

UNIVERSITY OF AMSTERDAM
FACULTY OF SCIENCE
TEACHING AND EXAMINATION REGULATIONS
PART B: programme-specific section
Academic year 2022-2023
MASTER'S PROGRAMME IN LOGIC

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Chapter 1. General Provisions

Article B-1.1 - Definitions

Track: Specialisation area with prescribed components.

Article B-1.2 - Study programme information

1. The Master's programme in Logic, CROHO number 60226, is offered on a full-time basis and the language of instruction is English. This means that the Code of Conduct for Foreign Languages at the UvA applies for this programme (see Code of Conduct Governing Foreign Languages at the University of Amsterdam 2000 at the website: <https://www.uva.nl/en/about-the-uva/policy-and-regulations/rules-and-regulations/teaching/teaching.html>).
2. The MSc Logic is a two-year programme with a total study load of 120 EC.
3. Within the programme the following tracks are offered:
 1. Logic and Computation (L&C)
 2. Logic and Language (L&L)
 3. Logic and Mathematics (L&M)
 4. Logic and Philosophy (L&P)

Article B-1.3 - Enrolment

The programme starts at the beginning of the first semester (September). Re-enrolment at the beginning of the second semester (February) is possible.

Chapter 2. Programme objectives and exit qualifications

Article B-2.1 - Programme objectives

The aim of the Master of Science in Logic programme is to create an international, interdisciplinary and research-oriented learning environment in which students are educated as researchers in the area of Logic, Language and Information.

Article B-2.2 - Exit qualifications

On the basis of the acquired knowledge, understanding and skills, students that have successfully completed the programme are able to carry out research in the interdisciplinary area of Logic, Language and Information, within academia (e.g., continuing their education with doctoral studies) or outside the academia.

1. The insight of a graduate of the MSc Logic is based on a solid foundation in the most important aspects of logic, and its applications in computer science, linguistics, mathematics and philosophy; and a specialised knowledge at an advanced level of one or more of the following research areas: Logic & Computation, Logic & Language, Logic & Mathematics, Logic & Philosophy. More specifically, a graduate of the MSc Logic is able to
 - explain and apply classical results and proof methods used in mathematical logic; apply proof-theoretic and model-theoretic techniques to prove theorems; explain applications of logic in computer science, linguistics, mathematics and philosophy;
 - critically evaluate, apply and integrate advanced results and theories in their field of specialization (Computation, Language, Mathematics or Philosophy) based on an awareness of its research traditions and conventions;
 - analyze and model complex structures using formal methods, including at least one of the following types: predictive formal models of complex linguistic phenomena; formal properties of mathematical structures; formal theories for philosophical investigation; algorithms, and information-theoretic, computational and probabilistic models.
2. The acquired skills lie in the area of research and communication. More specifically, a graduate of the MSc Logic is able to
 - formulate research questions placed in the correct scientific context and address these in a research plan;
 - make a contribution to the theories and research methods in the area of expertise;

- collaborate with others in a multidisciplinary team;
 - deliver and defend presentations of their own work, both orally and in writing, following the conventions of their field of specialization.
3. Finally, a graduate possesses
- the intellectual mobility to transcend traditional boundaries between the academic disciplines that border their specialisation area.

Chapter 3. Further admission requirements

Article B-3.1 - Admission requirements

1. Students have to apply for admission to the Master's Programme in Logic. For a detailed description of the application procedure and of the admission requirements, see <https://msclogic.ilic.uva.nl/application>.
2. Applicants must have at least a Bachelor's or equivalent degree in one of the following fields:
 - computer science
 - artificial intelligence
 - mathematics
 - philosophy
 - linguistics

Applicants with a first degree in another field may also be considered, provided they have an appropriate formal background. The final decision lies with the Admissions Board of the Master's Programme in Logic.

3. All applicants must have a solid background in modern formal logic, affinity with mathematical and formal thinking and sufficient familiarity with mathematical proofs. In practice, this means that incoming students are expected to have had an introduction to mathematical logic up to and including the proof of the completeness theorem for first-order logic and have taken courses requiring mathematical or formal reasoning.
4. In addition, all applicants must display academic excellence, witnessed, e.g., by a very strong academic record or experience in undergraduate research.
5. In addition, all applicants must meet the English requirements (cf. Article 3.5).

Article B-3.2 - Pre-Master's programme

Not applicable.

Article B-3.3 - Limited programme capacity

Not applicable.

Article B-3.4 - Final deadline for registration

1. A request for admission to the Master's programme must be received before 15 March in the case of EU/EEA/Swiss students (including Dutch students) and before 15 January in the case of non-EU/EEA.
2. The Admissions Board may consider a request submitted after this closing date.

Article B-3.5 - English language requirements

1. The proficiency requirement in English as the language of instruction can be met by the successful completion of one of the following examinations:
 - a. IELTS: 6,5, at least 6 on each sub-score (listening/reading/writing/speaking);
 - b. TOEFL paper-based: 590;
 - c. TOEFL Internet-based test: 92, at least 22 on each sub-score (listening/reading/writing/speaking);

The foregoing examination must have been taken within two years before the student's enrolment.

 - d. C1 Advanced (CAE): minimal result 180
 - e. C2 Proficiency (CPE): passed.

Please note that the TOEFL-code for the University of Amsterdam is 9011.

An exemption from the English examination referred to in article 3.5.1 shall be granted to students who:

- f. Had previous education in secondary or tertiary education in one of the following English-speaking countries: Australia, Canada (English), New Zealand, Ireland, the United Kingdom or the United States of America;
- g. hold an English-language 'international baccalaureate' diploma;
- h. hold a Bachelor's degree from a Dutch university;
- i. passed the final examination for the subject of English as part of one of the following diplomas: VWO, Belgian ASO (Flemish).

Chapter 4. Curriculum structure

Article B-4.1 - Tracks

Every student has to select one of the following tracks:

1. Logic & Computation,
2. Logic & Language,
3. Logic & Mathematics, or
4. Logic & Philosophy.

Article B-4.2 - Composition of programme

1. The programme of the MSc Logic consists of the following components:
 1. Core components (at least 72 EC)
 - a. Compulsory components
 - b. Track components
 - c. Research projects
 - d. Restricted-choice electives
 2. Thesis Master of Logic (30 EC)
 3. Free-choice electives
2. In order to graduate, a student needs to have at least 120 EC in total, of which 72 EC have to be core components and has to satisfy the requirements of at least one track.
3. The curriculum of the student used for graduation must not have components that are similar in content. In case of doubt, the Examinations Board decides whether components are too similar to be part of the curriculum.
4. A complete list of components provided by the Master's programme can be found in Appendix 1.
5. Every component will be examined. Within the MSc Logic different types of examination are used: classroom exam, take-home exam, term paper, oral exam, homework, presentation and various combinations of these. The course catalogue lists the examinations types per component.
6. Within the MSc Logic different types of teaching methods are used. The course catalogue lists the teaching methods per component.

Article B-4.3 - Core components (at least 72 EC)

1. Compulsory components.
 - a. Logic, Language and Computation (3 EC)
 - b. Mathematical Proof Methods for Logic (6 EC)
2. The Examinations Board can grant an exemption from the obligation to take the course *Mathematical Proof Methods for Logic*. Students exempted from *Mathematical Proof Methods for Logic* are not allowed to take this course for credit.

3. Track components. Track components are compulsory courses determined by the student's area of specialisation:

Track Logic & Computation	EC
Computational Complexity	6
Information Theory	6

Track Logic & Language	EC
Meaning, Reference and Modality	6
Structures for Semantics	6

Track Logic & Mathematics	EC
Rudiments of Axiomatic Set Theory	6
Model Theory	6
Proof Theory	6

Track Logic & Philosophy	EC
Meaning, Reference and Modality	6
Philosophical Logic	6

4. Students in the tracks L&C and L&M who lack knowledge in the mathematical theory of modal logic are additionally required to take the course *Inleiding Modale Logica / Introduction to Modal Logic* (6 EC). If the Examinations Board observes that students have followed a course on the mathematical theory of modal logic during their undergraduate studies, then they are exempted from this requirement to complete these tracks, and they are any way not allowed to take the course for credit.

5. Students who have followed a course on Axiomatic Set Theory during their undergraduate studies are exempted from taking the course *Rudiments of Axiomatic Set Theory*. Students with this exemption are not allowed to take the course for credit.

6. Research Projects. Every student must have at least 6 and at most 24 EC in research projects. Projects can either be done in period c of the first, second or third semester or as individual research projects at any time. Credits for any learning activity that is not taught in the usual style of courses and/or that is not part of a regular Master's programme of a university, like for example, internships and summer schools, are counted towards the maximum of 24 EC in research projects.

7. Restricted-choice electives. Students can choose restricted-choice elective components from the list below.

List of Restricted-choice electives	EC
Advanced Neural and Cognitive Modelling	6
Advanced Topics in Computational Semantics	6
Advanced Topics in the Philosophy of Language	6
Algorithmic Game Theory	6
Automated Planning	6
Basic Probability: Programming	3
Basic Probability: Theory	3
Capita Selecta: Set Theory (not taught in 2022-2023)	6
Category Theory	8
Causal Inference: Philosophical Theory and Modern Practice	6
Cognition and Language Development	6
Computational Complexity	6
Computational Dialogue Modelling	6

Computational Learning Theory, Logic and Knowledge Representation	6
Computational Social Choice	6
Data-Driven History of Ideas	6
Deep Learning 1	6
Distributed Algorithms (VU)	6
Dynamic Epistemic Logic	6
Foundations of Neural and Cognitive Modelling	6
Functional Programming	6
Game Theory	6
How Music Works: Music Cognition	6
Information Theory	6
Interpretability and Explainability in AI	6
Inleiding Modale Logica (Introduction to Modal Logic)	6
Introduction to the Philosophy of Language	6
Knowledge Representation and Reasoning	6
Logic and Conversation	6
Logic and Philosophy	6
Logic, Games and Automata	6
Logical Foundations of Quantum Mechanics.	6
Logical Verification (VU)	6
Machine Learning 1	6
Machine Learning Theory	8
Mathematical Structures in Logic	6
Meaning, Reference and Modality	6
Model Theory	6
Natural Language Processing 1	6
Natural Language Processing 2	6
Ontology: Historical Perspectives	6
Philosophical Logic	6
Philosophy of Cognition	6
Philosophy of Mathematics	6
Philosophy of Science	6
Philosophy of Techno-Science	6
Proof Theory	6
Protocol Validation (VU)	6
Quantum Computing	8
Quantum Information Theory	8
Rationality, Cognition and Reasoning	6
Recursion Theory (not taught in 2022-2023)	6
Rudiments of Axiomatic Set Theory	6
Semantics and Cognition	6
Semantics and Philosophy	6
Seminar Mathematical Logic	3
Structures for Semantics	6
Syntax-Semantics Interface 1	6
Syntax-Semantics Interface 2	6
Term Rewriting Systems (VU)	6
Topics in Formal Epistemology	6
Topics in Modal Logic	6
Topology, Logic and Learning	6
Topos Theory (UU)	8
Type Theory	6

8. Students may use up to a maximum of 3 EC in transferable skills courses offered by the Faculty of Science *Professional Skills* learning trajectory. The 3 EC will count towards the maximum of 24 EC in research projects, but do not count for the minimum of 6EC in there.

Article B-4.4 – Research colloquia/seminars and the Thesis Master of Logic

1. As part of their research training students are expected to regularly attend local research colloquia and to participate in seminars such as: Algebra|Coalgebra Seminar; Computational Linguistics Seminar; Computational Social Choice Seminar; COOL seminar for Logic Students; DIP Colloquium; EXPRESS Seminar; ILLC Colloquium; Logic Tea; LiRA Seminar on Logic and Interactive Rationality; Meaning, Language and Cognition Seminar; Set Theory Seminar. The list of ILLC regular events is available here: <http://www.illc.uva.nl/NewsandEvents/Events/Regular/>.
2. The Thesis Master of Logic comprises 30 EC. The thesis is a report on a substantial piece of scientific work, usually including a significant amount of original research that clearly demonstrates the student's capacity to independently conduct research in an interdisciplinary environment.
3. Before their Thesis defence, students are required to (i) present their ongoing thesis project during a plenary MoL thesis presentation event or (ii) discuss their project once with an ILLC staff member outside of their supervisory team. Students are advised to do both.

Article B-4.5 – Free-choice electives

1. In addition, students may choose components from other Master's programmes. There is no limit on the number of free-choice electives that a student can take, as long as the curriculum meets the other requirements of Articles 4.2 and 4.3 (in particular, the curriculum must have at least 72 EC in core components).
2. Taking a course as free-choice elective does not require any prior permission from the Examinations Board.

Article B-4.6 - Practical exercise

Not applicable.

Article B-4.7- Sequence of examinations

1. The student may participate in examinations of a component only after the student has shown that he/she has the necessary prerequisite knowledge. To that end, a student must have passed the components stated in the course catalogue (per component), which are considered to be prerequisite knowledge for that course or component.
2. The assessment of projects in which several students have worked on an assignment will only be made at the end of the relevant teaching period. In principle, an individual resit is not possible.
3. If a student feels that on account of exceptional circumstances the assessment, referred to in paragraph 2, is not a realistic assessment of his/her effort, knowledge, skills or insights, the student may request the Examinations Board to nevertheless permit an individual test and/or resit.

Article B-4.8 - Participation in practical exercise and study group sessions

Not applicable.

Article B-4.9 - Maximum exemption

1. A student may apply to the Examinations Board for the approval of transfer credits. Details are regulated in the document Rules and Guidelines of the Examinations Board MSc Logic, available on the ILLC website: <https://msclogic.illc.uva.nl/current-students/regulations/oer/>
2. At most 36 EC of the student's programme can consist of such transfer credits.
3. A student may also apply to the Examinations Board for exemption from the requirement to take a track-specific compulsory component if they already possess the knowledge taught in that component. Such requests will only be granted in exceptional circumstances. If such a request is granted, the student must take additional restricted-choice electives to obtain a sufficient number of EC for graduation.

4. Components successfully completed elsewhere during the programme may supplement the student's examination programme, subject to permission from the Examinations Board.

Article B-4.10 - Validity period of examinations

The validity period of interim examinations and exemptions from interim examinations is limited, as described in part A, article 4.8.

Article B-4.11 - Degree

Students who have successfully completed their Master's examination are awarded a Master of Science degree. The degree awarded is stated on the diploma.

Article B-4.12 - Graduation procedure

1. To be able to graduate, the student's overall study programme has to be approved by the Examinations Board. To request approval a student should submit a Thesis Project and an Academic Plan in DataNose. Students can only do so when they have finished all coursework except for at most 18 EC.
2. The student cannot defend his/her Thesis before all other components from his/her Academic Plan are passed and all grades are registered.
3. The official graduation procedure of the MSc Logic is described in the document Rules and Guidelines of the Examinations Board MSc Logic available at the ILLC website:
<https://msclogic.illc.uva.nl/current-students/regulations/oer/>

Article B-4.13 - Double Master's Programme

In case a student combines two Master programmes and their components, the following requirements must be met in order to be awarded two Master's degrees:

1. The total programme of the candidate should amount to (i) at least 180 EC credits, if the second Master is a two-year programme with a study load of 120 EC; or (ii) at least 150 EC, if the second Master is a one-year programme with a study load of 60 EC.
2. The candidate's work for the programme (lectures, research work, etc.), must be of such a standard that all the compulsory requirements of each of the two programmes have been met.
3. The candidate must have conducted separate research work for both Master's degrees. This may consist of two separate Master theses with supervisors from the respective study programmes.
4. The Examinations Boards of both study programmes must approve the student's double Master's programme before the student commences the double Master's programme.
5. The Examinations Board will require a student to satisfy the same conditions as regular students. In particular, they must write a relevant Master thesis and choose components from the MSc Logic programme adding up to a total of at least 102 EC (see also Article 4.4 on restricted-choice electives).

Article B-4.14 - Free curriculum

1. Subject to certain conditions, the student has the option of compiling a curriculum of his/her own choice which deviates from the curricula prescribed by the programme.
2. The concrete details of such a curriculum must be approved beforehand by the most appropriate Examinations Board.
3. The free curriculum is put together by the student from the units of study offered by the University of Amsterdam and must at least have the size, breadth and depth of a regular Master's programme and must match the exit qualifications that apply for the Master's programme in Logic.
4. At least 60 EC must be obtained from the regular curriculum.

Chapter 5. Academic student counselling

Article B-5.1 - Academic student counselling

The academic student counselling for this programme consists of: a faculty study advisor, a Master of Logic advisor (Tanja Kassenaar), academic mentors and student mentors.

The list of current academic mentors is available here: <https://msclogic.illc.uva.nl/people/mentors/>.

The list of current student mentors is available here: <https://msclogic.illc.uva.nl/current-students/facilities/facilities/#student-mentors>.

Chapter 6. Teaching evaluation

Article B-6.1 - Teaching evaluation

Evaluation of the curriculum and of the individual courses and their place in the curriculum takes place through different means. These may comprise:

- discussion panels of members of the Programme Committee with students and professors, in order to evaluate individual courses and (aspects of) the curriculum;
- written student evaluations of individual courses, collected through students and/or the professor of that course and/or through other means provided by the University (such as UvA-Q).

All evaluation reports are discussed within the Programme Committee. The Programme Committee advises the programme director on the quality of the degree programme.

Chapter 7. Transitional and final provisions

Article B-7.1 - Amendments and periodic review

1. Any amendment to the Teaching and Examination Regulations will be adopted by the dean after taking advice, and if necessary approval by the relevant Programme Committee. A copy of the advice will be sent to the authorised representative advisory body.
2. An amendment to the Teaching and Examination Regulations requires the approval of the authorised representative advisory body as stated in the WHW.
3. An amendment to the Teaching and Examination Regulations is only permitted to concern an academic year already in progress if this demonstrably does not damage the interests of students.

Article B-7.2 - Transitional provisions

1. If the curriculum changes, the new curriculum and regulations also apply to students already enrolled. Students can however request the Examinations Board to have the curriculum as it was when they started their studies apply to them.
2. Transitional Provision for students who started in 2016-2017 or earlier.
As of 2017/2018, *Mathematical Proof Methods for Logic* is a compulsory component replacing *Basic Logic*. Students who were required to take *Basic Logic* can take *Mathematical Proof Methods for Logic* instead. Students who were not allowed to take *Basic Logic* are exempted from the obligation to take *Mathematical Proof Methods for Logic* and are not allowed to take the course for credit.
3. Transitional Provision for students who started in 2021-2022 or earlier.
As of 2022/2023, for new students, *Rudiments of Axiomatic Set Theory* replaces the MasterMath course *Set Theory* as the mandatory component in the track Logic and Mathematics, which has been the mandatory component in that track since 2017/2018, when the bachelor course *Axiomatic Set Theory* was taken out of the curriculum. Students, started before 22-23, who were required to take *Axiomatic Set Theory* or *Set Theory* can satisfy this requirement with either the course *Set Theory* or the course *Rudiments of Axiomatic Set Theory* instead. Students who were exempted from the obligation to take *Axiomatic Set Theory* before 2017, and students who were exempted from the obligation to

take *Set Theory* between 2017 and 2022, are exempted from the obligation to take *Rudiments of Axiomatic Set Theory* now.

Article B-7.3 - Publication

1. The Dean of the faculty will ensure the appropriate publication of these Regulations and any amendments to them.
2. The Teaching and Examination Regulations will be posted on the faculty website and deemed to be included in the course catalogue.

Article B-7.4 - Effective date

Section B of these Regulations enter into force with effect from 1 September 2022. Thus drawn up by the Dean of the Faculty of Science on 13 September 2022.

Appendix 1 List of components provided by the study programme

Component	Code	Study load (ECTS)	Semester	Teaching method	Assessment
Advanced Neural and Cognitive Modelling	5244ANCM6Y	6	1	L, PR, CP	Written
Advanced Topics in Computational Semantics	5314ATIC6Y	6	2	L, PR, CP	Written
Advanced Topics in Philosophy of Language	187413186Y	6	1	L, PR	Written, oral
Algorithmic Game Theory	5314ALGT6Y	6	1	L, PR	Written
Automated Planning	5314AUPL6Y	6	2	L, PR	Written
Basic Probability: Programming	53142BPC3Y	3	1	PR, CP	Written
Basic Probability: Theory	53141BPC3Y	3	1	PR	Written
Capita Selecta: Set Theory (not taught in 2022-2023)	5314CSET6Y	6	1	L, PR	Written
Category Theory	5314CATH8Y	8	1	L	Written
Causal Inference: Philosophical Theory and Modern Practice	187413216Y	6	1	L, PR	Written, oral
Cognition and Language Development	5244COLD6Y	6	1	L, PR	Written, oral
Computational Complexity	5314COCO6Y	6	2	L, PR	Written
Computational Dialogue Modelling	5314CODM6Y	6	1	L, PR	Written, oral
Computational Learning Theory, Logic and Knowledge Representation	5314CLTL6Y	6	1	L, PR	Written
Computational Social Choice	5314COS6Y	6	1	L, PR	Written
Data-Driven History of Ideas	187421216Y	6	2	L, PR	Written
Deep Learning 1	52041DEL6Y	6	1	L, CP	Written
Distributed Algorithms (VU)	52848DIA6Y	6	2	L, PR	Written
Dynamic Epistemic Logic	5314DYEL6Y	6	1	L, PR	Written
Foundations of Neural and Cognitive Modelling	5244FN6Y	6	1	PR, CP	Written, oral
Functional Programming	5314FUPR6Y	6	2	L, PR, CP	Written
Game Theory	5314GATH6Y	6	2	L	Written
How music works: music cognition	5244HMWM6Y	6	2	L, PR	Written
Information Theory	5314INTH6Y	6	1	L, PR	Written, oral
Interpretability and Explainability in AI	5204IEIA6Y	6	2	L, PR	Written
Inleiding Modale Logica (Introduction to Modal Logic)	5122INML6Y	6	1	L, PR	Written
Introduction to the Philosophy of Language	187413017Y	6	1	L, PR	Written
Knowledge Representation and Reasoning	5204KNRR6Y	6	2	L, PR	Written
Logic and Conversation	5314LOCO6Y	6	1	L	Written
Logic and Philosophy	187421086Y	6	1	L, PR	Written
Logic, Games and Automata	5314LOGA6Y	6	2	L, PR	Written
Logic, Language and Computation	5314LOLC3Y	3	1	L	Written
Logical Foundations of Quantum Mechanics	5314LFQM6Y	6	2	L, PR	Written
Logical Verification (VU)	52848LOV6Y	6	1	L, PR	Written
Machine Learning 1	52041MAL6Y	6	1	L	Written
Machine Learning Theory	5334MALT8Y	8	2	L	Written
Mathematical Proof Methods for Logic	5314MPMF6Y	6	1	L, PR	Written
Mathematical Structures in Logic	5314MASL6Y	6	2	L, PR	Written
Meaning, Reference and Modality	187413096Y	6	1	L, PR	Written
Model Theory	5314MOTH6Y	6	2	L, PR	Written
Natural Language Processing 1	52041NLP6Y	6	1	L, PR, CP	Written
Natural Language Processing 2	52042NLP6Y	6	2	L, CP	Written, oral
Ontology: Historical Perspectives	187415136Y	6	1	L, PR	Written
Philosophical Logic	5314PLLO6Y	6	1	L, PR	Written
Philosophy of Cognition	187413256Y	6	1	L, PR	Written
Philosophy of Mathematics	187413176Y	6	2	L, PR	Written, oral
Philosophy of Science	5354PHSC6Y	6	1	L	Written
Philosophy of Techno-Science	187421026Y	6	1	L, PR	Written, oral
Proof Theory	5314PRTH6Y	6	2	L, PR	Written
Protocol Validation (VU)	5284PRV6Y	6	1	L, PR, CP	Written
Quantum Computing	5334QUCO8Y	8	2	L	Written
Quantum Information Theory	5334QUIT8Y	8	2	L	Written

Rationality, Cognition and Reasoning	187413086Y	6	1	L, PR	Written, oral
Recursion Theory (not taught in 2022-2023)	5314RETH6Y	6	1	L, PR	Written
Research Project Master of Logic	53142RPL6Y	6	1&2	IC	Written
Rudiments of Axiomatic Set Theory	5314RAST6Y	6	1	L, PR	Written
Semantics and Cognition	5314SECO6Y	6	2	L, PR	Written, oral
Semantics and Philosophy	187421126Y	6	2	PR	Written, oral
Seminar Mathematical Logic	5314SEML3Y	3	2	PR	Oral
Structures for Semantics	187413106Y	6	2	L, PR	Written, oral
Syntax-Semantics Interface 1	184421116Y	6	1	L	Written
Syntax-Semantics Interface 2	184421126Y	6	2	L	Written
Term Rewriting Systems (VU)	52848TER6Y	6	2	L, PR	Written
Thesis Master of Logic	5314TML30Y	30	1 & 2	IC	Written, oral
Topics in Formal Epistemology	5314TIFE6Y	6	2	L, PR	Written
Topics in Modal Logic	5314TIML6Y	6	1	L	Written
Topology, Logic and Learning	5314TOLL6Y	6	2	L, PR	Written
Topos Theory (UU)	5334TOTH8Y	8	2	L	Written
Type Theory	5314TYTT6Y	6	2	L, PR	Written

L = Lectures, LS = Lab sessions, CP = Computer practical, PR = practical, IC = Individual coaching, GP = Group project