### Master's degree programme Artificial Intelligence

Appendices to the Teaching and Examination Regulations 2011-2012

## Appendix A Teaching outcomes of the degree programme (art. 1.3)

The degree programme is designed to:

- prepare for participation in the field of Artificial Intelligence
- impart specialized knowledge, skills and insight in the field of Artificial Intelligence and its applications at a high national and international academic level
- prepare for conducting academic research or designer in the field of Artificial Intelligence

## Appendix B Specializations of the degree programme (art. 2.2)

Students may choose none, one or two of the following specializations:

- a) specialization Autonomous Perceptive Systems
- b) specialization Multi-Agent Systems

## Appendix C Content of the degree programme (art. 2.3)

- 1. The **degree programme** consist of the following compulsory modules with a study load of 5 ECTS unless otherwise stated, with their related form of examination:
- Advanced Research Methods: research assignments, written paper, written exam
- Capita Selecta Artificial Intelligence and Cognitive Science: oral presentation, written paper
- Cognitive Robotics: computer assignments, written exam, presentation
- Machine Learning: implementation assignment, written exam
- Multi-Agent Systems: assignments, oral presentation
- Perception: research assignment, written exam
- Final Research project (45 ECTS): research project
- 2. The different **specializations** also contain the following compulsory modules with a study load of 5 ECTS, with their related form of examination:

#### **Autonomous Perceptive Systems**

- Handwriting Recognition: implementation assignments, oral presentation, paper
- Robotics: design assignment, written paper
- Sound Recognition: design assignment, implementation assignment, paper
- Pattern Recognition: written exam, laboratory reports, presentation

#### **Multi-Agent Systems**

- Arguing Agents: assignment, written exam
- Cognitive Modeling: research assignment, written paper
- Design of Multi-Agent Systems: implementation assignment, oral presentation, written exam
- Robotics: design assignment, written paper

## Appendix D Optional modules (art. 2.4)

- 1. With the approval of the Board of Examiners, a student may choose one or more of the following optional modules with a study load of 5 ECTS, with their related form of examination:
- Arguing Agents: assignment, written exam
- Auditory Biophysics: research assignment, oral presentation
- Cognitive engineering: design or research assignments, written paper, written exam
- Cognitive modeling basic principles and methods: assignments, research assignment, written paper
- Cognitive Modeling Complex behaviour: assignments, research assignment, written paper
- Computational Cognitive Neuroscience: written report, written exam, oral presentation
- Computational Discourse: written assignments, computer labs, oral presentation
- Design of Multi-Agent Systems: implementation assignment, oral presentation, written exam
- Dynamic Interactive Belief Revision: written exam
- Formal approaches to cognition: assignments, written exam
- Handwriting Recognition: implementation assignments, oral presentation, paper
- Language Modeling: oral presentation, research assignment, written paper
- Neuro-ergonomics: written paper
- Robotics: design assignment, written paper.
- Sound Recognition: design assignment, implementation assignment, paper
- User Models: design assignments, written paper
- 2. With the approval of the Board of Examiners, a student may also choose one or more of the following optional modules with a study load of 5 ECTS unless otherwise stated (see Ocasys for form of examination):
- Advanced Computer Graphics
- Advanced Web Technologies
- Automated Reasoning
- Computer Vision
- Consciousness and Action
- Dynamic Logic
- Embodied Minds
- Juridisch Kennismanagement
- Logics of Actions and Obligations
- Logics of Information Change
- Neural Networks
- Pattern Recognition
- Philosophy and the Neurosciences
- Programmeren in C++ (part 1, 2 and/or part 3: 8 EC maximum)
- Scientific visualization
- Self-organization, Cognition and Social Systems
- Semantic Web Technologies

# Appendix E Entry requirements and compulsory order of examinations (art. 3.2)

- Final Research project: Advanced Research Methods and at least 60 ECTS of degree programme

- Robotics: Cognitive Robotics

## Appendix F Admission to the degree programme (art. 4.1.1 + art. 4.2)

- 1. Students in possession of a Dutch or foreign certificate of higher education that indicates that they have the following knowledge and skills shall be admitted to the degree programme:
- knowledge of and insight in the subject of Knowledge Systems
- knowledge of and insight in the subject of Autonomous Systems
- knowledge of and insight in the subject of Mathematics, notably discrete and continuous mathematics
- knowledge of and insight in the subject of Statistics
- knowledge of, insight in and practical skills in the subject of Computer Science, notably programming, data structures and search techniques
- knowledge of and insight in the subject of Logics, notably set theory, predicate logic and modal logic
- 2. The holder of a certificate from the Bachelor's degree programme "Artificial Intelligence" of any university in the Netherlands is expected to have the knowledge and skills listed in Article 4.1.1 and is admitted to the degree programme on that basis.

## Appendix G Application deadlines for admission (art. 4.5)

Deadline of Application	Non-EU students	EU students
Nanoscience	February 1st	February 1st
Behavioural and Cognitive Neurosciences	February 1st	June 1st
Biomolecular Sciences (topprogramme)	February 1st	April 15 <sup>th</sup>
Evolutionary Biology (topprogramme)	February 1st	February 1st
Artificial Intelligence	April 15th and	June 1st and December
(admission dates for semester 1 and 2)	October 15th	1st
Human-Machine Communication	April 15th and	June 1st and December
(admission dates for semester 1 and 2)	October 15th	1st
Remaining FMNS Masters	April 15 <sup>th</sup>	June 1st