

Education guide

Master Architecture, Building and Planning

Academic year
2011-2012



Technische Universiteit
Eindhoven
University of Technology

For a more detailed description of the subjects referred to in the tables etc. please look at the website: <http://onderwijs.tue.nl>, under 'subject information'

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1. Program of the ABP Masters Course

1.1 General

In accordance with article 1.5 of the Education and Examination Regulations, the course, the examinations, and the Final Examination are held in English.

For detailed information on the Masters specialisations and the Masters project work, see the Department internet site where much of this information is to be found: <http://w3.bwk.tue.nl/nl/organization/>

1.2 Key characteristics of the course

Education in the department of the Build Environment is research-driven and design-oriented. Research and design activities are interwoven in the program of education. The student is taught to approach relevant architectural problems in a constant interaction between analysis and synthesis. This means that the education is not, a priori, aimed at training the student for a specific profession. In the context of a specific provision of architectural disciplines, the student is taught to be able to take a radical approach to problems and innovations (research) and to be able to develop integral solutions (design).

The ABP courses at the TU/e are characterised by their interdisciplinary nature. In the various specializations of the Masters courses, the student is given the opportunity to follow subjects in other Groups within and outside the Department. In this way, the student is able to learn from within his own discipline to understand the problems of other disciplines.

During the study, each student is given the responsibility for his own learning process. For this purpose, the use of a 'student portfolio' is introduced. In the Masters course of the Department of the Build Environment, every student is allocated a mentor for the development of his portfolio. Each Masters specialisation offers a certain amount of room for elective course elements. This space can be used for taking subject courses, and can also be used, for example, for setting up a work placement project.

1.3 Design oriented and research-driven

In the project driven education in the Masters courses, the emphasis is placed on developing a design orientation in the student. In this context, Designing is an activity aimed at generating solutions to problems of a complex nature. In this learning process, analysis and synthesis are indivisibly linked. Analysis is associated with scientific method and techniques; synthesis is based on the scientific approach to design processes and modelling in general.

Inherent in the research-driven education that is fundamental to the 'Master of Science' degree is that:

- students gather knowledge independently, and develop insight and skills in order to apply this knowledge in the project education of the Masters phase
- the final project has a direct relationship with research projects and research activities.

Students who want to make an informed choice for their final project work are therefore well advised to acquaint themselves with the research activities of the various groups in good time.

1.4 Elective course elements in the Masters program

The course elements of the Masters program are divided into compulsory and elective elements. The elective elements are available only in the Masters level part of the TU/e curriculum. Furthermore, the elective elements must be selected with the approval of the Examination Committee. The elective elements form part of the student portfolio.

1.5 Practical experience and studying abroad

It is desirable that, during the Masters courses, students have the opportunity to gain workplace experience, and that this should form part of the study. The student has various possibilities for achieving this.

- Masters project in a working environment
- Project on-the-job

Masters Project in a Working Environment

A student can undertake one Masters Project in a Working Environment. This means that, after consultation with and approval by a lecturer authorised to conduct the final examination of the Masters project, he carries out an assignment (that in terms of learning objectives, content, final result, and extent, is equivalent to the relevant Masters project) at a body outside the TU/e. This assignment is assessed by the lecturer of the Masters project. If the result is satisfactory, the assignment is recognized as a Masters project.

Project on-the-job

Alternatively, a student can obtain his elective ECTS credits by carrying out a project in a working environment. This means that he carries out a project at a body outside the TU/e. For this purpose the elective course element Project on-the-job has been developed. The course element Project on-the-job is a course element that is different for every student, depending on the competences that the student wants to develop in the flexible part of the curriculum. The portfolio tutor is the lecturer authorised to conduct the final examination for the subject. He must approve the preferred project on-the-job and also assess it (possibly together with a second lecturer). A student who wishes to make use of a Project on-the-job course element, informs his portfolio tutor about this. The latter provides him with the Project on-the-job Regulations. The preferred Project on-the-job must be carried out in accordance with these regulations.

Studying abroad

Students with the Dutch nationality may choose to study a semester at a foreign university as part of their master study program. It is also possible for them to do a project abroad (master project, internship or final thesis project). To avoid delays in your master study program it is advisable that you get acquainted with the (im)possibilities of a foreign study period at a very early stage.

For more information please contact the departmental exchange coordinator:

Henny Houben, VRT 2.12, tel.nr. 0031 40 247 3471, email: h.houben@tue.nl

Website: <http://www.tue.nl/universiteit/faculteiten/faculteit-bwk/studeren/masteropleidingen-ontwerpersopleidingen-en-promoveren/architecture-building-and-planning/studeren-in-het-buitenland/>

1.6 Final Attainment Level of the Master of Science

To achieve the final attainment level the master of science in Architecture, Building and Planning:

- is University educated within the domain of 'science, engineering & technology',
- is competent in the relevant domain-specific discipline(s), that is, possesses sufficient knowledge and skills and the right attitude for embarking on a career at academic level in the (international) architectural profession or for entering into a(n international) research or design school,
- can undertake independent research and design,
- is able, when necessary, to involve other disciplines in his own research, and has the appropriate attitude for this,
- has a scientific approach to problems and ideas of a complex nature,
- has intellectual skills and is capable of critical thought, logical reasoning, and judgement,
- can communicate at international level about the results of his own learning, thinking, and decisions,
- is aware of the temporal and social context of science and technology (understanding and analysis) and takes these fully into account in his scientific work,
- has, in addition to a recognisable domain-specific profile, a sufficiently broad basis to be able to undertake interdisciplinary and multidisciplinary work. Here, multidisciplinary means: involving other relevant disciplines that are necessary for solving the (design or research) problem,
- actively seeks new application possibilities, and in the process takes account of the social context.

1.7 Free or flexible degree Masters program

It is also possible for the student to plan a two year 'personal' graduation program (the 'free' or 'flexible degree' Masters program) in consultation with the Examination Committee and the graduation supervisor. A free programme must ultimately be approved by the Examination Committee. See also article 4.3 section 1 and annex 5 of the Education and Examination Regulations for the ABP master courses and article 2.1 of the Examination Rules and Procedures 2010-2011.

The request can be dealt with only if a form, specially designed for this purpose, is obtained from the Educational Office and is returned, completed in full, and signed, before the closing date specified in the Education and Examination Regulations (see article 4.3, section 1 of the Education and Examination Regulations for Masters courses, ABP);

In all cases, the preferred graduation Professor or associate Professor of the Department of the Build Environment of the TU/e must support the request. There must also be substantive support from the other University; The individual program must contain elements of a University Masters course external to the Department of the Build Environment of the TU/e, that represent a minimum of 20 and a maximum of 40 ECTS credits; Graduation takes place under the full responsibility of the Department of the Build Environment of the TU/e, which also issues the diploma. This means that the student must conform to the graduation regulations of the TU/e Department of the Build Environment.

1.8 The graduation process for combined ABP Masters specializations

(See also: annex 6 of the Education and Examination Regulations for the ABP master courses 2010-2011)

These regulations on combined study / graduation relate to all possible combinations of Masters specializations in the Architecture, Building, and Planning courses. The basis of these regulations is that a student registers for a main specialization but also takes all compulsory elements of a second specialization (where, in principle, the room for elective course elements is used to complete part of the obligations of the other specialization). In this case it is unavoidable that extra ECTS credits must be earned for the combined study.

Extra ECTS credits

Students undertaking a combined study must earn a minimum of 16 ECTS credits more than the 120 ECTS credits required for the normal Masters specializations (so that the combined program comes out at a minimum of 136 ECTS credits).

Subjects

The student must satisfy all subject requirements of both specializations.

Projects

Masters projects in the first academic year:

Both Masters projects are organized in such a way that components of both specializations are clearly included. Assessments are carried out by lecturers from both specializations, and both specializations have equal weight. If it is not possible to arrange for combined projects (for example, for organizational reasons), the student can also choose his Masters Project 1 and Masters Project 2 from the normal selection of the main specialization, and then follow the procedure described below before starting projects in the second year.

Masters projects in the second academic year:

The second year Masters project and the Graduation project are always combined projects with supervision from both specializations (and with a Graduation Supervision Committee that meets the requirements of both specializations and in which both specializations have equal weight).

Students who have not undertaken combined Masters projects in the first year must agree the combined study with the Graduation Supervision Committee before starting. By evaluating the results of both first year Masters projects, the Committee assesses whether there is a realistic chance of the combined study being completed successfully. If, on the basis of the project results shown, the Graduation Supervision Committee is not convinced that a combined graduation project is likely to be successful, in consultation with the student this committee can:

- base their decision on an extra project with recognisable components from both specializations. As a guideline, this extra project will have a value of 8 ECTS credits, and will be supervised by lecturers of both specializations and can count towards the elective ECTS credits.
- alternatively decide that the student can begin with the graduation project, and that approval of a combined study be postponed to the initial colloquium. After this initial colloquium the committee will take a decision on the basis of the demonstrated approach and results achieved up until the initial colloquium.

Detailed programs

For a number of combinations of Masters specializations, program outlines are available that have been worked out on the basis of these regulations and can be requested from the secretariats of the units, the education coordinators of the Masters specializations, and the student counselor.

1.9 The ABP Masters Portfolio

Introduction

In the Architecture Building and Planning Masters courses an allowance of three ECTS credits is included for portfolio education. The subject is called 7PF03 Masters Portfolio. The effort that the student must expend for this is spread over the first three semesters. The ECTS credits are actually awarded in the third semester. The graduation professor issues the ECTS credits after consultation with the portfolio tutor.

Themes

The portfolio education in the Masters course has two themes: Competence development and Presentation. In the first year a start is made with competence development. At the end of the first year or the beginning of the second, the student presents himself to the group where he wishes to graduate. The student's competence development continues through the second year.

Competence development for the 2011-2012 intake incl. HBO intake

The goal is to choose competences the student wants to develop and to carry out activities to actually develop those competences. An introductory lecture will be given at the beginning of the semester. See the timetable. Students must register via OASE at the start of the semester: <http://onderwijs.tue.nl>. Coaching is carried out by the portfolio tutor at the request of the student.

Presentation, 2010-2011 intake

Before starting the graduation phase the student holds a presentation for the group of his preferred graduation professor. In this he describes his Bachelors history, the competences that he has developed in (the space for elective course elements) the first year of the Masters phase, and which specific competences he still wishes to develop in the graduation project. It is to be regarded as an introduction and interview. He also makes a website where he discusses the competences he has developed. The Presentation course element is, in principle, a self study element. In the period leading up to this, the student can get instruction and guidance from the specialist on presentations. The student can work out the content with his portfolio tutor.

Changeover arrangement

Students of the 2006-2007 generation and earlier are covered by a Changeover arrangement. They have registered as Changeover students via OASE, and can find all necessary information there. Students covered by the Changeover arrangement, but not registered in OASE, are advised to contact ir. M.P.G. Heijman. Further information can be obtained from the Portfolio coordinator, ir. M.P.G. Heijman, tel. 2293, e-mail: portfolio.bouwkunde@bwk.tue.nl

1.10 The Examinations Board

Composition of the Examinations Board

The board of the faculty had set up the examinations board in the present composition on November 24th 2010 and had appointed the following members on the basis of inside and external expertise in the field of the present program or group of programs:

Chair: vacancy
Members: dr. A.G. van Asch(Fac. of Mathematics and Computer Science), dr. ir.G.I. Curulli (until 01-01-2015),
ir. H.J.M. Janssen(vice chair), dr. A.F.H.J. den Otter arch AvB(until 01-01-2012), ir. R.A. Rutgers (until
01-01-2015), dr. ir. A.W.M. van Schijndel (until 01-02-2015).
Secretary: miss. J.H. Steetskamp, Bth
Advisors: drs. W.J. Buurke and mr. J.C.Th. Marks

The appointment of the members is for the term of four years. Reappointments are always possible. The appointment of the chair is for the term of four years. Reappointment is only possible for another term of four years.

The Examinations Board consists of the following subcommittees:

- daily activities (= chair and vice chair)
- classifying programs, granting exemptions

The Examinations Board has the following tasks:

- a) To safeguard the quality of the interim examinations and final examinations (section 7.12b, under a of the WHW).
- b) To establish procedures and instructions within the framework of the Education and Examination Regulations for assessing and determining the results of interim examinations and final examinations (section 7.12b, under b, of the WHW).
- c) To grant permission to take an optional degree program (section 7.12b, subsection 1, under c, of the WHW).
- d) To grant an exemption from taking one or more interim examinations (section 7.12b, subsection 1, under d of the WHW).
- e) To provide students with opportunities to take one or more elements of the final examination before they have passed a program's propaedeutic examination (section 7.30, subsection 3 of the WHW).
- f) To grant permission to take electives.
- g) To grant permission to take a free minor (see Education and Examination Regulations).
- h) To award certificates (see Education and Examination Regulations).
- i) To decide about the binding study recommendation taking into account certain personal circumstances that can lead to postponing the binding study recommendation.
- j) To grant permission to final thesis projects
- k) To grant permission to students who can replace the maximum of three subjects or projects as stated in article 1.4.4 of the Education and Examination Regulations for the bachelor program 'Bouwkunde'.
- l) To pursue the remaining competences referred to in the the Education and Examination Regulations.

2. ABP Masters Program Regulations

2.1 Masters courses admission requirements

The following Bachelors certificates from the indicated institutions for higher education give direct admission to the Masters course.

- ABP (TUD- Technical University of Delft, TU/e)

Some bachelors certificates from the institutions for higher education give admission to the Masters courses with a maximum deficit of 30 ECTS credits. See: <http://www.doorstroommatrix.nl/>

HBO graduates of the courses Bouwkunde, Civiele Techniek, and Bouwtechnische Bedrijfskunde are admitted to the Masters course after completing a transition programme. (See Appendix 2 to the Education and Examination Regulations for ABP Bachelors courses 2011-2012. And the appendix under chapter 4 in this text.

Students from all other courses at home or abroad must submit an admission application to the Departmental Admissions Committee: secretary drs J. Blankestijn (J.Blankestijn@bwk.tue.nl)

2.2 Compensation regulation relating to the Masters program

According to article 4.2 of the Examination Rules and Procedures 2011-2012, all course elements that form part of the Final Examination of the Masters course must be completed with a pass grade. This means that that no single grade 'five' is acceptable in the course elements and projects.

HBO graduates who follow the transition program prior to the ABP Masters courses are allowed to have a single grade '5' in the transition program for a subject with a maximum value of 3 ECTS credits.

2.3 Masters Cum Laude regulation

According to article 7.2 of the Education and Examination Regulations for the Master course 2011-2012, a Masters cum laude graduation must satisfy the following conditions (also referred to as the special qualifications).

The Examination Committee awards a diploma "cum laude" when the arithmetic average grade achieved by the student for those course elements taken by the student as part of the course is '8' or higher, with the exception of the graduation project, which must be graded as a '9' or higher. Furthermore, none of the completed course elements may be graded lower than a '6'.

2.4 ABP Masters Study Sequence

Introduction

The Education and Examination Regulations 2011-2012 contains various rules that specify that you must work through the course in a certain sequence. There are a number of reasons for this.

- There can be content dependencies between course elements.
- The entry to a following phase can be subject to rules.
- Some rules are intended to prevent delaying tactics.

For a complete overview of the rules see annex 3 of the Education and Examination Regulations for the ABP course 2011-2012.

Without repeating all the rules once again, there follows an explanation of the consequences that these have for the sequence in which you work through the course.

Admission to the ABP Masters Phase

'Own' Bachelors

Many students who undertake the ABP Bachelors course continue on to the ABP Masters course. You are allowed to start this if you have a (provisional) registration for the ABP Masters. You must apply for the provisional registration yourself, and you are accepted if you have obtained 160 ECTS credits in the Bachelors phase, including all the

projects and Portfolio 3. You are fully registered when you have been awarded the Bachelors diploma.

HBO intake

Students who are following the transition program are allowed to participate in ABP Masters examinations if they are registered as probationary Masters students. You must apply for this registration yourself, and are accepted if you have gained 15 ECTS credits of the transition program. You are also allowed to participate in Masters project work if you have also completed your transition project.

You can be registered as a probationary Masters student for a maximum of 12 months. You are given full Masters registration when you have completed the transition program.

Admission to the second year of the ABP Masters Phase

'Own' Bachelors

You are allowed to start the second year of the ABP Masters Phase if you have obtained the ABP Bachelors diploma.

HBO intake

Students in this category are allowed to start the second year of the ABP Masters Phase if they have completed the transition program.

Graduation project

You are allowed to start the graduation project if you have successfully completed the other Masters projects, Learning Portfolio 4 and the Masters Portfolio.

Enforcement

The policy is aimed at ensuring that students comply with this sequence. This means that there will be increasing checks on whether you are allowed to participate in project work or take examinations. It is therefore possible that you might be notified that you are not allowed to start a project or take an examination. If you have the opinion that this is unjustified, you should consult the study advisor. You can explain your situation to him/her. The Director of Education will then decide whether there is good reason to admit you to the project or examination after all.

2.5 Academic attitude

Rules of conduct for students of Eindhoven University of Technology, Faculty of Architecture, Building and Planning

From the students of the Faculty of Architecture, Building and Planning the following aspects of good conduct are expected:

Self-reliance

Students of the Faculty of Architecture, Building and Planning strive to get the utmost of themselves. They keep themselves informed about the curriculum. They become university graduates by studying for oneself, by gathering information in a precise way and solving problems.

Students plan their study activities precisely, sign up for subjects and examinations timely and submit their papers before the intended deadline. They do their own work and do not commit plagiarism*.

*See annex 3 (graduation regulations) of the Examination Rules and Procedures of the Faculty of Architecture, Building and Planning of the TU/e 2011-2012 concerning rules of avoiding committing plagiarism, quoting and referring

Active participation in education

Students attend the courses of lectures in an active way. The students attend the lectures and other educational activities in time and have prepared themselves as could be expected. They are able to be in school en teach under optimal circumstances. Students consider it important to be active in students associations and to sit on a committee in order to develop in an academic way and to learn how to cooperate with others. The person that studies at an university owns an intellectual curiosity and shows interest in social and scientific developments .

Respect

Students of the Eindhoven University of Technology behave in an honest and respectful way related to one another and to staff members. This kind of behavior is noticeable in verbal and written communication. Students hold themselves back from verbal and physical violence. Respect can also be shown in other ways.

During educational activities students do not use their cellphone or take food they brought with them. Students also handle each others possessions and university facilities like computers, the library, lecture-rooms and other communal facilities with care.

2.6 Graduation regulations

(Annex 3 to article 4.4 of the Examination Rules and Procedures 2011-2012)

Prior to the graduation project, a graduation plan must be written.

The graduation plan (subject code 7..41)

Before starting on the graduation phase, the student (in consultation with the preferred graduation Professor/ Associate Professor) must prepare a graduation plan. This graduation plan must cover the following points.

- Possible weighting factors
- The subject and motivation for choosing this subject
- An outline of the objective and problem definition of the graduation project
- The social and/or scientific importance of the graduation project
- An outline plan of the activities to be carried out in the graduation project
- An overall time plan
- A proposal for the composition of the Graduation Supervision Committee
- Agreements on evaluation points during the graduation phase

The graduation plan must be approved by the graduation Professor / Associate Professor.

The purpose of the graduation phase is to achieve the final attainment level of the Masters course. The student must be registered as a graduation student by means of the appropriate forms that can be obtained from the Educational Office (VRT 2.11).

Before starting on the graduation phase, the student must have completed the following elements of the Masters course with a pass grade:

- the two projects from the first year of the Masters course, as well as the project from
- the first semester of the second year of the Masters course,
- all the compulsory course elements of the Masters program.

During the graduation project the student holds public colloquia. Note the following points.

- It is conceivable that there are several evaluation points during the graduation process. These are corded in the graduation plan.
- In any case the student holds the final colloquium. Here, to round off the graduation project, the results achieved are presented.

Final colloquia must be announced in advance

The Graduation Supervision Committee

On commencement of the graduation project, the student must establish a Graduation Supervision Committee consisting of at least three members authorized to conduct the Final Examination, of whom at least two are members of the academic staff of the Department of the Build Environment of the TU/e. At least one member of the Graduation Supervision Committee must be a Professor or Associate Professor and occupy a Chair or Associate Professorship in the competence area of the graduation project. The Professor or Associate Professor is chairman of the Graduation Supervision Committee. The chairman oversees the composition of the Graduation Supervision Committee. The Examination Committee is responsible for the final approval of the Supervision Committee.

One member of the Graduation Supervision Committee can be an external expert. The external expert must be a subject specialist who does not work in the Department of the Build Environment of the TU/e. Normally the external expert must be a University graduate. However, in special cases a HBO diploma is acceptable if the external expert possesses a demonstrable, high level of expertise. The chairman of the Graduation Supervision Committee makes sure that the external expert meets these requirements. He will submit a request to the Examination Committee using an appropriate form.

The members of the Graduation Supervision Committee evaluate the graduation project. Any persons who

have been involved in the graduation process may act only as advisors. They have no formal influence on the assessment.

In the case of graduation projects of the Masters course in Building Services and in Construction Management and Engineering, one of the members of the academic staff of the Department of the Build Environment can be substituted by a member of the academic staff of one of the other relevant Departments of the TU/e. Requests to deviate from the above must be submitted to the Examination Committee of the Department of the BUod Environment of the TU/e, with argumentation and with the approval of the chairman of the Graduation Supervision Committee.

In the evaluation of the graduation project the following aspects are taken into consideration:

- the product: the quality of the content of the project,
- the process: the organization and implementation of the project, and their planning,
- the presentation: the manner of presentation and reporting.

If weighting factors relating to these aspects must be taken into account, they must be made known in advance and be recorded in the graduation plan. If that has not been done, there is no question of weighting factors being applied in the evaluation of the aspects mentioned.

Each member of the Graduation Supervision Committee carries the same weight in the assessment. The student who is graduating is informed of the arguments that have formed the basis of the assessment.

The following requirements must be met before a student's graduation is considered in the meeting of the Examination Committee.

- The student must register at least four weeks before the meeting of the Examination Committee via internet at <http://onderwijs.tue.nl>. See the closing dates that are listed there for registering for the Final Examination.
- All the assessments of course elements, project work (including the graduation project), and portfolio elements must be submitted to the Educational Office at the latest two weeks before the meeting of the Examination Committee.
- All requirements of the graduation project must have been met, that is, there must be an assessed thesis and a final colloquium must have been held,
- The approved thesis with signature, as well as the article, must be submitted to the Educational Office at least two weeks before the meeting of the Examination Committee.

According to the Education and Examination Regulations, there are at least three opportunities per year for taking the Final Examination. In principle, the Examination Committee convenes a meeting on one of the last five working days of every month, excluding the academic holidays, at which it determines the result of the Final Examinations of the students who have registered for it in accordance with the rules. The dates of these meetings are announced centrally on behalf of the Examination Committee before the beginning of the academic year. The student receives the final diploma (in Dutch and English) only if the student has registered, and the Examination Committee has declared that the student has passed.

Guidelines for the thesis

A report of the graduation project is made in the form of a written thesis, possibly supplemented by illustrations or other media.

The thesis can be submitted not only as 'hard copy' (on paper) but also digitally via an appropriate software environment. The student must produce a summary in English.

The thesis must meet the following requirements.

1. Title page

The thesis must be provided with:

- a title (the (sub)title must indicate accurately the subject of the thesis; the thesis becomes accessible for other interested parties via key words taken from the title),
- surname and initials of the student and his student number,
- graduation date,
- names of the members of the Graduation Supervision Committee,
- the name of the course and the University.

2. Summary

The Summary must summarize the main lines of the thesis. The Summary must be readable independent of the thesis and be written in English.

3. Contents List

The Contents List reflects the structure of the thesis, organized in chapters and sections. Appendices, figures, tables, etc. must be shown in the Contents List.

4. Introduction

The Introduction states:

- the problem definition / objective of the thesis,
- the practical / social and/or theoretical / scientific importance of the thesis,
- the organization of the thesis.

5. Approach

The thesis includes a description of the working method used. What theories / methods / techniques have been used to achieve the goal of the research and/or design, and how have these theories / methods / techniques been applied during the graduation project?

6. Activities

The activities that have led to the final results are discussed.

7. Results

The results obtained are presented in the thesis in a well organized manner.

8. Conclusions, recommendations, and/or discussion / reflection

If the graduation project lends itself to this, the most important conclusions resulting from the project should be stated, and recommendations for possible follow-up projects should be given. In any case, the project must be critically evaluated (has the objective been achieved, what could have been done better, etc.?)

9. Literature

The thesis includes a list of references to the literature used and other sources consulted. (See also the Rules for Citations and References, below).

Rules for Citations and References

The use of another person's work is permitted as long as the sources are reported clearly. If a student does not report sources consulted, he is guilty of plagiarism. The following rules apply for Citations and References.

1. Making use of a spoken text

The quoted text can be presented in italics between quotation marks, giving the name of the person cited and, if known, the year in which the statement concerned was made.

2. Making use of a written text

In this case the text is quoted (possibly in italics) with the following information (depending on the source):

- surname and initials of the author(s), title of the book, year of publication (in brackets), publisher (name and place), and the page numbers concerned (pp ..-..),
- surname and initials of the author(s), title of the article, name of the journal, volume and number, and the page numbers concerned (pp..-..),
- surname and initials of the author(s), title of the report, year (in brackets), publisher (name and place), and the page numbers concerned (pp ..-..),
- surname and initials of the author(s), title of the article, name of the newspaper, date, and page number
- title of the brochure / document, year of publication, name of publisher (manufacturer, supplier, organization etc.),
- internet website: http address and date, author(s), initial(s), name of the site, name of the company or institution (if known).

The following two methods are the most common for referring to sources in the body of the thesis:

Numbers between square brackets that refer to the literature list at the end of the thesis.

Name(s) of author (s) and year between curved brackets (name, year) that refer to the literature list at the end of the thesis.

3. Making use of drawings and photographs

In this case the name of the artist or photographer must be stated immediately below the drawing or photograph being reproduced. On publication of the thesis, royalties must be paid to these third parties. This also applies for images copied from internet if they are copyrighted.

These rules are taken from: Herwijnen, F. van, (2003) Plagiaat= fraude, Bouwpers, number 10, volume 19, pp 9-10

Submitting the thesis

Every thesis must bear the signature of the chairman of the Graduation Supervision Committee.

Every thesis must be accompanied by a summary article in the form of a separate Appendix (two A4 pages), containing a brief overview of:

- the objective of the graduation assignment,
- the methods and means used to achieve this objective,
- the results and conclusions set against the goals originally defined.

2.7 Fraud

If fraud (such as cribbing, plagiarism, etc.) is established or suspected in relation to the taking of an examination, under article 3.2 of the Examination Rules and Procedures 2010-2011 this must be recorded as quickly as possible. The Examination Committee can exclude the student from further participation in the relevant examination for a period of a maximum of one year. By examination is understood not only a written or oral examination, but also every assessment of the knowledge, insight, and skills of a student, thus including that of a work piece, project work, and completed practical exercise.

Before the Examination Committee takes any decision the student is given the opportunity to be heard.

Plagiarism is also seen as fraud. Quoting from someone's work, words, or ideas is citation. This is permitted, as long as the source is reported. However, if texts, ideas, argumentation, or images are taken over from third parties (for example taken over from available digital information sources, derived from internet websites, or scanned from books and journals), and these are passed off as own original work, this is seen as plagiarism. The plagiariser commits a deception and is therefore committing fraud.

The graduation regulations contain a number of rules for citing other people's work without committing plagiarism (see Rules for Citations and References of section 2.6).

2.8 Important internet links

Department of the Build Environment:

<http://w3.bwk.tue.nl/nl>

Library of the Department of the Build Environment:

<http://w3.tue.nl/nl/diensten/bib/>

Study Association CHEOPS and other master study associations:

<http://www.cheops.cc/>

<http://www.bwk.tue.nl/flux/>

<http://www.support.tue.nl/>

<http://www.koerstue.nl/>

<http://www.anarchi.bwk.tue.nl/>

<http://www.viastedebouw.nl/>

Timetables, subject information, examinations, agendas and calendars etc:

<http://onderwijs.tue.nl>

Certificate programs:

- Technology Entrepreneurship,
- Technology, Development and Globalization,
- Philosophical Reflection
- Technology and Sustainability

<http://onderwijs.ieis.tue.nl/nl/certificaten/te>

Study abroad, participating in exchange programs:

http://w3.bwk.tue.nl/nl/onderwijs/foreign_students/exchange_students/

Academic development:

http://w3.tm.tue.nl/uploads/media/AC_NL_web.pdf

Information for master students:

http://w3.tue.nl/en/services/cec/study_information/information/

3. Program of the ABP Masters course

Academic year 2011 - 2012, for the ABP 2011 intake

3.1 Architecture

Course program year 1, generation 2011

Courses year 1, semester A						
Code	Course	ECTS	Quarter 1	Quarter 2	Quarter 3	Quarter 4
7PF03	Masterportfolio (completion in 2A)		████████████████████			
7X600	Strategies & Places	6	████████████████████			
7X700	Philosophy and Architecture	3	██████████			
7X865	Seminar	6	████████████████████			
7XS15	Masterproject 1	14	████████████████████			
Courses year 1, semester B						
7PF03	Masterportfolio (completion in 2A)				████████████████████	
7X865	Seminar				████████████████████	
7X500	Architectural Engineering	6			████████████████████	
7XS25	Masterproject 2	14			████████████████████	
Courses year 2, semester A						
7PF03	Masterportfolio	3	██████████			
7X545	Masterproject 3	9	████████████████████			
7X811	Methodology in Architectural history and theory	3	████████████████████			
7XX41	Learning portfolio	4	████████████████████			
Courses year 2, semester B						
7XX37	Final Project (starts in quarter 2)	37		████████████████████		
	Compulsory course elements	105				
	Optional course elements	15				
Optional course elements						
7X655	Morphology stereotomic	3	████████████████████			
7X886	Theory of architecture 1	3		██████████		
7X900	Architecture analysis	6			████████████████████	
7XX07	Handdrawing: Panamarenko (in dutch)	3	████████████████████			
7X660	Product presentation	2	██████████		██████████	
7X840	Theory of architecture 2	2				██████████
7X651	Vormstudie B (in dutch)	3			████████████████████	

3.2 Building Technology

Course program year 1, generation 2011

Courses year 1, semester A							
Code	Course	ECTS	Quarter 1	Quarter 2	Quarter 3	Quarter 4	
7PF03	Masterportfolio (completion in 2A)		████████████████████				
7T612	Presentation in English	3	████████████████████				
7T645	Research methodology for BT	2		████████████████			
7TS15	Masterproject 1	14	████████████████████				
	Optional courses see below						
Courses year 1, semester B							
7PF03	Masterportfolio (completion in 2A)				████████████████████		
7M842	Free form design	3				████████████████	
7T750	Product development	3				████████████████	
7T552	Industrial design	2			████████████████		
7T810	Integrated building technology	3			████████████████		
7TS25	Masterproject 2	14			████████████████████		
	Optional courses see below						
Courses year 2, semester A							
7PF03	Masterportfolio	3	████████████████████				
7T545	Masterproject 3	9	████████████████████				
7TT41	Learning portfolio	4	████████████████████				
Courses year 2, semester B							
7TT37	Final Project (starts in quarter 2)	37		████████████████████			
	Compulsory course elements	97					
	Optional course elements	23					
Optional courses (per profile)							
7T655	Technology transfer	3		████████████████			
7T850	Post disaster building and product development	3		████████████████			
7T672	Lightweight structures	3		████████████████			
7T910	Structural design and engineering for tropical countries	3	████████████████				
7T777	Workshop manufacturing	2	████████████████████				
7S620	Durability aspects of building materials	3			████████████████		

3.3 Construction Technology

Course program year 1, generation 2011 (All courses in Dutch)

Courses year 1, semester A							
Code	Course	ECTS	Quarter 1	Quarter 2	Quarter 3	Quarter 4	
7PF03	Masterportfolio (completion in 2A)		█				
7R800	Materiaal en Materieel	6	█				
7R900	Tijd en Kosten	6	█				
7RS15	Masterproject 1: onderzoek in uitvoering	14	█				
Courses year 1, semester B							
7PF03	Masterportfolio (completion in 2A)				█		
7R730	Maatbeheersing	6			█		
7R750	Organisatie en cultuur	3			█		
7RS25	Masterproject 2: uitvoeringsplan	14			█		
Courses year 2, semester A							
7PF03	Masterportfolio	3	█				
7R545	Masterproject 3: participerend observeren	9	█				
7RR41	Learning portfolio	4	█				
Courses year 2, semester B							
7RR37	Afstudeerproject (start in semester A)	37		█			
	Totaal verplichte vakken en projecten	102					
	Keuzevakken (te kiezen uit ALLE masters)	18					

3.4 Design and Decision Support Systems

Course program year 1, generation 2011

Courses year 1, semester A						
Code	Course	ECTS	Quarter 1	Quarter 2	Quarter 3	Quarter 4
7PF03	Masterportfolio (completion in 2A)		█			
7MS15	Masterproject 1	14	█			
	Optional courses see below	16				
Courses year 1, semester B						
7PF03	Masterportfolio (completion in 2A)				█	
7MS25	Masterproject 2	14			█	
	Optional courses see below	16				
Courses year 2, semester A						
7PF03	Masterportfolio	3	█			
7M545	Masterproject 3	9	█			
7MM41	Learning portfolio	4	█			
	Optional courses see below	7				
Courses year 2, semester B						
7MM37	Final Project (starts in quarter 2)	37		█		
	Compulsory course elements	81				
	Optional course elements	39				
Choose at least 20 ECTS from these optional courses						
7M900	Fundamentals in Building Information Modelling	5	█			
7M830	Basic techniques for urban modelling and planning	3	█			
7M834	Advanced techniques for urban modelling and planning	3		█		
7U855	Research methods for the build environment	3	█			
7W580	Urban theory and design of urban space	5		█		
7M880	Collaborative design and engineering	7				█
7M836	Animation and rendering	3				█
7M840	Decision support for planning and design	3			█	
7M842	Freeform design	3				█

3.5 Physics of the Built Environment

Course program year 1, generation 2011

Courses year 1, semester A

Code	Course	ECTS	Quarter 1	Quarter 2	Quarter 3	Quarter 4
7PF03	Masterportfolio (completion in 2A)		████████████████████			
7S532	Heat and moisture transfer in building envelopes & exercise	5	████████████████████			
7S650	Structure-borne sound in buildings	2		██████████		
7S750	State of the art in building performance simulation for integrated solutions	3	██████████			
7S801	Computational building physics and systems using matlab	1	██████████			
7S815	Design of sustainable energy systems for the built environment	3	██████████			
7S892	CFD for building engineering	3		██████████		
7SS15	Masterproject 1 (Research, design, consultancy)	14	████████████████████			

Courses year 1, semester B

7PF03	Masterportfolio (completion in 2A)				████████████████████	
7S612	Roomacoustics	3			██████████	
7S620	Sustainable technology	3			██████████	
7S630	Lighting technology	2			██████████	
7S632	Lighting technology, exercises	1				██████████
7SS25	Masterproject 2 (Research, design, consultancy)	14			████████████████████	

Courses year 2, semester A

7PF03	Masterportfolio	3	████████████████████			
7S545	Masterproject 3 (Preparation final project)	9	████████████████████			
7SS41	Learning portfolio	4	████████████████████			

Courses year 2, semester B

7SS37	Final Project (starts in quarter 2)	37		████████████████████		
	Compulsory course elements	107				
	Optional course elements	13				

Optional courses

OT400	Academic skills in English 1	3	████████████████████			
OT500	Academic skills in English 2	3	████████████████████			
7N500	Practicum bouwkundewinkel	3	Self study			
7S812	Meetexcursie	3				██████████
7S820	Basis building performance simulation	2	Self study			
3B470	Fysische transportverschijnselen	3				
4P510	Renewable energy sources	3				
4A320	Systems analyses	3				
4A250	Signal analyses	3				
0P421	Perception	3				
7Y700	Sustainable building systems modelling	3			████████████████████	
7S810	Computational modeling for building physics and systems	3	Self study			

3.6 Real Estate Management and Development

Course program year 1, generation 2011

Courses year 1, semester A							
Code	Course	ECTS	Quarter 1	Quarter 2	Quarter 3	Quarter 4	
7PF03	Masterportfolio (completion in 2A)		█				
7U971	Housing strategies	3		█			
7US15	Masterproject Asset & portfoliomanagement	14	█				
Courses year 1, semester B							
7PF03	Masterportfolio (completion in 2A)				█		
7U912	Real estate market analysis and investment decisions	3				█	
7U972	Urban strategies	3			█		
7U973	Real estate literature	3			█		
7US25	Masterproject 2	14			█		
Courses year 2, semester A							
7PF03	Masterportfolio	3	█				
7U855	Research methods for the built environment	3	█				
7U890	Research skills	6	█				
7U545	Masterproject 3	9	█				
7UU41	Learning portfolio	4	█				
Courses year 2, semester B							
7UU37	Final Project (starts in quarter 2)	37		█			
	Compulsory course elements	102					
	Optional course elements	18					
Optional courses							
7M830	Basic techniques for urban modelling and planning	3	█				
0Z150	Urban development law	3			█		
7U950	Real estate finance for engineers	5			█		
7U734	Analyseren programmeren evalueren	3				█	
7U990	Real estate valuation	6				█	
0E510	Privaatrechtelijk bouwrecht	6			█		

3.7 Structural Design

Course program year 1, generation 2011

Courses year 1, semester A							
Code	Course	ECTS	Quarter 1	Quarter 2	Quarter 3	Quarter 4	
7PF03	Masterportfolio (completion in 2A)		████████████████████				
7P642	Steel structures 3	3		████████████████			
7P840	Finite element method	3		████████████████			
7P865	Energy principles of structures	3	████████████████				
7P900	Structural design 8, capita selecta	2		████████████████			
7PS15	Masterproject 1	14	████████████████████				
Courses year 1, semester B							
7PF03	Masterportfolio (completion in 2A)				████████████████████		
7P930	Geotechnics: strength, building applications	3				████████████████	
7P505	Stability of structures	3			████████████████		
7P575	Timber structures 3	3			████████████████		
7P632	Concrete structures 3 and exercise	3			████████████████		
7P770	Material aspects of structural stability	1				████████████████	
7PS25	Masterproject 2	14			████████████████████		
Courses year 2, semester A							
7PF03	Masterportfolio	3	████████████████████				
7P545	Masterproject 3	9	████████████████████				
7PP41	Learning portfolio	4	████████████████████				
Courses year 2, semester B							
7PP37	Final Project (starts in quarter 2)	37		████████████████████			
	Compulsory course elements	102					
	Optional course elements	18					
Optional courses (per profile)							
7P882	Aluminium structures	3	████████████████				
7P725	Masonry structures	3	████████████████				
7P890	Structural design 7	2		████████████████			
7P672	Lightweight structures	3		████████████████			
7P690	Prestressed concrete structures	2	████████████████				
7P660	Experimental modelling of structures	3	████████████████████				
7P870	Nonlinear finite element method	3				████████████████	
7P830	Structural design: Safety, reliability, loadings	2				████████████████	
7P680	Prefabricated concrete structures	1			████████████████		

3.8 Urban Design and Planning

Course program year 1, generation 2011

Courses year 1, semester A						
Code	Course	ECTS	Quarter 1	Quarter 2	Quarter 3	Quarter 4
7PF03	Masterportfolio (completion in 2A)		████████████████████			
7W580	Urban theory and design of urban space	5	████████████████████			
7W565	Urban analysis	5	████████████████████			
7W640	Research methods in architecture and urbanism	5	████████████████████			
7WS15	Masterproject 1	14	████████████████████			
Courses year 1, semester B						
7PF03	Masterportfolio (completion in 2A)				████████████████████	
7W265	Urbanistic concepts	5			████████████████████	
7W600	Green strategies	5			████████████████████	
7WS25	Masterproject 2	14			████████████████████	
Courses year 2, semester A						
7PF03	Masterportfolio	3	████████████████████			
7W545	Masterproject 3	9	████████████████████			
7WW41	Learning portfolio	4	████████████████████			
Courses year 2, semester B						
7WW37	Final Project (starts in quarter 2)	37		████████████████████		
	Compulsory course elements	106				
	Optional course elements	14				
Optional courses						
7M830	Basic techniques for urban modeling and planning	3	████████████████			
7M834	Advanced techniques for urban modeling and planning	3		████████████████		
7U972	Urban strategies	2			████████████	
7W700	History of housing	3			████████████	
7W750	Urban analysis and design techniques	2	Self study			
7X600	Strategies and places	3	████████████████			

4. Transition program for 2011-2012 HBO intake

HBO graduates in bouwkunde, Civil Engineering, and bouwtechnische bedrijfskunde gain admission to this Masters course via a transition program of 30 ECTS credits as shown below.

The transition program is part of the bachelor education. Because the bachelor education is taught in Dutch the transition program, and this part of the education guide are shown in Dutch.

4.1 Schakelprogramma voor zij-instromers Architecture, Building and Planning

Cursusjaar 2011 - 2012

De HBO afgestudeerden bouwkunde, civiele techniek en bouwtechnische bedrijfskunde hebben volgens artikel 1.4 van de Onderwijs- en Examenregeling (artikel 1.4 regelt de toelating tot de master opleiding Architecture, building and planning) toelating tot deze master opleiding via een schakelprogramma van 30 studiepunten. Zie ook punt L bijlage 1 van de Onderwijs- en Examenregeling 2011/2012. Dit ziet er als volgt uit:

Vakken Schakelprogramma, semester A					
Vakcode	Vaknaam	Sp	Kwartiel 1	Kwartiel 2	
7.513	Instaproject	7	██████████		
2DB15	Calculus 1	6	██████████		
2S410	Statistiek 1	2		██████████	
7W320	Onderzoekstechnieken	3		██████████	
7X011	Inleiding architectuur	3	██████████		
	Differentiatievakken afstudeerrichting	9	██████████		
	Totaal	30			
Differentiatievakken afstudeerrichtingen					
7X255	Typologische analysisische van het wonen	3	██████████		A
7W220	Stedebouwkundig ontwerpen	3		██████████	A/UDP
7T205	Bouwsystemen en productontwikkeling	3	██████████		BT
7T644	Duurzaam bouwen (sem. B) of keuzevak	3			A/BT
7X560	Bestaande omgeving herontwerpen	3	██████████		BT
0E510	Publiekrechtelijk bouwrecht	3	██████████		REMD
7R230	Uitvoeringstechniek 2	3	██████████		CT
7R200	Uitvoeringstechniek 3	3		██████████	CT
7M690	(Stede)bouwkundig ontwerpen met CAD	3		██████████	DDSS
7W400	Geografische informatiesystemen	3	██████████		DDSS/REMD
7W550	Verkeerstechnisch ontwerpen	3		██████████	DDSS
7S280	Stedebouwfysica wind en zon	2	██████████	██████████	PBE
7S292	Stedebouwfysica geluid	2	██████████		PBE
7S310	Bouwfysisch ontwerpen 3, oefening	3	██████████		PBE
7S410	Gebouwprestatie simulatie	2		██████████	PBE
7U355	Management van commercieel vastgoed	3		██████████	REMD
7P290	Mechanica 4	3	██████████		SD
7P730	Betonconstructies 2	2	██████████	██████████	SD
7P820	Constructief ontwerpen 5	2		██████████	SD
7P740	Staalconstructies 2	2		██████████	SD
.....	Keuzevak van bacheloraanbod 2e of 3e jaar				CT/SD/UDP

Afstudeerrichtingen

A: Architectuur

BT: Building Technology

CT: Construction Technology

DDSS: Design and Decision Support Systems

PBE: Physics of the Build Environment

REMD: Real Estate Management and Development

UDP: Urban Design and Planning

Anyone with questions about the course can contact the ABP Educational Office:

e-mail: opleidingsinstituut@bwk.tue.nl

The counter in Vertigo 2.11 is open daily between 12:00 and 14:00.

Postal address: TU/e, Faculteit Bouwkunde, Postbus 513, 5600 MB Eindhoven.

A great deal of information for HTO'-ers can also be found at the internet address:

http://w3.bwk.tue.nl/nl/onderwijs/overige_opleidingen/schakel_programma_voor_hbo_ers/faq/