ceremony fee will be generated.

## 9. Final state examination and diploma thesis defence

- the thesis defence is a part of the FSE and takes place before the FSE committee according to the rules of the faculty.
- the student is informed of the assignment to the FSE committee via the UIS and also by an e-mail sent automatically via the UIS.
- **the date and place of the DT defence** and the final state examination is published in the UIS,
- the opponent's opinions on the DT prepared by the supervisor and the opponent are displayed in the UIS no later than 3 days prior to the defence,
- when the final grade of the thesis defence is "unsatisfactory", the thesis is saved in the UIS and the student must upload a new file with the thesis, including additional information, for the new defence. The same procedure also applies in such case the student is not permitted to defend the thesis due to the fact that the thesis has been graded as "unsatisfactory" both by the opponent and the supervisor.
- when the defence does not take place because the student has excused themselves from the FSE date (the grade of the thesis defence is "excused"), the thesis is saved in the UIS and the student defends it on another FSE date.
- **the DT defence** starts with the student briefly introducing their thesis for about 10 minutes – objectives, methodology, results, contributions and application of the thesis. The presentation should be prepared in PowerPoint or in a similar program. The supervisor then provides a statement, the opponent provides a statement, the supervisor and the opponent ask questions and there is a discussion in the committee.

## **10. Evaluation of the diploma thesis**

### **10.1 Classification grade – excellent**

The DT may include minor formal deficiencies, but it contains quality ideas and thoughts with basic reasoning already analysed in scientific literature (according to WOS) and other sources relevant to the topic.

The thesis is put into a broader theoretical context in an excellent way and has a high chance of being published in a quality scientific periodical in the form of one or more articles. The study is concluded with critical evaluations and suggestions for follow-up research. The student has clearly proven their ability to work independently and systematically and the thesis also indicates that the author has the ambition for research, or the thesis results lead to a patent or a methodological procedure and have a specific application in practice and state or private subjects are interested in them (ČUZK, AOPK, businesses, etc.).

### **10.2 Classification grade – very good**

There are individual comments to the accuracy of the solution or to the fulfilment of the objectives, or more serious comments to the formal or stylistic aspect. The comments are serious in a way that they cannot balance the otherwise high scientific or formal quality of the submitted thesis. However, the student has proven the ability to provide independent scientific work.

### **10.3 Classification grade – good**

There are serious comments considering the accuracy of the solution or the fulfilment of the objectives, or very serious comments considering the formal or stylistic aspect (both are assessed in relation and one can balance the other to a large extent). The student's ability to process a scientific topic has been proven, but the overall result has substantial deficiencies.

### **10.4 Classification grade – failed**

The thesis contains very substantial deficiencies. For example, the objectives have not been fulfilled, the solution does not comply with the assignment, the solution is low quality or completely incorrect, the instructions regarding the formal aspect of the thesis have been neglected, the language style does not correspond with a scientific text. The student has not manifested the ability to elaborate scientific work or the ability to describe it in a desirable way. Plagiarisms are also evaluated with this grade.

## **11. Diploma thesis – type of study**

**11.1 Binder and cover sheet (see Chapter 3.2.1)**

**11.2 Diploma thesis assignment (see Chapter 3.2.2)**

**11.3 DT author's statement (see Chapter 3.2.3)**

**11.4 Abstract, key words (see Chapter. 3.2.4)**

**11.5 DT Table of Contents (with references to page numbers) (see Chapter 3.2.5)**

**11.6 Introduction (see Chapter 3.2.6)**

**11.7 Objectives of the thesis (see Chapter 3.2.7)**

**11.8 Literary research**

Literary research should provide a coherent overview of the current knowledge in the discussed area, synthesise the knowledge of the discussed matter, compare various views of the discussed matter, assess and confront the approaches of the individual authors. The chapter is based on scientific literature.

**11.9 Characteristics of the study area**

In this chapter, the student introduces the selected study area, its properties (paedological, geological, fauna, flora, etc.). For better orientation, the student includes a map of the country with a clearly marked study area and a map of broader relations.

**11.10 Methodology**

In this chapter, it is very important to describe the methods of data collection and the methods of data analyses, to characterise the used groundwork (especially maps) so that the reader can assess both the seriousness of the groundwork material and the systematic and objective value of the stated conclusions. The student must prove that they understand the methodological procedures and know how to use them. Mere reference to already published methodology is not sufficient.

**11.11 Current state of play**

It is necessary to describe the current state of the issue from the student basis – the development of the state of affairs in the interest area, definition of basic areas to be solved, etc.

- 11.12 **Results (proposal) (see Chapter 3.2.9)**
- 11.13 **Discussion (see Chapter 3.2.10)**
- 11.14 **Conclusion and contribution of the thesis (see Chapter 3.2.11)**
- 11.15 **Bibliography and sources used (see Chapter 3.2.12)**
- 11.16 **Appendices (see Chapter 3.2.13)**

## **12. Diploma thesis type**

**– experimental or processing existing data**

- 12.1 **Binder and cover sheet (see Chapter 3.2.1)**
- 12.2 **Diploma thesis assignment (see Chapter 3.2.2)**
- 12.3 **DT author's statement (see Chapter 3.2.3)**
- 12.4 **Abstract, key words (see Chapter 3.2.4)**
- 12.5 **DT Table of Contents (with references to page numbers) (see Chapter 3.2.5)**
- 12.6 **Introduction (see Chapter 3.2.6)**
- 12.7 **Objectives of the thesis (see Chapter 3.2.7)**
- 12.8 **Methodology**

The student shall describe each methodological step in detail and explain why it was used. Methodology shall be described in such detail so that it would be possible to repeat it based on the description. The student shows that they understand the given issue. Mere references to published literature with the same methodology are definitely not sufficient. Methodology may also include a description of the interest area. Methodology should be divided internally, as needed, into parts dealing with data collection, including the description of the sample size (number of measurements, etc.), a trial plan and the method of (statistical) processing, including all the particulars (type and justification of the selected method to be used, data preparation, e.g., testing normalities and their transformations, statistical program including its version).

- 12.9 **Literary research**

Literary research should provide a coherent overview of the current knowledge in the discussed area, synthesise the knowledge of the discussed matter, compare various views of the discussed matter, assess and confront the approaches of the individual authors. The chapter is based on scientific literature.

### **12.10      *Characteristics of the study area***

In this chapter, the student introduces the selected study area, its properties (paedological, geological, fauna, flora, etc.). For better orientation, the student includes a map of the country with a clearly marked study area and a map of broader relations. Alternatively, this chapter can be included in the methodological part.

### **12.11      *Results of the thesis (see Chapter 3.2.9)***

### **12.12      *Discussion (see Chapter 3.2.10)***

### **12.13      *Conclusion and contribution of the thesis (see Chapter 3.2.11)***

### **12.14      *Bibliography and sources used (see Chapter 3.2.12)***

### **12.15      *Appendices (see Chapter 3.2.13)***

## **13.    Diploma thesis type**

**– development of author’s software and information systems, advanced data analyses**

The content of this type of DT is the development of specialised author’s software (or the creation of a specialised application using current software), a specialised information system or the use of GIS tools or mathematical and statistical methods for data analyses, dealing with the issue of a specific scientific field, methodological or experimental solution of a specific problem, the creation of a mathematical or data model for a specific process and so on. The thesis thematically concerns scientific disciplines or practical problems that are related to the environment. The actual requirements of the outcomes of the thesis are determined by the DT supervisor in the assignment (e.g. separate software, a module for existing software, analysis of an issue for the future creation of software, proposal of the structure and functionality of an information system with/without implementation, research, use and assessment of methods for data processing, etc.).

### **13.1      *Binder and cover sheet (see Chapter 3.2.1)***

### **13.2      *Diploma thesis assignment (see Chapter 3.2.2)***

**13.3**      *DT author's statement (see Chapter 3.2.3)*

**13.4**      *Abstract, key words (see Chapter 3.2.4)*

**13.5**      *DT Table of Contents (with references to page numbers) (see Chapter 3.2.5)*

**13.6**      *Introduction (see Chapter 3.2.6)*

**13.7**      *Objectives of the thesis (see Chapter 3.2.7)*

**13.8**      *Literary research*

Literary research for this type of DT can be minimal, or even omitted completely in exceptional cases (e.g. when the author's solution is completely unique and only follows facts that are generally known in the given area).

**13.9**      *Input analysis of the problem resolution*

It is possible to include a chapter with a similar title and meaning. Unlike literary research, it does not need to state a series of literary research, it may describe a process of handling information in the institution or field, it may be largely based on verbal information or studies of unpublished prints and specialised internet sources. It may otherwise state how the author reached the conclusion that it is not possible to create research fulfilling the purpose of the Literary research chapter.

**13.10**     *Characteristics of the study area*

This does not have to be included when the thesis does not apply to a specific area.

**13.11**     *Methodology*

The student shall describe each methodological step in detail and explain why it was used. Methodology shall be described in such detail so that it would be possible to repeat it based on the description. The student shows that they understand the given issue. Mere references to literature are definitely not sufficient. Methodology may also include a description of the interest area. Methodology should be divided internally, as needed, into parts dealing with data collection, including the description of the sample size (number of measurements, etc.) and a trial plan, then by the method of (statistical) processing, including all the particulars (type and justification of the selected method to be used, data preparation, e.g., testing normalities and their transformations, statistical program including its version).

Methodology can have a minimal scope if the procedure of the solution is clearly implied by the "Input analysis of the problem resolution" chapter.

### **13.12 Results of the thesis**

The results of the thesis in accordance with Chapter 3.2.9 present substantial results. The chapter does not have to be extensive when the results are mostly data, SW, IS, etc., in a digital form and it is not possible to include them in the text for technical or extent reasons. However, the chapter should state, even in the aforementioned case, what is the main result, and it should refer to the corresponding files of the data carrier and describe the main functionality and contributions of the solution. The result of the thesis may also be a script for the software and such.

### **13.13 Discussion**

The discussion does not necessarily have to compare the achieved results with literature if the specifics of the thesis do not allow for that. However, it should always contain the author's opinions on the proposed solution, the originally considered alternatives and so on, i.e., when it is not possible to compare with publications, the author should at least discuss it with themselves, with a prior unpublished solution, and describe the potential difficulties of the proposed solution. This approach and comparison with literature can be combined naturally in the discussion.

### **13.14 Conclusion and contribution of the thesis (see Chapter 3.2.11)**

### **13.15 Bibliography**

Bibliography and the used sources can state less references in total than stipulated in Chapter 3.2.12. Also, it is possible to increase the number of internet sources and to decrease the number of foreign sources (e.g. when the solution concerns a problem specific to the Czech Republic). Whether or not the bibliography is sufficient is assessed by the thesis supervisor and then by the FSE committee.

### **13.16 Appendices (see Chapter 3.2.13)**

**The structure may be supplemented with other chapters if the specifics of the thesis require that.**

**In spite of such possible modifications, it always must be obvious from the text what the author has adapted and what is their own solution. The justification of all changes is assessed by the supervisor and any changes need to be consulted with the supervisor.**

## **14. Diploma thesis – project type**

A project-type diploma thesis focuses on a design of a construction or a measure designed to resolve a specific problem. The scope of project documentation is stipulated in Decree No. 499/2009 Coll., on construction documentation. In the case of a diploma thesis, the scope is only a recommendation and

it may be modified according to the supervisor's recommendations, especially with regard to the level of the processed documentation. The results and discussion are not prepared for this type of thesis. The important chapters include the Accompanying Report, the Summarised Technical Report and the Building Documentation

**14.1**      ***Binder and cover sheet (see Chapter 3.2.1)***

**14.2**      ***Diploma thesis assignment (see Chapter 3.2.2)***

**14.3**      ***DT author's statement (see Chapter 3.2.3)***

**14.4**      ***Abstract, key words (see Chapter 3.2.4)***

**14.5**      ***DT Table of Contents (with references to page numbers) (see Chapter 3.2.5)***

**14.6**      ***Introduction (see Chapter 3.2.6)***

**14.7**      ***Objectives of the thesis (see Chapter 3.2.7)***

**14.8**      ***Methodology***

This chapter needs to include a description of the individual steps within the creation of the project. These primarily include the method of provision of the groundwork and the steps taken in the creation of the accompanying report, the technical report and the drawing documentation. Considering the character of the thesis, this chapter can have a minimal scope.

**14.9**      ***Literary research***

Literary research for this type of DT can be minimal. In this case, the research focuses on the possibilities of the technical design. Literary research is suitable when new and unusual methods are used in the area to be solved. Literary research may be completely omitted after a consultation with the DT supervisor.

**14.10**     ***Accompanying report***

The accompanying report contains identification data of the building, a list of input documents, data about the area and the building and the building division.

**14.11**     ***Summarised technical report***

This part of the diploma thesis contains the description of the area and the building, connection to technical infrastructure, traffic solution, vegetation and landscaping, the impact of the building on the environment, the protection of the residents and the principles of construction organisation.

**14.12**     ***Building documentation***

Building documentation is prepared for each individual building in an adequate scope. It is recommended to use one of the CAD systems for drawings.

#### **14.13     *Results of the thesis***

This chapter is not prepared in this type of thesis.

#### **14.14     *Discussion***

This chapter is not prepared in this type of thesis.

#### **14.15     *Conclusion and contribution of the thesis (see Chapter 3.2.11)***

#### **14.16     *Bibliography***

Bibliography and the used sources can state less references in total than stipulated in Chapter 3.2.12. With regard to the fact that when preparing a project, it almost always concerns an issue specific to the Czech Republic, it is possible to decrease the number of foreign sources, or to omit them completely. Whether or not the bibliography is sufficient is assessed by the thesis supervisor and then by the FSE committee.

#### **14.17     *Appendices***

The rules stated in Chapter 3.2.13 apply. With regard to the large scope, drawing documentation is submitted in a separate binder with the same description as the DT (see Chapter 3.2.1) and the additional title of "Drawing documentation".

**The structure of the project-type diploma thesis can be supplemented with other chapters with regard to the problem resolution (e.g. Hydro-technical calculations).**

## **15.     *Diploma thesis***

### **– *environmental expertise***

#### **15.1     *Binder and cover sheet (see Chapter 3.2.1)***

#### **15.2     *Diploma thesis assignment (see Chapter 3.2.2)***

#### **15.3     *DT author's statement (see Chapter 3.2.3)***

#### **15.4     *Abstract, key words (see Chapter 3.2.4)***

#### **15.5     *DT Table of Contents (with references to page numbers) (see Chapter 3.2.5)***

## **15.6      *Introduction (see Chapter 3.2.6)***

## **15.7      *Objectives of the thesis (see Chapter 3.2.7)***

## **15.8      *Literary research***

Literary research should provide a coherent overview of the current knowledge in the discussed area, synthesise the knowledge of the discussed matter, compare various views of the discussed matter, assess and confront the approaches of the individual authors. The chapter is based on scientific literature.

## **15.9      *Characteristics of the study area***

In this chapter, the student introduces the selected study area, its properties (paedological, geological, fauna, flora, etc.). For better orientation, the student includes a map of the country with a clearly marked study area and a map of broader relations. Alternatively, this chapter can be included in the methodological part.

## **15.10     *Methodology***

In this chapter, it is very important to describe the methods of data collection and the methods of data analyses, to characterise the used groundwork (especially maps) so that the reader can assess both the seriousness of the groundwork material and the systematic and objective value of the stated conclusions. The student must prove that they understand the methodological procedures and know how to use them. Mere reference to already published methodology is not sufficient.

## **15.11     *Current state of play***

It is necessary to describe the current state of the issue from the student basis – the development of the state of affairs in the interest area, definition of basic areas to be resolved, etc.

## **15.12     *Alternative solutions, results***

In this chapter, the possible alternatives of problem resolution or the evaluation of the assessment of the proposed intention shall be outlined.

## **15.13     *Discussion (see Chapter 3.2.10)***

## **15.14     *Conclusion and contribution of the thesis (see Chapter 3.2.11)***

## **15.15     *Bibliography and sources used (see Chapter 3.2.12)***

## **15.16     *Appendices (see Chapter 3.2.13)***

## 16. List of important websites

Faculty website .....	<a href="http://www.fzp.czu.cz/">http://www.fzp.czu.cz/</a>
University information system .....	<a href="http://is.czu.cz/">http://is.czu.cz/</a>
Student mail web interface .....	<a href="http://mail.studenti.czu.cz/">http://mail.studenti.czu.cz/</a>
Study and information centre .....	<a href="http://www.sic.czu.cz/">http://www.sic.czu.cz/</a>
Manuals for students .....	<a href="https://www.oikt.czu.cz/cs/r-12873-navody-a-dokumenty">https://www.oikt.czu.cz/cs/r-12873-navody-a-dokumenty</a>

