

Guidelines for the Preparation of a Master's Thesis

Institute of Transport Studies (IVe), BOKU
Vienna

Status: March 2025

Content

1.	Introduction	2
2.	Procedure.....	2
2.1.	Choice of topic.....	2
2.2.	Working steps	2
2.3.	Initial interview.....	3
2.4.	Registration	3
2.5.	Supervision.....	3
2.6.	Writing the Master's thesis	3
2.6.1.	Stylistic requirements.....	4
2.6.2.	Formal requirements.....	4
2.6.3.	Tables	6
2.6.4.	Figures	6
2.6.5.	Citations.....	7
2.6.6.	Data handling	8
2.7.	Master seminar	8
2.8.	Finalization	10
3.	Assessment criteria of the master's thesis	10
4.	Completion of studies	11
4.1.	Approval	11
4.2.	Defensio	12
4.3.	Final documents	12
4.4.	Academic ceremony	12
4.5.	Overview of deadlines	13
5.	Appendix	14
5.1.	Registration Form Master's thesis at the Institute of Transport Studies	14
5.2.	Cover page of IVE	15
5.3.	Poster-template	16

1. Introduction

We are pleased that you have decided to write your master's thesis at the Institute of Transport Studies (IVe). These guidelines are intended to help you get started with your thesis and to support you in organizing your workflow. Regulations and background information regarding writing a master's thesis can be found in the [constitution](#) of BOKU University¹ (III. Section: Study regulations; *Chapter E. WISSENSCHAFTLICHE ARBEITEN; § 86 Masterarbeiten und Diplomarbeiten*). In particular, we draw attention to *Chapter J. "VORTÄUSCHEN VON WISSENSCHAFTLICHEN LEISTUNGEN"* regarding scientific misconduct. The obligations to maintain good scientific practice also include the safeguarding and storage of data. According to § 95, "all raw data on which a master's thesis [...] is based must be kept (...) for at least five years". A written affidavit that good scientific practice has been followed is part of every master's thesis submission. For further information see also "Guidelines of the Austrian Agency for Scientific Integrity (OeAWI) on Good Scientific Practice" (GWP Guidelines of OeAWI)².

Please note the continuously updated information from the Centre for Teaching and the Admissions Office!

- ["Completion of studies"](#)³, BOKU-Start > Topics for Students > Final degree

2. Procedure

2.1. Choice of topic

Available master's thesis topics are advertised (amongst others) on the IVE homepage:

- ["Master's-thesis / information"](#)⁴, BOKU-Start > Department of Landscape, Water and Infrastructure > Institute of Transport Studies (IVe) > Studies: Information and Guidelines

Ongoing master's theses are listed here as well as a link to already completed master's theses of the institute. As a rule, the topics advertised are working titles. The exact contents and the procedure will be developed during the initial interview, the topic will be specified more precisely in the course of processing. It is certainly desirable to bring in your own suggestions for topics or to develop them in consultation with the (co-)supervisory team.

2.2. Working steps

The following steps give an overview of how to compose a master's thesis.

- (1) Initial consultation with supervisor/s on research questions and objectives;
- (2) Draft the structure of your thesis based on the agreed objectives; write a first draft of the table of contents at the beginning of your research, revise it as needed during completion.
- (3) Carry out a literature review, including current state of research on your research question and methodology.
- (4) Successively extend the structure of your thesis with keywords, bullet points, text passages, illustrations, tables, etc. while carrying out your research.
- (5) Complete the text after finishing measurements, surveys, modelling work, data analysis etc.

¹ <https://boku.ac.at/universitaetsleitung/senat/dokumente-und-rechtliches/satzung>

² https://oeawi.at/wp-content/uploads/2018/09/OeAWI_Brosch%C3%BCre_Web_2019.pdf

³ <https://boku.ac.at/en/studienservices/themen/infos-studienabschluss>

⁴ <https://boku.ac.at/en/lawi/verk/lehre-informationen-und-richtlinien/masterarbeiten-informationen>

- (6) Check whether the research questions have been answered, the objectives of the work have been fulfilled, formal criteria have been met, and a clear line of argument is recognisable.
- (7) Spell check your work: Activate the automatic spell checker, additionally proof-read yourself and by an "outside" person who has no direct insight into the topic (request feedback regarding comprehensibility of the contents and interconnections, recognizability of a clear line of argument and of the central message).
- (8) Complete a draft report for review by your (co-)supervisor; (calculate several weeks of review time; experience shows that it is not practical to hand in individual parts of the work).
- (9) Revise and produce the final version.

2.3. Initial consultation

In an initial consultation between the (co-)supervisor(s) and the student, the content and organizational set-up for the master's thesis is defined. This includes, for example:

- Specification of the task (problem definition, objectives, assessment criteria) as well as the structure, title (working title) and appropriate methods
- Explanation of the working steps
- Time frame
- Confidentiality and data security
- Clarification contact schedule with main supervisor
- Possible first literature selection

2.4. Registration

Following the initial consultation with the (co-)supervisor(s), the master's thesis must be registered by the student **with the Study Services** using the appropriate form. Support for this can be obtained from the secretariat of the Institute of Transport Studies. For the required [form](#)⁵:

- "Master's thesis ", BOKU-Start > Topics for Students > Final degree > Completion of Studies

the signatures of the supervising persons (main and co-supervisors) and the head of the institute must be obtained by the student.

The title of the master's thesis on the registration form is a working title and can be adapted to the research topic later. The type of work must be indicated (usually monograph). The completed form must be handed in at the Study Services, a copy has to be given to the IVE secretariat.

In addition to registering in the Admissions Office, the work must also be **registered directly at the Institute of Transport Studies** with a separate form including the BOKU e-mail address. **Please keep in mind that due to data security we only communicate via BOKU email addresses.** With the registration at the Institute an entry in the email distribution list for the Master's Seminar is connected. From this time onwards, you will receive all information about dates and presentations (Kapitel 2.7).

2.5. Supervision

The main supervision of a master's thesis must be assumed by a person holding a habilitation (usually a university professor, honorary professor, professor emeritus, associate professor, university lecturer with habilitation), unless an exception has been granted for other staff.

⁵ <https://boku.ac.at/en/studienservices/themen/infos-studienabschluss/thesen/masterarbeiten>

At present, Astrid Gühnemann, Juliane Stark, Yusak Susilo, Reinhard Hössinger, Michael Meschik and external lecturers (Bernhard Hofko, Ernst Pfleger, Friedrich Zibuschka) can be main supervisors for master's thesis for the Institute of Transport Studies. Depending on the subject area and the number of current supervisions, the work is co-supervised by a research associate of the institute. As a rule, the co-supervisor is the main contact person.

Appointments for supervision are made by personal arrangement with the co-supervisor. In these meetings the current progress of the work is discussed. Supervision is particularly useful when decisions have to be made about the direction of the work.

2.6. Writing the Master's thesis

The provisions of the [Copyright Act, Federal Law Gazette No. 111/1936](#)⁶, must be observed when working on the topic. When writing the master's thesis, it is important to ensure that a continuous citation form is used and that sources are correctly indicated (see section "Citation"). This can be decisive for the assessment of performance.

2.6.1. Stylistic requirements

- Use factual expressions, no flowery narrative style, no colloquial language.
- Do not use the first person singular ("I") "~~I have...~~" → "It was... "; "~~In my experience...~~" → "experience has shown...".
- Check each sentence for necessity.
- Keep sentences short, with clear statements - divide long sentences or structure them with dashes or mirror points, as well as important statements and enumerations.
- Create paragraphs with a thematic context, never format every sentence as a paragraph.
- Use filler words sparingly (e.g. natural, further, thus, while, but, also, still, only, thus, just, nevertheless).
- Define foreign words if necessary.
- A list of abbreviations is recommended for all abbreviations and acronyms used in the thesis, including common abbreviations (e.g., etc., yr.) or those of frequently occurring technical terms (e.g., AADT, BRT, EIA, HOV), never abbreviate "normal" words (e.g., ped., sec., resp.)
- Terms: use predefined terms (according to standardised documents, e.g. from Eurostat⁷, the UK Design Manual for Roads and Bridges⁸) as defined (e.g. footway not pavement) or define new ones (term definition) and use them consistently (e.g. do not use "measuring point", "point of survey", "counting point" etc. for an observed cross-section at the same time).
- Support statements and assertions with quotations from the literature, if possible.
- Always refer to contents and statements that do not exclusively originate from your own investigation with reference to the source.
- Explicitly state if and where you used AI to enhance your text. BOKU has published guidelines for the use of AI⁹.

⁶ <https://www.wipo.int/wipolex/en/legislation/details/21739>

⁷ <https://ec.europa.eu/eurostat/en/web/products-manuals-and-guidelines/-/ks-gq-19-004>

⁸ <https://www.standardsforhighways.co.uk/>

⁹ <https://boku.ac.at/lehrentwicklung/e-learning-und-didaktik/themen/didaktik/hochschullehre-und-kuenstliche-intelligenz-ki>

2.6.2. Formal requirements

Cover pages of the master's thesis

With the beginning of the winter semester 2021/22, it is mandatory to use a uniform cover page for master theses at BOKU¹⁰. Please note that the family name must be in BLOCK LETTERS.

After the cover page of the BOKU, the second page has to be the IVE cover page. This is available on the institute's homepage¹¹ (see also 5.2).

- BOKU-Start > Department of Landscape, Water and Infrastructure (LAWI) > Institute of Transport Studies (IVE) > Studies: Information and Guidelines > Master-thesis / information

The IVE cover page contains more information than the BOKU cover page, including the institute's internal master's thesis number (bottom left). This arranges the work completed in the respective year and is important for the signature of the institute library. It has to be requested from the supervisor or in the secretariat shortly before the work is completed.

Structure of the master's thesis

The structuring is adjusted in consultation with the supervisor.

For example:

(Abstract - will be written after completion of the thesis)

Foreword

Table of contents

1. Introduction: Tasks, problem definition, objectives/research questions, chosen approach, definitions of terms and list of abbreviations
2. Literature Review: presentation of results of national and international topic-related publications
3. Theoretical foundations, formulation of the hypothesis(s)
4. Methodical approach, considerations regarding methods
5. Data bases, data collection
6. Data analysis and presentation
7. Data assessment, evaluation
8. Discussion and interpretation of results
9. Integration of findings, central results, conclusions
10. Summary and outlook
11. List of references
12. Appendix (protocol samples, data tables, ...); in case of extensive contents a subdivision with structured headings is useful.

¹⁰ <https://boku.ac.at/en/studienservices/themen/infos-studienabschluss/theses/cover-pages/masters-thesis>

¹¹ https://boku.ac.at/fileadmin/data/H03000/H85000/H85600/MA/MA_Deckblatt_2025.docx

2.6.3. Layout

There are no specifications for font size, line spacing, margins (etc.). The layout should be agreed with the supervisory team. General recommendations are:

- Consistent adherence to paragraph styles for figures, tables, enumerations, etc. (define appropriate styles in a word processing program).
- Choose meaningful headers and footers (e.g. header with title and author, footer with institute and page number).
- Do not use oversized line and paragraph spacing or page margin widths.
- Use a maximum of 4 chapter levels:
 - 1. 1st heading level 1
 - 1.1 Level 2 heading
 - 1.2 etc.
 - 1.2.1 Level 3 heading
 - 1.2.2 etc.
 - 1.2.2.1 Level 4 heading
 - 1.2.2.2 etc.
- Note: a subchapter only gets its own number if there is at least a second subchapter in this hierarchy: 2.2.1 as a subchapter of 2.2 is only possible if at least 2.2.2 also exists.
- Use short and informative headings (if necessary, give more detailed information of the content in the following paragraph).
- Recommendation: Use of style templates and automatic creation of tables of contents, tables of figures, tables of tables, references.
- Chapters usually start with introductory sentences, never immediately with a figure or table. Do not use chapters that consist only of figures, tables, etc.
- **Refer to each figure and each table in the text.**
- Put units in tables and graphics in square brackets (e.g. [s], [km/h], [Kfz/24h]).
- Put enumerations with numbers in parentheses:
 - (1) motorised transport
 - (2) non-motorised traffic
 - (3) local public transport
- Use protected space between digit and unit (<shift>+<strg>+space bar), e.g. 30 km/h, to avoid a line break in-between.

Accessible formatting: For barrier-free formatting in accordance with Directive (EU) 2016/2106 and the Web Accessibility Act (WZG), you will find specifications in the sample document on the BOKU website.

Tables

- Table headings need to be above the table.
- Table numbering must use consecutive decimal numbering. Include the chapter number (2nd heading level) if the thesis contains many figures. Restart the numbering with 1 in each main chapter, e.g. Fig. 2.1.
- Table headings: analogous to figures.
- Define all columns and rows exactly, specify the units.
- Refer to each table in the text.

For example:

Table 4.8.: Total annual external costs for cruising and induced traffic per parking space

Congestion scenario	Cruising vkm			Induced vkm		
	Upper bound	Middle value	Lower bound	Upper bound	Middle value	Lower bound
Congested	€ 9 562.15	€ 2 023.57	€ 63.73	€ 2 451.04	€ 1 225.52	€ 490.21
Near capacity	€ 7 856.31	€ 1 662.57	€ 52.37	€ 2 013.78	€ 1 006.89	€ 402.76
Well below capacity	€ 536.68	€ 113.57	€ 3.58	€ 137.57	€ 68.78	€ 27.51

(Schuch, 2024, p. 27)

Figures

- Figures headings need to be below the figure. Use a clear definition of its content (figures should be comprehensible without text). It is good practice to include a heading in the graphs to make them comprehensible on their own.
- Figure numbering must use consecutive decimal numbering. Include the chapter number (2nd heading level) if the thesis contains many figures. Restart the numbering with 1 in each main chapter, e.g. Fig. 2.1.
- If figures/tables are numbered automatically in the word processor, the cross-references to figures/tables in the text can also be automated. Double check these before submission to avoid broken cross-references.
- In the case of diagrams: exact labelling of the axes, indicating the units/dimensions.
- Refer to each illustration in the text, e.g. "as shown in Fig. 4.6-5 ..." or "The growth of motorization is 4% per year (Fig. 4.6-5)".
- Put numbers on graphics (Fig. 2.6-1).
- Use copyable grids and ensure black and white comprehensibility.
- Reference to tables in the text: analogous to figures.

For example:

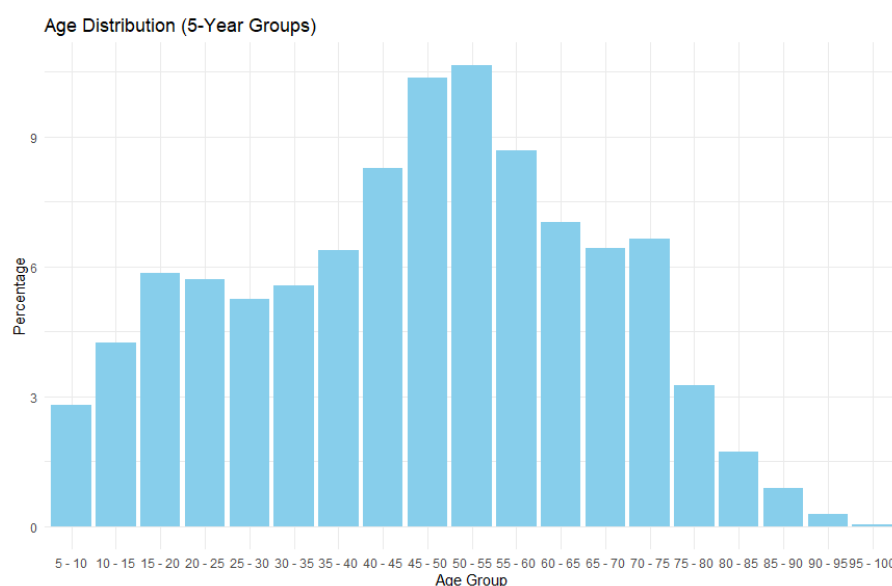


Figure 2.1: Age Distribution in Österreich Unterwegs (n=38220) (Böhnke, 2025)

2.6.4. Citations and bibliography

References in the text consist of the names of the authors and the year of publication. The year is supplemented by a letter if other publications are cited by the same authors from the same year. For the second reference, a list of more than two author names may be replaced by a reference to the first author and the abbreviation et al (et alii; Latin "and others").

Examples:

„... like Müller und Meier (1990, 1992a) in contrast to Schmidt (1988) or Schmidt, Krause und Krause (1989) suggest ...“

„... Schmidt et al. (1989) come to different conclusions than the literature so far (Schmidt, 1988; Meier, 1985 oder Müller, 1990) ...“

Format the bibliography single-line. The bibliographical references are to be sorted alphabetically according to the surname and first name of the first author, then according to the names of the other authors and then according to the year of publication. If two or more articles by the same author or group of authors from the same year are cited, the year of publication must be supplemented by letters: 1994a, 1994b, ...

Nationally and internationally, there is a multitude of formally different types of literature references. Which one is chosen for the work should be discussed with the supervisor. The citation style must then be used consistently (no "mixing" of e.g. names in block letters or not, with or without comma after the name, with or without colon after the year etc.).

Recommendation: There is a number of programs, such as Endnote, Zotero, with which literature can be systematically managed and cited.

2.6.5. Data handling

The legal basis for data protection in Austria is the Data Protection Act 2000 (DSG 2000). Compliance is monitored by the data protection authority.

As a student, you are obliged to comply with the data protection regulations. In principle, all data that is processed in the course of a master's thesis must be treated confidentially and may not be passed on. Particularly personal data are to be processed exclusively in anonymous form and may not allow any conclusions to be drawn about persons and their personal situations, inclinations, needs, etc. Results from surveys etc. and evaluations based on them should therefore preferably be presented in aggregated form, i.e. the results of groups of test persons should be presented, not of individuals.

2.7. Master seminar

Participation in the master seminar (LV no. 850.301) on at least four dates including two presentations is obligatory from the time of registration and will be verified with signature lists. Please also note the information about the course in BOKUonline.

The dates for the 2 presentations are fixed after consultation with the supervisor; usually at the beginning (overview of the topic, method, work plan etc.) and at the end of the master's thesis (results etc.). A presentation time of ten minutes is set aside for the presentations and another ten minutes for the subsequent discussion. The invitation to participate will be sent by e-mail by the secretariat.

The objectives of the seminar include:

- Guidance for independent scientific work;
- acquisition and consolidation of the theoretical and methodological knowledge required for scientific work;
- practice of presentation techniques;
- professional discussion and treatment of methodological questions;
- critical reflection of the work;
- preparation for defensio.

Expected content of 1st and 2nd presentation:

- **1st presentation**

- Should take place after approximately ¼ to 1/3 of the master's thesis. Expected status:
 - Research questions roughly defined
 - Proposals for methods / data collection developed
 - First literature research on background and methods carried out
- Presentation and understanding of the research objective and approach in the foreground.
- Objectives:
 - Practice presentation skills
 - Discussing the research objective, workflow, and methods envisioned
 - Obtain feedback from instructors and other students
- If applicable, initial results or intermediate steps (e.g., a questionnaire, experimental design, initial data analysis of secondary data) can be presented
- Presentation can end with a discussion question or a concrete question for feedback

- **2nd presentation**

- Should take place at the end of the master's thesis. There should be a substantial set of results that provide a meaningful impression of the final result. However, not all results need to be available yet. The core of the methods should have already been applied.
- Focus on results and clean presentation of the method(s).
- Critical reflection on the method/results and interpretation of the results.
- Objectives:
 - Practice of a scientific presentation and demonstration of expertise
 - Preparation for Defensio
 - Presentation technique (with less weight)
 - Obtain feedback from instructor and other students (if possible) before finalizing the paper
- Presentation can end with a discussion question or a concrete question for feedback

Evaluation of the Master's Seminar:

Grades: - in quarter steps per seminar

- in the case of in-between grades, the supervisory team determines the final grade Range of grades:

Very good	An excellent presentation that (not only) has no deficiency in the above criteria, but also gives an excellent impression of the work for students and supervisors.
Good	A presentation that is easily recognizable and presentable as a „good performance“ in terms of content and rhetorical quality and form - even to the outside world.
Satisfactory	A presentation that achieves the desired goal „to a satisfactory degree“; notable shortcomings are evident here and there.
Sufficient	A presentation that „still sufficiently satisfies“ the set requirements, but in several points deviates from the expectations placed in it.
Not sufficient	The presentation fails to meet several of the requirements or is extremely deficient and, in the overall judgment of the evaluators, will not allow the student to meet requirements for a Master's degree (e.g. Defensio afterwards).

Criteria and expectations for a very good rating:

Content of the presentation	
1st presentation	<ul style="list-style-type: none"> • Objectives and research question of the work clearly defined, usually derived from the literature • Appropriate suggestions for methodological procedure presented • Intermediate results clearly comprehensible, if presented • Clear conclusions (or questions) for further work available
2nd presentation	<ul style="list-style-type: none"> • Clear objectives and research question of the work and results related to them presented • Key findings of the work presented concisely and precisely • Critical reflection on the results and/or methods presented available • Clearly comprehensible conclusions for further work or research outlook given
Technical competence in answering the questions in the subsequent discussion	
1st presentation	<ul style="list-style-type: none"> • Demonstrates good basic knowledge of subject area and methods • Independent thought and critical awareness recognizable

2nd presentation	<ul style="list-style-type: none">• Demonstrates very good literary knowledge of the subject area including related disciplines and can clearly justify choice of method• Any weaknesses / limitations of the method(s) are clearly demonstrated• Independent thought and critical awareness are clearly evident
------------------	--

Rhetoric	<ul style="list-style-type: none"> • Clear structure of the presentation, logically structured • Appropriate speed of speech and duration of the slides • Presentation is stimulating, appropriate to the audience, understandable and factual • Acoustically clearly audible
Time management	<ul style="list-style-type: none"> • Clear adherence to available time (without rushing at the end) • Available time was used very well (no lengths, not excessive time at the end)
Slides layout	<ul style="list-style-type: none"> • Practically no typos, graphics with correct labels • Everything readable, slides look tidy/not cluttered • Slides numbered throughout

The prerequisites for a positive conclusion of the seminar include the holding of two presentations and participation in four seminar sessions as well as the creation of a poster (format A2) after completion of the thesis (see 5.3). The design of the poster will be arranged with the supervisor. A poster template can be found on the IVE homepage:

- ["Download"](#)¹, BOKU-Start > Department für Raum, Landschaft und Infrastruktur (RALI) > Institut für Verkehrswesen (IVE) > Lehre: Informationen und Richtlinien > Masterarbeiten / Informationen

2.8. Finalization

After the final check of the written work by the supervisor, final hard copies of the work must be produced. A total of two formal submission copies must be made. One of them has to be handed in at the Department of Studies (for the University Library); there are no formal requirements - except for the firm binding and the name of the student on the spine of the book. The second copy will be sent to the institute (institute library) and should have a black cover and an inscribed book spine (below: first name SURNAME; above: master's thesis number). Further copies (e.g. for the supervisor) have to be made in agreement with the supervisor. You will receive the master's thesis number (MA number) for the cover and spine from your supervisor.

After submitting the copies to the IVE, you will receive the grade of your work in the form of an evaluation sheet. Please inform all supervising persons in time about your planned submission. Please consult your supervisor about the extent to which the master's thesis or the data and literature has to be submitted digitally.

¹ https://boku.ac.at/fileadmin/data/H03000/H85000/H85600/DA/Poster_Vorlage_Okt_2022.pptx

3. Assessment criteria of the master's thesis

The assessment of the master's thesis by the evaluation sheet is based on the following central criteria:

- Problem definition (relevant/central literature cited, guidance to the problem)
- Question(s) (comprehensible derivation from problem definition)
- Research design (theoretical framework concept, adequate research methods)
- Methodical procedure (scientific level, traceability)
- Research results (formal presentation meets scientific criteria, adequate description of content)
- Analysis/interpretation/discussion/conclusion(s) (comprehensibly derived from results, answering the question(s), integration into current state of knowledge, applicability/technical relevance)
- Bibliography (completeness with regard to relevant literature, formal correctness)
- Quality Formulations
- Outline of the work

The Assessment form can be found here¹:

- Assessment of the thesis by the supervisor: "Assessment form for Master's thesis", Assessment of the thesis and presentation: "Assessment form for Defensio Master's thesis", BOKU-Start > Topics for Students > Final degree > Graduation from BOKU Master's degree programmes

4. Completion of studies

4.1. Approval

The current "Guidelines for the Defensio of a Master Thesis at the University of Natural Resources and Life Sciences, Vienna" must be observed. The German version is binding.

Excerpt from "Studienabschluss von BOKU-Masterstudien" of the BOKU homepage with the form of the Master's examination/defense relevant for the IVe: "When all study achievements have been completed, the application for the Master's examination or defensio can be made after examination by the Admissions Office (preliminary check) (...)". It is recommended to initiate the examination by the Admissions Office one semester prior to the registration for the Master's examination/defense or before the completion of the Master's program so that any deficiencies can be corrected in time. Admission to the Master examination/Defensio, with which the study program is also completed, or the completion of Master studies without a Master examination/Defensio by a commission, requires that all courses prescribed in the curriculum have been completed positively (all examinations in BOKUonline validated) and the Master's thesis has been assessed positively. If these admission requirements are fulfilled, the actual registration can take place. For this purpose, all necessary documents or forms have to be submitted, which can be found on the homepage of the Admissions Office:

- [Graduation from BOKU Master's degree programmes, BOKU start > Topics for Students > Final degree](#)

All signatures and the release for the [abstract](#)² by the supervisor must be obtained in time: these must be in the original. Scans or signatures by representatives are not permitted. Please note that

the abstract is limited to 2000 characters (including spaces, punctuation marks, etc.).

After completion of the thesis (before graduation):

1. student enters the abstract data.
2. supervisor checks the data and releases the data.
3. student hands in the abstract printout to the academic department.

After graduation:

4. Admissions Office, the Research Service and the University Library process and complete the data and release the data. This can take 1 to 2 months.
5. Final thesis is found on the Internet.

4.2. Defensio

The student is responsible for the composition of the Defensiosenat and the determination of the defensio date (date, time, place/room). A total of three persons with a habilitation are necessary for the defensio (first examiner, second examiner, chair). The student coordinates in advance a defensive meeting with two university teachers with high teaching authority (first and second examiner). The supervisor of the master's thesis is usually (but not necessarily) part of the commission, but cannot assume the chairmanship. First and second examiners may be from the same department and institute. The chair must be from a different department than the supervisor and is determined by the Admissions Office. The student has the opportunity to propose a chair.

Defensions can take place throughout the year. Excepted from this is the exam-free period. Date, time and place of the defensions are published on the homepage of the Admissions Office (under Examination Dates). The submission deadline for the application for the Defensio (which is also the submission of all documents) is exactly 3 weeks (according to information: not negotiable).

¹ <https://boku.ac.at/en/studienservices/themen/infos-studienabschluss/studienabschluss-von-masterstudien/studienabschluss-von-boku-masterstudien>

² <https://boku.ac.at/en/boku-it/themen/teach-learn/studium-meldung-weitermeldung-abschluss/abschlussarbeiten-abstracts-erfassung?selectedTypes=group&cHash=2e4b482ebc6e2ab296e2fa4a16871688>

4.3. Final documents

The final documents (award notice, diploma and Diploma Supplement) are issued within the statutory period of four weeks. As soon as they are ready for collection at the Admissions Office, you will be notified by email. The following documents must be presented when taking over the final documents:

- BOKUcard or an official photo identification,
- Printed confirmation of the entry of the data entry form on study-related stays abroad
- If the documents cannot be collected in person, a notarized power of attorney and official photo identification must be presented

The final documents (award notice, diploma and Diploma Supplement) are issued within the statutory period of four weeks. As soon as they are ready for collection at the Admissions Office, you will be notified by email. The following documents must be presented when taking over the final documents:

- BOKUcard or an official photo identification,
- Printed confirmation of the entry of the data entry form on study-related stays abroad
- If the documents cannot be collected in person, a notarized power of attorney and official photo identification must be presented.

4.4. Academic ceremony

In order to register for the academic ceremony (sponsion), the Master's examination/defense must be passed at least three weeks before the first planned sponsion date. Students of Master's programs without a Master's examination by a board of examiners must have submitted all necessary documents for the degree at this time.

4.5. Overview of deadlines

	Deadline	noteworthy
Pre-control of completion of studies (by the academic department)	one semester before registering for the Master's examination/defensive course or before completing the Master's programme	necessary documents, page info degree
Master examination: Registration	at the latest three weeks before the examination date (period begins on the next working day)	Prerequisites for registration, see page Degree Info
Defensio: Registration	at the latest three weeks before the defensive date (period begins on the day of registration)	valid guidelines for the defensio of a MA at the University of Natural Resources and Life Sciences, Vienna Form "Registration for Defensio", see page information about graduation
Final documents	takes place within the statutory period of four weeks	Presentation of the documents on collection (see final documents)
Academic celebration: Registration	Master's examination/Defensio must be successfully completed at ≥ 3 weeks before the 1st planned sponsion date	Deadlines, see page Graduation information/"Sponsions and doctorates"

5. Appendix

5.1. Registration form for master's thesis at the Institute of Transport Studies

Art der Arbeit

- Masterarbeit ☐
Dissertation ☐

Eingangsvermerk

Thema (Arbeitstitel)

Betreuung

- Gühnemann ☐
Pfleger^{e)} ☐
Stark ☐
Susilo ☐
Zibuschka^{e)} ☐
Hössinger ☐
Meschik ☐
Hofko^{e)} ☐

Mitbetreuung

- Berger ☐
Zierl^{e)} ☐
Klementsitz ☐
Meschik ☐
Pfaffenbichler ☐
Roeder ☐

Andere Person:

Anmerkung:

^{e)} extern

Angaben zur Person

Matr.-Nr.:	
Kennzahl:	
Nachname:	
Vorname:	
Geb.Datum:	
Tel.:	
E-Mail:	
Straße:	
PLZ/Ort:	

- ☐ Ich habe die Satzung der Universität der Bodenkultur Wien in Bezug auf wissenschaftliches Arbeiten, insbesondere Punkt „J. VORTÄUSCHEN VON WISSENSCHAFTLICHEN LEISTUNGEN“ (Satzung Abschnitt III/ Punkt J; siehe Anhang), gelesen und akzeptiere diese.
- ☐ Ich bin damit einverstanden, dass Mitarbeiter:innen des Instituts für Verkehrswesen meine E-Mail-Adresse für Einladungen zur Teilnahme an Befragungen oder Forschungsprojekten nutzen. (jederzeit widerrufbar)

5.2. Cover page of IVE (after official BOKU title page)



Titel, Zeile 1
Titel, Zeile 2
Titel, Zeile 3

**M
A
S
T
E
R
A
R
B
E**

Verfasser:

Vorname Name

allfällige akademische Titel oder Standesbezeichnung in Abkürzung (nicht: cand. Ing.)

Masterarbeit für das Fachgebiet

VERKEHRSWESEN

Betreuung:

Vorname Name

o. Univ.Prof. Dipl.-Ing. Dr. techn. oder sonstige

Vorname Name

Univ.Ass. Dipl.-Ing. Dr. techn. oder sonstige

MA-Nr.

Poster-template

https://boku.ac.at/lawi/verk



The social costs of on-street parking spaces: Evaluating stationary traffic in Vienna

Author: Helena Schuch, BSc
(helena.schuch@gmx.at)

Supervisors: Univ.-Prof.ⁱⁿ Dr. Astrid Gühnemann
Ass.-Prof. Dipl.-Ing. Dr. Michael Meschik

Master thesis transport studies (Nr. 07/2024)

BACKGROUND and MOTIVATION

Social cost analysis is an instrument in transport economics used to evaluate a wide range of policy measures. While social cost estimates for various transport modes and traffic infrastructure components exist, the social costs of the on-street parking supply pose a research gap. The composition of the cost categories involved, and their monetary value can help to evaluate parking provisioning, a contested policy issue, from the lens of transport economics.

RESEARCH QUESTIONS

The following research questions were answered:

- Which cost categories affect the total social costs of the on-street parking supply?
- How could these cost categories be monetised?
- What are the total social costs of an individual on-street parking space?
- What are the total social costs accruing from the on-street parking supply of the case example, the city of Vienna?

METHODS

- Literature research to identify:
 - Cost categories incurring from on-street parking
 - Data for each cost factor regarding quantity and value structure (see figure 1)
- Enquiry into data on Vienna's on-street parking supply
- Calculation of each cost category for an individual parking space
- Calculation of total social costs per parking space and for Vienna's parking supply

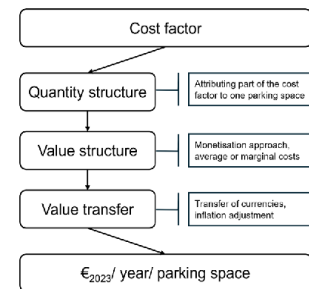


Figure 1: Steps for quantifying the monetary value of each cost factor

RESULTS

- Cost categories affecting the total social costs of on-street parking provision:

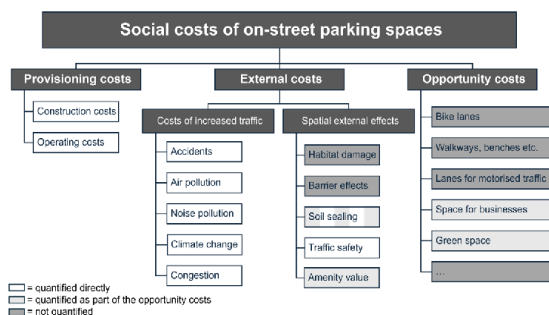


Figure 2: Cost categories for public on-street parking spaces

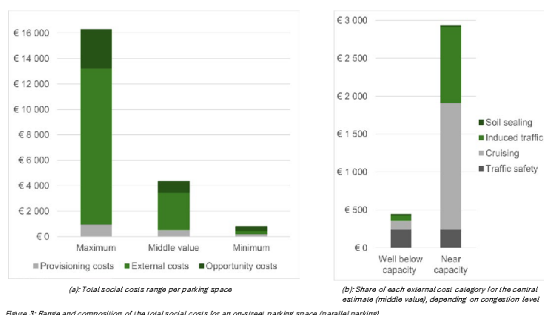
→ Reasons for categories left unquantified:

- Habitat damage and barrier effects: negligible effect of one parking space
- Alternative traffic infrastructures: not quantifiable directly

- Example calculation: Annual soil sealing costs based on runoff water fees

Quantity structure	Value structure	€/ parking space
Parallel parking: 11 m ²	Based on the municipal rainwater fee in German cities:	13.62
Angular parking: 12 m ²		14.85
Perpendicular parking: 12.5 m ²	1.24 €/m ²	15.47

- Total social costs range for an on-street parking space:



(a) Total social costs range per parking space

(b) Share of each external cost category for the central estimate (middle value), depending on congestion level

→ Results greatly influenced by: i) congestion levels, ii) assumptions about the increase in traffic related to the on-street parking supply (induced traffic and cruising) iii) opportunity cost scenario

→ Considerable level of uncertainty due to lack of preceding research

- On-street parking supply in Vienna according to the MA 46:

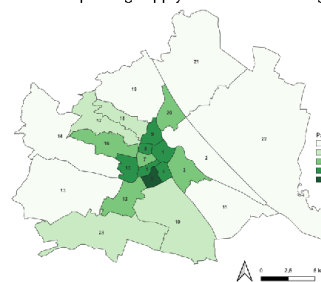


Figure 4: Distribution of parking spaces per hectare in Vienna's 23 districts

- Currently about 440,000 parking spaces occupying approximately 480 hectares of Vienna's surface
- Between 24 (Neubau) and 109 (Innere Stadt) parking spaces per 100 private households

- Total social costs of on-street parking provision in Vienna:

Upper bound	Middle value	Lower bound
€ 1 047 053 827	€ 645 498 044	€ 427 558 825

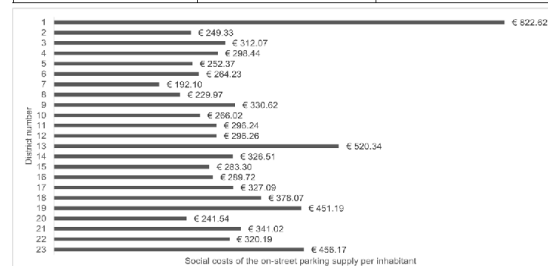


Figure 5: Total social costs (middle estimate) per inhabitant

- On-street parking is abundant in Vienna
- Significant costs incurred on society
- Costs could not be met by current parking fee revenue

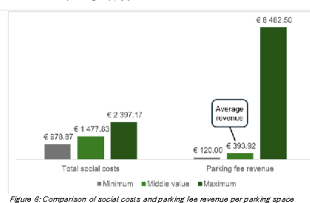


Figure 6: Comparison of social costs and parking fee revenue per parking space

OUTLOOK and RECOMMENDATIONS

- To compare the costs and benefits of on-street parking provision, a detailed social cost estimate including a wide range of cost categories is needed
- To reduce uncertainties, more research is needed regarding:
 - Each cost category's social and environmental impacts
 - Appropriate monetisation approaches
- To inform parking management, additional information is required on:
 - The monetary benefits of on-street parking provision
 - Interdependencies with off-street parking and travel behaviour