



AALBORG UNIVERSITET

**CURRICULUM FOR THE MASTER'S  
PROGRAMME (CAND.TECH) IN  
SURVEYING AND PLANNING - 2017 -  
AALBORG**

MASTER OF SCIENCE (MSC) IN TECHNOLOGY  
AALBORG

## Curriculum for the Master's Programme (cand.tech) in Surveying and Planning - 2017 - Aalborg

[Link to this studyline](#)

Link(s) to other versions of the same line:

[Curriculum for the Master's Programme \(cand.tech.\) in Surveying and Planning, 2020, Aalborg](#)

## TABLE OF CONTENTS

§ 1: Preface .....	4
§ 2: Basis in Ministerial Orders .....	4
§ 3: Campus .....	4
§ 4: Faculty affiliation .....	4
§ 5: Study board affiliation .....	4
§ 6: Affiliation to corps of external examiners .....	4
§ 7: Admission requirements .....	4
§ 8: The programme title in Danish and English .....	4
§ 9: Programme specifications in ECTS credits .....	5
§ 10: Rules concerning credit transfer (merit), including the possibility for choice of modules that are part of another programme at a university in Denmark or abroad .....	5
§ 11: Exemptions .....	5
§ 12: Rules for examinations .....	5
§ 13: Rules concerning written work, including the Master's Thesis .....	5
§ 14: Requirements regarding the reading of texts in a foreign language .....	5
§ 15: Competence profile on the diploma .....	5
§ 16: Competence profile of the programme .....	6
§ 17: Structure and Contents of the programme .....	7
§ 18: Overview of the programme .....	7
§ 19: Additional information .....	9
§ 20: Commencement and transitional rules .....	9
§ 21: Amendments to the curriculum and regulations .....	10

## § 1: PREFACE

Pursuant to Act 261 of March 18, 2015 on Universities (the University Act) with subsequent changes, the following curriculum for the Master's programme in Surveying and Planning is stipulated. The programme also follows the Joint Programme Regulations and the Examination Policies and Procedures for The Technical Faculty of IT and Design, The Faculty of Engineering and Science, and The Faculty of Medicine.

Commencement of this curriculum is 1. September 2017 (only 1<sup>st</sup> semester).

## § 2: BASIS IN MINISTERIAL ORDERS

The Master's programme is organised in accordance with the Ministry of Higher Education and Science's Order no. 1061 of June 30, 2016 on Bachelor's and Master's Programmes at Universities (the Ministerial Order of the Study Programmes) and Ministerial Order no. 1062 of June 30, 2016 on University Examinations (the Examination Order). Further reference is made to Ministerial Order no. 258 of March 18, 2015 (the Admission Order) and Ministerial Order no. 114 of February 3, 2015 (the Grading Scale Order) with subsequent changes.

## § 3: CAMPUS

The programme is offered in Aalborg.

## § 4: FACULTY AFFILIATION

The Master's programme falls under The Technical Faculty of IT and Design, Aalborg University.

## § 5: STUDY BOARD AFFILIATION

The Master's programme falls under Study Board of Planning and Surveying

## § 6: AFFILIATION TO CORPS OF EXTERNAL EXAMINERS

The Master's programme is associated with the external examiners corps on Surveying Programme

## § 7: ADMISSION REQUIREMENTS

**Applicants with one of the following degrees are entitled to admission:**

- Bachelor's degree in Surveying, Planning and Land Management, Aalborg University.
- Bachelor's degree in Geography, Copenhagen University
- Bachelor's degree in Geography, Roskilde University

**Applicants without legal claim to admission:**

Students with another Bachelor's degree may, upon application to the Board of Studies, be admitted after a specific academic assessment if the applicant is deemed to have comparable educational prerequisites. The University can stipulate requirements concerning conducting additional exams prior to the start of study.

All international students applying to Aalborg University must document English language qualifications comparable to an 'English B level' in the Danish upper secondary school (minimum average grade 02).

## § 8: THE PROGRAMME TITLE IN DANISH AND ENGLISH

The Master's programme entitles the graduate to the Danish designation Cand.tech. i landinspektørvidenskab med specialisering i:

- opmåling og kortlægning *eller*
- arealforvaltning og planlægning

The English designation is: Master of Science (MSc) in Technology (Surveying and Planning) with specialisation in:

- Surveying and Mapping *or*
- Land Management

## **§ 9: PROGRAMME SPECIFICATIONS IN ECTS CREDITS**

The Master's program is a 2-year, research-based, full-time study program. The program is set to 120 ECTS credits.

## **§ 10: RULES CONCERNING CREDIT TRANSFER (MERIT), INCLUDING THE POSSIBILITY FOR CHOICE OF MODULES THAT ARE PART OF ANOTHER PROGRAMME AT A UNIVERSITY IN DENMARK OR ABROAD**

The Study Board can approve that passed programme elements from other educational programmes at the same level replaces programme elements within this programme (credit transfer).

Furthermore, the Study Board can, upon application, approve that parts of this programme is completed at another university or a further education institution in Denmark or abroad (pre-approval of credit transfer).

The Study Board's decisions regarding credit transfer are based on an academic assessment.

## **§ 11: EXEMPTIONS**

The Study Board's possibilities to grant exemption, including exemption to further examination attempts and special examination conditions, are stated in the Examination Policies and Procedures published at this website:

<https://www.studyservice.aau.dk/rules>

## **§ 12: RULES FOR EXAMINATIONS**

The rules for examinations are stated in the Examination Policies and Procedures published at this website:

<https://www.studyservice.aau.dk/rules>

## **§ 13: RULES CONCERNING WRITTEN WORK, INCLUDING THE MASTER'S THESIS**

In the assessment of all written work, regardless of the language it is written in, weight is also given to the student's formulation and spelling ability, in addition to the academic content. Orthographic and grammatical correctness as well as stylistic proficiency are taken as a basis for the evaluation of language performance. Language performance must always be included as an independent dimension of the total evaluation. However, no examination can be assessed as 'Pass' on the basis of good language performance alone; similarly, an examination normally cannot be assessed as 'Fail' on the basis of poor language performance alone.

The Study Board can grant exemption from this in special cases (e.g., dyslexia or a native language other than Danish).

The Master's Thesis must include an English summary. If the project is written in English, the summary can be in Danish. The summary is included in the evaluation of the project as a whole.

## **§ 14: REQUIREMENTS REGARDING THE READING OF TEXTS IN A FOREIGN LANGUAGE**

It is assumed that the student can read academic texts in modern Danish, Norwegian, Swedish and English and use reference works, etc., in other European languages.

## **§ 15: COMPETENCE PROFILE ON THE DIPLOMA**

The following competence profile will appear on the diploma:

A Candidatus graduate has the following competency profile:

A Candidatus graduate has competencies that have been acquired via a course of study that has taken place in a research environment.

A Candidatus graduate is qualified for employment on the labour market based on his or her academic discipline as well as for further research (PhD programmes). A Candidatus graduate has, compared to a Bachelor, developed his or her academic knowledge and independence so as to be able to apply scientific theory and method on an independent basis within both an academic and a professional context.

## § 16: COMPETENCE PROFILE OF THE PROGRAMME

### Competence profile of the Master's program (cand.tech.) with Specialisation in Surveying and Mapping

The graduate of the Master's programme must

#### Knowledge

- be knowledgeable about technologies and theories/methods for collecting spatial data.
- be knowledgeable about theories/methods for processing/integrating spatial data.
- be knowledgeable about theories/methods for assessing the quality of spatial data.

#### Skills

- master theories/methods related to collecting/processing/integrating spatial data
- be able to evaluate theories/methods related to collecting/processing/integrating spatial data.
- be able to identify problems related to collecting/processing/integrating spatial data.
- be able to assess/analyse problems related to collecting/processing/integrating spatial data.
- be able to suggest solutions to problems related to collecting/processing/integrating spatial data in consideration of various criterions (e.g. completeness, precision, resource consumption).
- be able to assess the quality of the suggested solutions.
- be able to assess the quality of spatial data coming from various sources.
- be able to communicate/discuss problems related to collecting/processing/integrating spatial data with both peers and non-specialists.
- be able to give advice regarding problems related to collecting/processing/integrating spatial data.

#### Competencies

- be able to master selected data collecting technologies.
- be able to master general skills required to solve typical data collecting/processing/integrating tasks.
- be able to initiate/plan/implement cross-disciplinary working relationships.
- be able to ensure his/hers further professional development.

### Competence profile of the Master's program (cand.tech.) with Specialisation in Land Management

The graduate of the Master's program:

#### Knowledge

- Has knowledge in land management based on research and practices concerning development and regulation of property and land use, spatial development and planning, land economics and land governance.
- Has knowledge in spatial planning and governance based on state-of-the-art international research.
- Understands legal issues concerning real property and legal and economic issues concerning public intervention in the property market.
- Understands legal issues concerning the use of and public interventions of private property, based on the highest research in the field.
- Can understand and, on a scientific basis, reflect over the knowledge areas and identify scientific as well as practical problems or challenges regarding urban and rural development. Including how this relates to societal values and norms of relevance for land management.

#### Skills

- Excels in main theories that relate to the knowledge areas and in scientific methods and tools and general skills related to planning and management activities for urban and rural development.

- Can apply, evaluate and select among the scientific theories, methods and tools regarding planning and land management for urban and rural development - and on a scientific basis, advance new analyses and solutions
- Can communicate research-based knowledge and discuss professional and scientific problems with both peers and non-specialists concerning planning and land management for urban and rural development

#### Competencies

- Can apply and combine theories, methods and tools to manage work and development situations that are complex, unpredictable and require new solutions.
- Can independently initiate and implement discipline-specific and interdisciplinary cooperation and assume professional responsibility on relevant aspects of planning and land management for urban and rural development
- Can independently take responsibility for own professional development and specialisation on planning and land management for urban and rural development

### § 17: STRUCTURE AND CONTENTS OF THE PROGRAMME

The program is structured in modules and organized as a problem-based study. A module is a program element or a group of program elements, which aims to give students a set of professional skills within a fixed time frame specified in ECTS credits, and concluding with one or more examinations within specific exam periods that are defined in the curriculum.

The program is based on a combination of academic, problem-oriented and interdisciplinary approaches and organized based on the following work and evaluation methods that combine skills and reflection:

- lectures
- classroom instruction
- project work
- workshops
- exercises (individually and in groups)
- teacher feedback

By prior agreement with the study board, it is possible for students to attend modules offered at other relevant master programmes.

#### Completion of the Master's program

The Master's program must be completed no later than four years after it was begun.

### § 18: OVERVIEW OF THE PROGRAMME

All modules are assessed through individual grading according to the 7-point scale *or* Pass/Fail. All modules are assessed by external examination (external grading) or internal examination (internal grading or by assessment by the supervisor only).

Offered as:						
Study programme: Common Semester						
Module name	Course type	ECTS	Applied grading scale	Evaluation method	Assessment method	Language
<b>1 SEMESTER</b>						
<a href="#">Surveying, Geoinformatics or Land Management</a> (PGLANK17105)	Project	20	7-point grading scale	Internal examination	Oral exam based on a project	English
<a href="#">Managing the Use of Land</a> (PGLANK17103)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	English
<a href="#">Modern Data Acquisition Methods</a>	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English

(PGLLANK17104)						
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Offered as:						
Specialisation: Surveying and Mapping						
Study programme: Surveying, Planning and Land Management						
Module name	Course type	ECT S	Applied grading scale	Evaluation method	Assessment method	Language
<b>2 SEMESTER</b>						
<a href="#">Positioning and Mapping</a> (PGLLANK17201)	Project	20	7-point grading scale	External examination	Oral exam based on a project	English
<a href="#">Statistics and Data Fusion</a> (PGLLANK17202)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
<a href="#">Positioning and Mapping Technologies</a> (PGLLANK17203)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
<b>3 SEMESTER</b> Option 1						
<a href="#">Professional Development</a> (PGLLANK17301)	Project	30	7-point grading scale	Internal examination	Oral exam based on a project	English
<b>3 SEMESTER</b> Option 2						
<a href="#">3rd semester option - GI</a>						
<b>3-4 SEMESTER</b> Option 3						
<a href="#">Extended Master's Thesis</a> (PGLLANK17302)	Project	60	7-point grading scale	External examination	Oral exam based on a project	English
<b>4 SEMESTER</b>						
<a href="#">Master's Thesis</a> (PGLLANK17401)	Project	30	7-point grading scale	External examination	Oral exam based on a project	English

Offered as:						
Specialisation: Land Management						
Study programme: Surveying, Planning and Land Management						
Module name	Course type	ECT S	Applied grading scale	Evaluation method	Assessment method	Language
<b>2 SEMESTER</b>						
<a href="#">Spatial Development and Planning</a> (PGLLANK17204)	Project	20	7-point grading scale	External examination	Oral exam based on a project	English
<a href="#">Spatial Planning and Governance</a> (PGLLANK17205)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	English
<a href="#">Land Use Regulation and Land Economics</a> (PGLLANK17206)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	English



3 SEMESTER Option 1						
<a href="#">Professional Development</a> (PGLLANK17301)	Project	30	7-point grading scale	Internal examination	Oral exam based on a project	English
3 SEMESTER Option 2						
<a href="#">3rd semester option - GI</a>						
3-4 SEMESTER Option 3						
<a href="#">Extended Master's Thesis</a> (PGLLANK17302)	Project	60	7-point grading scale	External examination	Oral exam based on a project	English
4 SEMESTER						
<a href="#">Master's Thesis</a> (PGLLANK17401)	Project	30	7-point grading scale	External examination	Oral exam based on a project	English

3rd semester option - GI						
Module name	Course type	ECT S	Applied grading scale	Evaluation Method	Assessment method	Language
<a href="#">Surveying, Geoinformatics or Land Management</a> (PGLLANK17105)	Project	20	7-point grading scale	Internal examination	Oral exam based on a project	English
<a href="#">Geospatial Information Technology</a> (PGLLANK17106)	Course	5	Passed/Not Passed	Internal examination	Written exam	English
<a href="#">3rd Semester Assignment</a> (PGLLANK17303)	Project	5	Passed/Not Passed	Internal examination	Written exam	English

### National or International Credit

After preceding approval by the Study Board the 3rd semester can be carried through at another educational institution in Denmark or abroad. Preceding approval (pre-credit) may be expected if studies at another educational institution will impart knowledge, skills and competences which correspond to the knowledge, skills and competences that could otherwise be obtained by following "Project semester – with or without an integrated project-oriented stay in a company", see above.

## § 19: ADDITIONAL INFORMATION

The current version of the curriculum is published on the Board of Studies' website, including more detailed information about the program, including exams.

All students who have not participated in Aalborg University's PBL introductory course during their Bachelor's degree must attend the introductory course "Problem-based Learning and Project Management". The introductory course must be approved before the student can participate in the project exam. For further information, please see the School of Architecture, Design and Planning's website.

## § 20: COMMENCEMENT AND TRANSITIONAL RULES

The curriculum is approved by the Dean of The Technical Faculty of IT and Design, and enters into force as of 1<sup>th</sup> of September 2017 (only 1<sup>st</sup> semester).

Students who wish to complete their studies under the previous curriculum from 2015 must conclude their education by the summer examination period 2018 at the latest, since examinations under the previous curriculum are not offered after this time.

## **§ 21: AMENDMENTS TO THE CURRICULUM AND REGULATIONS**

Minor editorial changes have been made in connection with digitalisation of the curriculum.