Education- and examination regulations Master's programme Artificial Intelligence 2013-2014

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Part 1  Master's Degree Programmes in General

Paragraph 1  General provisions

Article 1.1  Regulations
1 The present education and examination regulations apply to the initial master programmes that are offered by the faculty and describe the present procedures, rights and obligations with respect to master's degree programmes of the faculty, interim examinations and examinations. Part 1 of these regulations contains the provisions applicable to all master's degree programmes; Part 2 includes specific provisions for each individual degree programme.
2 The education and examination regulations are drawn up or amended by the dean after having been advised thereon by the education committees and after having obtained the approval of the 'Facultaire Gezamenlijke Vergadering' (Faculties General Meeting).

Article 1.2  Definitions
1. The terms used in these regulations which are also used in either the Structure Regulations of the Radboud University Nijmegen, hereinafter the 'Structure Regulations', or the Higher Education and Research Act, hereinafter 'the Act' will have the same meaning as these terms have in the Structure Regulations and the Act respectively.
2. Further to the terms mentioned under part 1, and for the purpose of these regulations:
   - EC: European Credits: (EC) is the course load entity in accordance with the European Credit Transfer System, in which 1 EC is equivalent to 28 hours of study.
   - Blackboard: the digital learning environment of the institution.

Article 1.3  The degree programmes
1. The faculty offers the following master's degree programmes based on a course load of 60 ECs:
   a. Anthropology and Development Studies;
   b. Communication Science;
   c. Educational Science;
   d. Pedagogical Science;
   e. Psychology;
   f. Sociology.
2. The faculty offers the following master's degree programmes based on a course load of 120 ECs:
   a. Artificial Intelligence;
   b. Behavioural Science (research master);
   c. Cognitive Neuroscience (research master);
   d. Social and Cultural Science (research master).

Article 1.4  General programme exit qualifications
1. The purpose of the programmes is for students to:
   a. acquire knowledge, understanding and skills in the relevant area;
   b. be schooled academically; and
   c. prepare for further academic programmes or their future careers.
2. Students who have obtained a degree in one of the bachelor programmes referred to in article 1.3 pursuant to article 7.10a, first paragraph of the Act will be unconditionally admitted to at least one of the master programmes of the University.

Paragraph 2  Structure of the degree programmes

Article 2.1  Structure of the degree programmes
All programmes, listed in article 1.3 of these regulations will be exclusively offered as full time programmes.
Paragraph 3  Language used in the degree programmes

Article 3.1  Language used in the degree programmes
1. The programmes listed below will in principle be taught in the Dutch language:
   - the master's degree programmes:
     - Communication Science;
     - Pedagogical Science;
     - Educational Science;
     - Psychology;
     - Sociology.
2. The programmes listed below will in principle be taught in the English language:
   - the master's degree programmes:
     - Anthropology and Development Studies;
     - Artificial Intelligence;
     - Behavioural Science (research master);
     - Cognitive Neuroscience (research master);
     - Social Cultural Science (research master).
3. The English language could be used for components of a degree programme if the nature of that
   programme or the origin of either the students or the lecturers should give rise to this or if this should be
   required in preparation of residence abroad in the context of a degree programme.
4. Interim examinations and examinations will take place in the language in which the degree programme is
   offered, unless otherwise provided in the applicable programme details or unless decided otherwise by the
   examination board.

Paragraph 4  Admission requirements relating to previous education

Article 4.1  Admission requirements
Anyone who meets the admission requirements with respect to previous qualifications as these are stipulated
under or pursuant to the Act will be admitted to the appropriate degree programmes.

Article 4.2  Alternative requirements for deficiencies in previous qualifications
Deficiencies with respect to previous qualifications as referred to in the specific part of these regulations
(Part 2) will have to be remedied by taking tests on the 'vwo' (pre-university education) final exam level in
the subjects or components of the programme to be specified. The examination board will be responsible for
administering and assessing the test results.

Paragraph 5  Examinations and interim examinations

Article 5.1  The examinations
The master programme will have been completed after the master examination has been passed.

Article 5.2  Structure and requirements for of the interim examinations
1. Each component of the degree programme will be completed by an interim examination. Interim
   examinations will in principle be taken either in writing or orally. Apart from written or oral examinations
   practical or computer assignments, take home examinations, internships, presentations or a combination
   of any of these variants is possible.
2. For components that also comprise a practical and/or tutorial, attendance levels and levels of active
   participation may be included in the assessment.
3. If possible attendance to lectures may be compulsory.
4. In principle, oral interim examinations are administered in public and these examinations consist of an
   individual test in which, in principle, not more than one person is tested at the same time.
5. Oral interim examinations are administered at least in the presence of a second examiner or an observer
   appointed by the examination board. Otherwise the interim examination is to be recorded. This provision
does not refer to presentations and practical assignments.
6. The examination board may allow students with an impairment to take the interim examinations in a form adapted to their individual impairment. Prior to taking a decision in this matter, the examination board may seek expert advice.

7. Prior to the commencement of an academic year, information will be provided for each individual component on the way in which the interim examinations will be administered.

8. All requirements for interim examinations will be known to the students in question before or at the start of the relevant component.

9. At the student's substantiated request, the Examination Board may allow an interim examination to be taken in another form than aforementioned.

10. Students must register for an interim examination in good time and in conformity with the provisions laid down for that purpose by or on behalf of the examination board.

**Article 5.3 Frequency of interim exams**

1. Unless provided otherwise in the specific part of the education and examination regulations (Part 2), interim examinations are administered twice per year.

2. Notwithstanding the stipulation in the First paragraph, there will be only one opportunity to take an interim examination for a course that was not taught in that particular academic year.

3. A resit of an interim examination passed cannot take place without explicit permission of the relevant examination board.

4. If a resit of an interim examination takes place, the highest mark will determine the result obtained.

**Article 5.4 Validity term of interim examinations**

1. The validity term of any interim examination that has been passed is, in principle, indefinite.

2. Notwithstanding the provisions in the first paragraph of the present article it may be indicated in the specific part of the education and examination regulations which components in the degree programme will have a restricted validity term.

**Article 5.5 Determination and publication of results**

1. Unless provided otherwise in the specific part of the Education and Examination Regulations, the result of an interim examination will be expressed in full or half points.

2. Notwithstanding the provisions of the first paragraph, the results of an interim examination will not be set at 5.5.

3. If the results of an interim examination equal or amount to more than 6.0 points, the interim examination is deemed to have been passed. If the results of the interim examination equal 5.0 or amount to fewer than 5.0 points, the interim examination is deemed not to have been passed.

4. The examiner will determine the results of a written interim examination as soon as possible and provide the student administration office with the data required for the publication of the results. In case of an oral interim examination the examiner will determine the result immediately or no longer than five days after the interim examination was administered; in case of written interim examinations no later than fifteen working days after the day the examination was administered. This regulation also applies to written examinations divided in parts. For open question examinations with more than 100 participants a grading period of twenty working days applies. With respect to written assignments /papers the rule of assessment within fifteen working days applies. Where there are more than 100 papers to be marked a period of twenty working days shall apply.

5. The grading period is mentioned at the examination form.

6. A minimum period of ten working days must be upheld between the date of the announcement of the result and the date of the resit.

7. In special circumstances the examination board may – in consultation with the examiner - extend the period referred to in the sixth paragraph of the present article or, as the case may be, reduce this period.

8. When the results are published, the student will be informed about the right to inspect his or her marked work as referred to in article 5.7 and about the possibility to appeal at the Examinations Appeals Board within the applicable appeal period.

**Article 5.6 Fraud**

1. Fraud is not permitted.
2. During a written multiple choice and/or open questions exam this fraud may consist of consultation between examinees, cheating or using cheat sheets.

3. During all other types of exams this fraud may consist of the fabrication and/or falsification of data and/or plagiarism. Fabrication is defined as devising, inventing, or concocting research data. Falsification is defined as manipulating or falsely presenting research data and findings, for instance by removing data that can negatively influence the research findings. Plagiarism is defined as copying texts, thoughts, or argumentation of others and letting this pass as one's own work.

4. Any instance of suspected fraud will be acted upon according to the rules and guidelines of the Examining Board.

Article 5.7 Rules and guidelines examination board
1. The examination board is responsible for, more particularly, safeguarding the quality of the interim examinations and the examinations.

2. The examination board lays down the rules with respect to the proper state of affairs during the interim examinations and the examinations and with respect to any measures that should be effected in this context.

3. The examination board may provide examiners with guidelines and directions with respect to the assessment of the student who takes the interim examination and with respect to determining the results of the interim examination. The results are determined by the examiner in compliance with these regulations.

4. The examination board is authorized, in the event of serious unfairness, to deviate from the education and examination regulations in individual cases.

5. The rules and guidelines of the Examination Board can be found in appendix 1.

Article 5.8 The right to inspect the work marked
1. For a period of a minimum of twenty working days following the publication of the results of a written interim examination the student will be entitled to inspect, under supervision of a docent, in the questions and the work marked as well as receive an explanation of the formal assessment criteria.

2. Notwithstanding the first and second paragraph of the present article, the examiner board may decide that inspection will take place for all students at the same time, on a date and at a time and place to be set in advance by the examination board. If a student should not be able to attend this inspection because of demonstrable circumstances beyond his or her control a separate inspection can be arranged, upon his or her request, preferably within the period of time referred to in the first paragraph of the present article.

3. In all events inspection will take place no later than five working days before the resit of an interim examination is administered.

Article 5.9 Retention periods
The examiner will store the interim examinations and other assignments that count towards the results, such as project reports and other papers, at least two years following the date the interim examination was administered. Final papers for the master's degree programme will have to be kept for a period of at least seven years.

Article 5.10 Exemption
The examination board may exempt a student, upon his or her request and having heard the examiner involved, either partially or fully, from an interim examination if this student:

a. has either completed a component of a university or higher professional programme which is similar both as regards contents and as regards level; or

b. demonstrates to provide of adequate knowledge and skills as regards the subject in question as a result of relevant work experience or professional experience.

Article 5.11 Determination of examination results
1. The examination board will determine the results of the examination as soon as the student has passed the interim examinations either of the components of the degree programme in question or of the phase of the degree programme in question and has submitted proof thereof.
2. Prior to determining the results of the examination, the examination board itself may administer an examination of the student's knowledge with respect to one or more components or aspects of the degree programme.

**Article 5.12 Degree**

1. The student who has passed the examination of the master's degree programme will be awarded the Master of Science (MSc) degree.
2. The student who is entitled to a degree certificate may request the examination board, in compliance with the rules adopted by the examination board to that purpose, not to award that certificate as yet.
3. Unless the examination board, after having been requested to do so, has decided to postpone awarding the certificate, the degree certificate will be awarded.

**Article 5.13 Judicium**

1. The following judicia are awarded for the result of the Master's examination; note that for each judicium a minimum grade of 6 is required for all parts. In cases where more than one judicium is applicable, the highest judicium is valid.
   a. Passed: a grade of 6.0 or higher for the Master's thesis, and an average grade point of 6.0 or higher for all other interim examinations.
   b. Bene meritum: a grade of 7.5 or higher for the Master's thesis, and an average grade point of 7.5 or higher for all other interim examinations.
   c. Cum laude: a grade of 8.0 or higher for the Master's thesis, and an average grade point of 8.0 or higher for all other interim examinations.
   d. Summa cum laude: a grade of 9.0 or higher for the Master's thesis, and an average grade point of 9.0 or higher for all other interim examinations.
2. Exemptions are not valid in determining the judicium.
3. A distinction will not be awarded if
   a. the number of exemptions is equal to or in excess of 60 EC's;
   b. there have been two or more resits for one or more interim examinations;
   c. a student was caught committing fraud and the examination board has documented this in the student's file.

**Article 5.14 Sequence of degree programme and interim examinations**

1. A student who has not yet been awarded the bachelor degree can take part in the education of the connecting master's degree programme, in as far as the educational capacity allows.
2. The students referred to in the first paragraph of the present article can only take part in interim examinations of the master's degree programme if they have been awarded the bachelor degree.
3. The programme-specific part of these regulations may contain further requirements regarding the sequence of programme components and interim examinations.

**Paragraph 6 Student progress, student counselling and course advice**

**Article 6.1 Study progress and Student counselling**

1. The dean will be responsible for the registration of the course results in such a way that every student will obtain an overview of the results registered in the system at that moment.
2. The dean will be responsible for providing proper student counselling.

**Paragraph 7 Miscellaneous stipulations**

**Article 7.1 Honours Programme and Honours Academy**

1. Students who excel in their degree programme may participate in the interdisciplinary Honours Programme of the Radboud Honours Academy.
2. The contents of the programmes and the admission criteria for the Radboud Honours Academy have been determined and laid down by the Board of the Radboud Honours Academy in the regulations for the interdisciplinary Honours Programme (‘Reglement betreffende het interdisciplinaire Honours Programma’).
Article 7.2 Communication with students
Notices that are intended for all or large number of students of the programme are placed on the student portal of the programme's tab. Notices that are intended for students enrolled in a specific course are placed on the Blackboard web page of the relevant course. Notices that are intended for individual students are sent to the email addresses that the university has assigned to each student (studentname@student.ru.nl). In special cases communication will take place by regular mail. Letters sent by regular mail will be sent to the address the student has supplied as a mail address.

Article 7.3 Code of conduct
The faculty has instituted a Code of Conduct that both students and employees are expected to follow. This Code of Conduct can be found in Appendix 4 of these regulations.
Part 2  
Programme-specific regulations

Paragraph 8  
The Master's programme in Artificial Intelligence

Article 8.1  
Applicability of the regulations

1. The provisions in the general faculty part of these regulations (part 1) apply to the Master's degree programme in Artificial Intelligence (hereinafter called 'the programme') insofar as the provisions in this part (part 2) of the regulations do not stipulate otherwise.

2. The provisions in this part of the regulations apply to all students who were first enrolled in, or admitted to the education of, the programme in the academic year 2013-2014.

Article 8.2  
Specific final qualifications

1. Without prejudice to the provisions in article 1.4, the aims of the programme are:
   a. to impart to students advanced knowledge, skills and insight in the domain of artificial intelligence;
   b. to impart to students an advanced university education;
   c. to impart that which is described in par. 1 sub a and b, at a level that is attuned to the Bachelor's degree programme in artificial intelligence;
   d. to educate students in such a way that after completing the programme they are able to perform independent research in the domain of artificial intelligence.

2. These aims are specified further in appendix 2.

3. Specific aims for each programme component are included in the course descriptions of the most recent study guide.

Article 8.3  
Language

1. In accordance with the relevant stipulations in the general faculty part of these regulations, the programme is offered in English and the interim and final examinations are administered in English.

2. An adequate command of English is required for participation in the programme and interim examinations of the programme. This requirement is met if the student can submit:
   - a Dutch pre-university education (VWO) diploma; or
   - an Abitur diploma taken at a German-language institute for pre-university education; or
   - a secondary education diploma of an English-language programme in the Netherlands or abroad; or
   - a Higher Vocational Education (HBO) or polytechnic diploma; or
   - one of the following language certificates:
     a. a Test of English as a Foreign Language (TOEFL) certificate stating a minimum score of 550 (paper test), 213 (computer test), or 79 (internet-based test);
     b. an International English Language Testing System (IELTS) certificate stating a minimum score of 6.0;
     c. a Cambridge Certificate of Advanced English or a Cambridge Certificate of Proficiency in English stating a minimum score of C.

Article 8.4  
Scientific thesis

1. The student is obliged to write a scientific thesis The master thesis is an individual effort.

2. In individual cases the Board of Examiners can decide to deviate from the regulation in article 8.8.1.

3. The study load of this programme component is 18 EC.

Article 8.5  
Composition of the programme

1. The Master's degree programme comprises the following components and study load (in ECs; 120 in total):
   (N.B.: Course name details may be subject to change)
   a. Compulsory general core courses:
      - trends in artificial intelligence .................................................................................................. 6
      - internship .............................................................................................................................. 30
      - Master's thesis ..................................................................................................................... 18
   b. Compulsory courses in one of the two graduation tracks of the programme:
b1 graduation track Cognitive artificial intelligence:
- cognition and complexity ................................................................. 6
- bayesian and decision models in AI ................................................ 6
- research methods OR advances in HCI ........................................ 6
- constrained elective components ............................................. 36
- free elective components ................................................................ 12

b2 graduation track Brain-computer interfacing:
- brain reading .................................................................................... 6
- BCI practical course ......................................................................... 6
- research methods OR machine learning in practice .................... 6
- constrained elective components ............................................. 36
- free elective components ................................................................ 12

2. A detailed description of all components mentioned in par. 1 is included in the programme's study guide.
3. No components that form part of a required Bachelor's examination may be included in the Master's examination as well. Should such a component be compulsory within the Master's programme, the Board of Examiners will appoint a substitute component. This also applies to components of a required Bachelor's examination that, in the opinion of the Board of Examiners, shows too much overlap with prospective components of the Master's examination.
4. The constrained elective components mentioned in par. 1 sub b and c should be chosen from the list of constrained elective components for the relevant specialisation, which is publicized on the Blackboard of the degree programme before the start of the academic year.
5. The free elective components mentioned in par. 1 sub b can be chosen freely, on the condition that the chosen component has an adequate level and is sufficiently relevant to the content of the programme. Assessments of level and relevance are made at the discretion of the Board of Examiners.
6. Notwithstanding the provision in the first paragraph, a student may, in accordance with art. 7 par. 3 sub 4 and 5 of the Act, submit a proposal to the Board of Examiners for a free variant of the Master's examination in Artificial Intelligence.

Paragraph 9  Interim and final examinations of the programme

Article 9.1  Sequence of interim examinations
1. The internship can only be started after a number of components equal to or exceeding 60 ECs has been completed in the programme. The Master's thesis can only be started after the internship has been started.
2. Any particular component may have specific prior knowledge criteria, as specified in the programme’s study guide.

Article 9.2  Restricted period of validity of achieved study results
In derogation of the provision in article 5.4 par. 2 the Board of Examiners may, with respect to a component that has been completed more than six years previously, and if there are valid substantive or educational reasons to do so, impose a supplementing or substitute interim examination that must be passed before the student is admitted to the final examination. A supplementary or replacement interim examination of this sort does not yield extra ECs.

Article 9.3  Participation in interim examinations
Anyone studying for the Master’s examination who does not pass some component in some academic year can retake the interim examination the following year, but this second examination will be based on the content of the component of that same year, or on the content of a substitute component designated by the Board of Examiners.

Article 9.4  Exemption
1. At the request of a student, and after having consulted the examiner in question, the Board of Examiners may exempt the student from taking an interim examination (or a part thereof) for a theoretical examination component if, before the first assessment date of the component for which exemption is requested, the student either:
- submits proof of having passed a component of another academic programme in the Netherlands or abroad that is equivalent to the component in question with respect to content, level and time expenditure;
- submits proof of performed activities that correspond to the component in question with respect to content, level and time expenditure.

2. The Board of Examiners may, at the individual written request of a student in possession of documentation as described in par. 1, replace components of the degree programme by components of another academic programme in the Netherlands or abroad, or of a higher education programme in the Netherlands, provided that this replacement is approved before the date of the first interim examination of the component for which replacement is requested.

Article 9.5 Standard exemptions
The Board of Examiners does not grant any standard exemptions based on previously taken educational programmes.

Paragraph 10 Admission requirements of the programme

Article 10.1 Connecting bachelor degree programme
1. The programme is the connecting Master’s degree programme, as meant in article 7.30a of the Act, to the Bachelor’s degree programme in Artificial Intelligence at Radboud University Nijmegen.
2. Students who have passed the final examination of the Bachelor's programme mentioned in par. 1 are unconditionally admitted to the programme.

Article 10.2 Other previous educational programmes
1. Without prejudice to the relevant provisions in the Act, admission to the programme will be granted to:
   - those who have passed the final examination of the Bachelor’s degree programme in Computer Science with a minor ‘transition package Artificial Intelligence' at Radboud University Nijmegen;
   - those who have passed the final examination of the Bachelor’s degree programme in information science with a minor ‘transition package Artificial Intelligence' at Radboud University Nijmegen;
   - those who have passed the final examination of the Bachelor's programme in Artificial Intelligence at another Dutch university;
   - those who are in possession of a certificate of admission issued by the institution’s Executive Board for the academic year in question, based on the possession of a testimonial that is at least equivalent to one of the testimonials stipulated earlier in this paragraph.
2. Admission to the programme will also be granted to those who have, to the satisfaction of the Board of Examiners, shown to be adequately equipped to take the programme, and have established proof of adequate command of English as stipulated in article 8.3.

Article 10.3 Intake dates
There are two intake dates for the degree programme, namely September 1 and February 1.

Paragraph 11 Final stipulations

Article 11.1 Hardship clause
In individual cases not covered by these regulations or insufficiently covered by these regulations, the dean will decide.

Article 11.2 Amendments
1. Any amendments made to these regulations will not take effect in the present academic year, unless the interests of the students are not disproportionally compromised thereby.
2. Moreover, an amendment may not affect any other decision of the Examination Board on the basis of these regulations if this is to the detriment of the student.

Article 11.3 Publication
1. The dean will be responsible for suitable publication of these regulations, of the rules and guidelines that have been set by the examination board and of possible amendments of the regulations mentioned.
2. Each interested party may consult the EER on the faculty’s website.

Article 11.4 Entering into effect
These regulations will enter into effect on September 2, 2013.
Any education and examination regulations laid down previously for the degree programmes referred to will cease to apply from that date onwards.
These Education and Examination Regulations are a translation of the Dutch original version (Onderwijs- en examenregeling masteropleiding Artificial Intelligence 2013-2014) as confirmed by the dean on September 2, 2013, which, should any doubts arise concerning the interpretation of the English version, is the legally valid text.
Appendices EER MSc Artificial Intelligence 2013-2014

Appendix 1 Regulations and Guidelines Board of Examiners Artificial Intelligence

Article 1 Preamble
1. The following Regulations and Guidelines (hereinafter called ‘R&G’) concern the functioning of the Board of Examiners for the Bachelor’s degree programme and the Master’s degree programme in Artificial Intelligence, as well as the proper course of events relating to the final examinations of these degree programmes and the interim examinations of their constituting components.
2. The R&G serve to implement the tasks entrusted to the Board of Examiners by the Higher Education and Scientific Research Act, as indicated in article 5.6 of the Educational and Examination Regulations (EER) for these degree programmes.
3. Where stipulations in these R&G conflict with stipulations in the EER for the same academic year, the latter apply.

Article 2 Definitions
If the terms used in these R&G also occur in regulations pursuant to the Structure Regulation, they have the same meaning as intended in those regulations. In addition, the following definitions apply:
- faculty: the faculty of social sciences at Radboud University Nijmegen;
- Board of Examiners: the examining board of the Bachelor degree programme and the Master degree programme in Artificial Intelligence;
- education and examination regulations: the education and examination regulations of the Bachelor degree programme and/or the Master degree programme in Artificial Intelligence, hereinafter called the EER;
- examiner: the person designated by the Board of Examiners to administer interim examinations and establish their result;
- examination components: the courses that have to be taken and their interim examination passed in order to pass for either a propaedeutic, bachelor or master final examination, as stipulated in the EER;
- interim examination: an examination testing the knowledge, understanding and skills of the candidate in relation to a certain unit of study as well as an assessment of the results of that test by at least one examiner designated by the Board of Examiners to that end; by 'interim examination’ any type of assessment is meant in these R&G;
- examinee: the person taking, or preparing to take, either the propaedeutic, bachelor or master final examination, and has been registered as such.

Article 3 Applicability of the regulations
1. These R&G apply to the interim and final examinations of the Bachelor’s degree programme and the Master’s degree programme in Artificial Intelligence (hereinafter called: the programmes). The programmes are offered by the educational institute for Psychology and Artificial Intelligence (hereinafter called: the educational institute) within the Faculty of Social Sciences of the Radboud University Nijmegen (hereinafter respectively called: the faculty and the university).
2. These R&G apply to all examinees who have been enrolled in the academic year 2013-2014 as a student in the Bachelor’s degree programme or the Master’s degree programme in Artificial Intelligence.
3. The Board of Examiners may delegate its tasks as stipulated in these R&G to the examiner(s).

Article 4 Composition and procedures of the Board of Examiners
1. The faculty dean establishes the number of members of the Board of Examiners. In the current academic year, the Board of Examiners consists of five staff members who are charged with providing the education of the programmes for an extent of at least 0.3 fte. In addition, the student counsellor is an advisory member of the Board of Examiners.
2. The chairperson and the other members of the Board of Examiners are appointed for a period of four years by the faculty dean, after consultation with the current Board of Examiners.
3. The Board of Examiners appoints one of its members as vice chairperson, who substitutes for the chairperson in case of his or her absence.
4. The Board of Examiners appoints either one of its members or someone else as secretary, who is charged among other things with preparing its meetings and implementing its decisions.
5. The chairperson and the secretary are charged with the daily affairs of the Board of Examiners.
6. The Board of Examiners grants the chairperson and the secretary power to sign documents, together or separately, on behalf of the Board of Examiners.
7. The Board of Examiners may establish more specified rules of Procedure.
8. The Board of Examiners shall report yearly on its activities, and shall provide the report in writing to the dean.

Article 5 Administering the interim examinations
1. The Board of Examiners appoints examiners for administering the interim examinations of the examination components as intended in article 8.5 of the EER, and establishing their results.
2. The examiners as intended in par. 1 shall, as much as possible, use an explicit grading schemes in grading the interim examinations, and assess the interim examinations in such a way that the scores and the reasons for them are understandable to the student at an inspection as intended in article 17 of these R&G.
3. The examiners as intended in par. 1 shall, at the request of the Board of Examiners and for the purpose of verification, make the assessment materials for one or more interim examinations available to the Board, and report on the way the materials have been constructed. By assessment materials is meant: the test questions, the grading schemes, as well as any other material relevant to the assessment.
4. The Board of Examiners establishes whether an examinee meets the requirements for admission to the final examination or any interim examinations.

Article 6 Interim examination certificate
A separate grade certificate for an interim examination will be provided by the examiner in question to the examinee who requires such a certificate for compelling reasons.

Article 7 Programme certificate and grade transcript
1. To show that the final examination has been successfully passed, the Board of Examiners issues a certificate. The certificate is signed by at least two examiners who have been appointed to that end by the Board of Examiners. Presentation of the certificate is made in public, unless the Board of Examiners has decided otherwise in special cases.
2. The components of the final examination and their grades are indicated either on the reverse of the certificate, or on an appendix forming part of the certificate. In addition, names and grades are indicated of components that do not form part of the final examination and in which the examinee has been assessed, at his or her request, before the result of the final examination has been established, provided that those components have been passed successfully.
3. The certificate is dated as the date on which the last examination component has been passed.

Article 8 Registration for programme components (courses)
1. Students are required to register for a component through Osiris at least five workdays before its starting date. When the enrolment period for the component has expired, participation is only possible after explicit permission of the examiner.
2. If for technical reasons registration for a component through Osiris is unfeasible, students must register as soon as possible by email to the faculty’s student administration (OSP).
3. Notwithstanding the stipulations in par. 1 and 2, registrations for components provided by other degree programmes are subject to the prevailing regulations at that other programme.

Article 9 Registration for interim examinations
1. Registration for a component is also a registration for its interim examination and/or all parts thereof, as well as a registration for the resit and/or partial resits.
2. Notwithstanding the stipulations in par. 1, registrations for interim examinations of components provided by other degree programmes are subject to the prevailing regulations at that other programme.

Article 10 Place, date and time of written interim examinations
1. Without prejudice to the provisions in the EER, the Board of Examiners establishes place, date and time of the written interim examinations.
2. The Board of Examiners takes care that place, date and time as intended in par. 1 are announced at least three weeks in advance on the website http://schedule.ru.nl, as well as through the digital learning
environment Blackboard of the course in question. No changes in date or time shall occur after announcement, unless in case of force majeure.

3. A deviation from the stipulations in par. 1 and 2 can only take place if there is agreement between the students and the examiner concerned.

Article 11 Registration for final examinations

1. Students do not have to register separately for the propaedeutic examination.
2. For the Bachelor’s and Master’s examination, students must register at the Examination Office of the university. Registration must take place at least 31 days before the designated day of presentation of the certificate.
3. Before registering at the Examination Office, the examinee shall, through the secretariat of the programme, file a request with the Board of Examiners to establish the result of either the Bachelor’s or the Master’s examination.
4. A standard procedure is used to apply for a Bachelor’s or a Master’s examination. This procedure is announced through Blackboard at the beginning of each academic year.

Article 12 Participation in interim examinations

1. An examinee has participated in an interim examination occasion for a component if he or she was legally present at that occasion.
2. Notwithstanding the stipulations in par. 1, for components provided by other degree programmes the prevailing regulations at that other programme with respect to when someone has participated in an interim examination occasion apply.
3. The number of participations in interim examination occasions may be of influence on the judicium.

Article 13 Order during written interim examination occasions

1. The examiner may appoint one or more supervisors to assist or represent him or her during the interim examination. If and when the examiner is not present in the examination room, the supervisor must be able to contact him or her by telephone.
2. When participating in a written interim examination, the examinee shall, on request, identify him- or herself by a valid student card or by a valid enrolment certificate plus a photo-bearing identification document.
3. The examinee is obliged to follow instructions of the supervisor(s). Failure to do so may be designated as fraud by the Board of Examiners.
4. It is forbidden to take any books, readers, laptops, portable telephones etc. into the room where the interim examination is held, unless explicitly allowed by the examiner.
5. Eating in the examination room is not allowed. Drinking in the examination room is allowed subject to reasonable constraints.
6. The examinee who appears more than half an hour after the officially designated starting time of the interim examination is excluded from participation in it.
7. It is not permitted to leave the room where the interim examination is taken within half an hour after the officially designated starting time. After that period the examinee is allowed to leave the room for visiting the toilet, if accompanied by a second supervisor who is present in the room or can be called within a reasonable time span.
8. When leaving the room where the interim examination is held, all supplied examination documents have to be handed in or left behind in their entirety.
9. The examinee is required to refrain from disturbing any of the attendees in any way, both during the examination and when entering or leaving the room.
10. An examinee who does not meet the requirements imposed by or pursuant to par. 1 through 9 may be excluded from further participation in the interim examination by the examiner. The supervisor in attendance is authorized to act on behalf of the examiner in this matter.
11. The examinee will be allowed sufficient time (known in advance), in a reasonably suitable room, to properly take the interim examination.
12. Notwithstanding the stipulations in the previous paragraphs, the order during interim examinations of components provided by other degree programmes are subject to the prevailing regulations at that other programme.
Article 14 Fraud
1. For the purpose of this document, fraud means: any action or omission by an examinee that makes it fully or partially impossible to correctly assess the knowledge, insight and skills of examinees.
2. The examiner or supervisor shall make a written report on any suspicion of fraud and shall notify the Board of Examiners in writing, accompanied by this report. Before any disciplinary measures are taken, the examinee in question is given the opportunity to be heard by two or more members of the Board of Examiners.
3. If the Board of Examiners, having heard the examinee and the examiner, establishes that fraud has occurred, it may declare the interim examination to be void, exclude the examinee from participation in the next interim examination occasion for the component in question, as well as impose other sanctions that the nature and seriousness of the facts give rise to. In case of aggravated fraud the Board of Examiners, after consultation with the faculty dean, may propose to the Executive Board of the university to terminate the enrolment of the examinee in question.
4. Par. 2 is equally applicable in case of fraud in written assignments, theses and other written or digital products.

Article 15 Plagiarism
1. For the purpose of this document, plagiarism means: copying, by an examinee, of texts, results, thoughts, arguments or any other intellectual property of one or more other persons, and presenting them as being conceived by him-or herself.
2. In order to find instances of plagiarism, an examiner may use the ant-plagiarism programme Ephorus, or any other tool that has been approved by the Board of Examiners.
3. If the examiner has established a case of plagiarism, the Board of Examiners decides which sanctions are imposed upon the examinee.
4. Depending on the seriousness and the scope of the established plagiarism, the Board of Examiners may impose the same sanctions as in other cases of fraud, as stipulated in article 14 par. 2 and 3 of these R&G.

Article 16 Registration of results
1. The result of an interim examination is registered by the Educational Service Point of the faculty (OSP, Montessorilaan 3, A.01.07) and put at the disposition of the Board of Examiners.
2. The Examination Office of the university takes care of registering the results of the final examinations. This office also registers which certificates have been handed out to an examinee.
3. The examinee may file an appeal against the result of the interim or final examination within six weeks after the result has been published, in accordance with the procedure as stipulated in article 18 of these R&G.

Article 17 Inspection and review of interim examinations
1. The provisions in this article do not invalidate the provisions in article 5.7 of the EER, but serve as additions to or implementations thereof.
2. Concurrent with the results of an interim examination, the examiner of an interim examination will announce on Blackboard when and where the written examination may be inspected, and how any registration for the inspection and the inspection itself are arranged.
3. The examiner will appoint the time and date of the inspection, taking into account the conditions upon them as stipulated in article 5.7 of the EER.
4. At the inspection, the examinee, at his or her request and under supervision of a staff member, has a right to inspect the examination questions and his or her own assessed answers, as well as receive an explanation of the formal assessment criteria.
5. At the inspection, at his or her request and at cost price, the examinee will be provided with a copy of the assessed work (the answers, but not the questions). This facility does not apply in the case of multiple choice examinations.
6. The time and place of a possible collective review shall be announced on Blackboard.
7. The examiner decides on how the collective review is arranged.
Article 18  Objection procedure regarding the assessment of interim examinations

1. An examinee who disagrees with the assessment of an interim examination may present this objection to the examiner during or after the inspection or review.

2. If and when the student has not reached an agreement with the examiner about the assessment, he or she can file an appeal with the Board of Appeals for Examinations. The appeal has to be filed within a period of six weeks after the announcement of the examination results. If the examiner has not reacted to the student’s objection within that period, the student can file a so-called pro forma appeal with the Board of Appeals for Examinations, in which he/she requests postponement of the appeal.

Article 19  Complaints procedure

1. Complaints and appeals pertaining to the course of events at an interim examination can be filed with the Board of Examiners.

2. To be submitted complaints and appeals must meet the following format requirements:
   a. a written and signed letter (no email);
   b. on behalf of one individual (no groupwise letter);
   c. containing a personal argumentation (no standard letter).

3. Complaints and appeals will only be considered if they meet the requirements as stipulated in par. 2.

Article 20  Amendments of these R&G

Amendments of these R&G pertaining to the current academic year shall only be implemented if this is in all fairness not to the detriment of the examinees.

Appendix 2  Further specification of objectives and final qualifications of the programme

For both BSc/MSc-programmes, the integration of knowledge and skills, as well as imparting a critical and academic stance are central goals. The intended learning outcomes reflect the Nijmegen AI profile. They can be operationalized in terms of five AI learning objectives that fully adhere to the five Dublin descriptors, which describe the level of bachelor and master’s programmes.

The five AI learning objectives are implemented through ten final qualifications for the bachelor and eleven for the master. Both the learning objectives and final qualifications fit the description of the KION domain-specific frame of reference (KION-FoR), while doing justice to the AI profile in Nijmegen. The final qualifications form an excellent means to enforce the five objectives on the one hand, and to provide solid requirements for the implementation of the educational learning environment on the other hand. As illustrated in Fig. 1, it is through the specification, assessment and evaluation of the learning goals of each individual course that the BSc/MSc-programmes implement a high-quality educational learning environment, which adheres to academic standards as well as to the KION-FoR.

![Figure 1. Implementation scheme for the intended learning outcomes of the BSc/MSc-programmes: profile, objectives, final qualifications and course goals.](image)

Objectives for the MSc-programme

MSc students are trained at a level of academic and scientific competence that extends and builds on those competences developed in an academic BSc-programme, in terms of independence, critical judgment and the
ability to systematically apply their knowledge, skills, understanding, and problem solving abilities in new or unfamiliar environments within a multidisciplinary context related to their field of study. MSc-students obtain advanced competences, knowledge and understanding of the field of AI that is founded upon and extends and/or enhances that typically associated with a BSc-level training, and that provides a basis or opportunity for originality in developing and/or applying ideas in a specific subdomain of AI, e.g., Cognitive Artificial Intelligence and/or Brain-computer Interfacing. The focus on scientific research and research methods constitutes one of the main principles in the educational programme. As such, the final qualifications of the MSc-programme reflect a decidedly scientific orientation. Graduated MSc students are fully capable to work in professional research environments or at academic research institutes, e.g. as junior researchers pursuing their PhD.

Objective 1: Acquisition of knowledge and understanding
Students acquire up-to-date and in-depth knowledge and understanding on AI informed by current scholarship and research that covers the breadth of the field of specialization. This involves core concepts and theories, as well as research techniques and methods in the subject area.

Objective 2: Application of knowledge and understanding
Students can apply acquired knowledge, skills and insight to theoretical and applied problems in AI. They are independently capable of formalising a given AI research question and producing an answer, solution or application in creative and innovative ways to the question, typically by computational means.

Objective 3: Critical judgment
Students are able to reason in a critical, academic manner enabling them to go beyond the state of the art and contribute to the forefront of their research field. This entails that students have a critical awareness of current research and advanced scholarship in the discipline. They are capable of evaluating methodologies and develop critiques of them and, where appropriate, proposing new hypotheses. Students are conscious of presuppositions and societal consequences of research and are able to reflect critically on their own professional actions.

Objective 4: Communication
Students are able to adequately express their knowledge, insights and findings, both orally and in writing. They are trained in presenting, understanding, and judging research findings, allowing them to communicate effectively to specialist and non-specialist audiences in a variety of media and for a variety of purposes (scientific publication, general public information, initiating/maintaining collaboration, acquiring funding).

Objective 5: Learning skills
Students take initiative and take responsibility for their own education and are able to steer their own learning process, enabling them to continue to learn independently and to develop professionally, including the ability to pursue further research, e.g. as a PhD student at a research or professional institute.

Final qualifications of the MSc-programme
Compared to the BSc-programme, the MSc-programme develops higher levels of self-management, independence and critical self-reflection, and allows students to specialise in advanced, state-of-the-art themes in AI. Each individual course contributes to the training of, in total, eleven final qualifications for the MSc-programme. This is the case for both the CAI and the BCI specialisation. As illustrated in Figure 1, the eleven final qualifications implement the five AI learning objectives, which operationalize the five Dublin objectives with respect to the AI profile in Nijmegen:

1. relevant level: The master has demonstrated knowledge and understanding in the field of AI, founded upon the knowledge and understanding associated with a bachelor’s level qualification, that extends and/or enhances the latter, and paves the way for an original contribution in developing and/or applying ideas, often within a research context. The level of the MSc-programme exceeds that of the BSc-programme in that it uses more advanced course material (such as scientific papers), work forms (such as the design of innovative interaction platforms) and amount of independence and responsibilities for, e.g., designing/performing experiments and for scientific communication, both orally and in writing.

2. relevant disciplines: The master has obtained relevant knowledge and understanding in the fields of psychology, computer science, mathematics, logic, linguistics, philosophy and neuroscience, at a level at
which s/he can actively relate AI to those fields, and is able to incorporate the contributions of scientists in different fields into AI projects.

3. **cognition**: The master has obtained relevant knowledge and understanding of several human cognitive functions and skills, such as problem solving, perception, language processing and motor behaviour, at a level that enables an original contribution to the computational modelling of such a functionality.

4. **paradigms**: The master has obtained knowledge and understanding of the similarities and differences in architecture and working between different model types, such as the classical-symbolic, the connectionist and the more recent dynamic and probabilistic model types. The master also has an understanding of the theoretical implications thereof, and of the relevance of different model types for different application domains.

5. **analytical skills**: The master is able to make an independent analysis of an abstract problem that is complex and underspecified, in such a way that a solution can be sought by means of a working computer programme, and, if relevant, a theoretical generalisation can be made. In addition, (s)he has the ability to translate a theory into an algorithm or a computational model, deduce model predictions, and test those predictions.

6. **research**: The master is able to independently design, execute and analyse empirical research in a methodologically correct way.

7. **practical application**: The master is able to think and act in a rational way, and to translate complex and/or extensive practical requirements (for instance those of a user group) into a work plan for developing, improving or extending a computer programme.

8. **philosophy**: The master has an eye for the philosophical foundations and implications of the influential paradigms and model types in AI, as well as for the social and ethical implications of developments in the field.

9. **critical attitude**: The master has a critical, scientific attitude towards research in general and AI in particular, and is able to form a well-founded opinion about the latest developments in several areas of AI.

10. **communication**: The master is able to express him/herself in writing according to the accepted norms for scientific AI publications (both formally, e.g., IEEE (Institute of Electrical and Electronics Engineers) Computer Society, APA (American Psychology Association), and in terms of content), and to effectively digest articles in relevant journals. In addition, the master has obtained oral skills that enable reporting on performed research, and communicating on an equal basis with specialists in AI and the fields mentioned in the second point, as well as with non-specialists.

11. **independent learning skills**: The master has obtained the necessary learning skills to enable further learning in an independent self-directed manner.

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Table M1. Correspondence between the five AI learning objectives and eleven final qualifications (FQ) of the MSc-programme. A marked cell represents the FQ that covers the corresponding objective most significantly.

**Appendix 3  Foreign language Code of Conduct**

At Radboud University Nijmegen, the Foreign language Code of Conduct as stipulated below applies. This code of conduct is based on article 7.2 sub c of the Higher Education and Scientific Research Act.
Article 1
At Radboud University Nijmegen, education and examination may take place in another language than Dutch if the specific nature, organisation or quality of the education and/or the origin of the students necessitates it.

Article 2
The decision to use a foreign language is taken by the dean of the respective faculty after having consulted the Degree Programme Committee. The dean will consider the following principles:
- the need for the use of another language than Dutch must be established;
- interim and final examinations of English-language degree programmes are taken in English; interim examinations of English-taught courses are taken in English, unless the Board of Examiners decides otherwise;
- the education in a foreign language meets the same quality requirements as the education in Dutch.

Article 3
The Education and examination regulations of the degree programme describe the dean’s decision.

Article 4
The dean reports annually to the Executive Board of Radboud University on the decisions he/she has made.

Appendix 4 Rules of conduct at the Faculty of Social Sciences
The Faculty of Social Sciences seeks to offer an environment that lets employees and students work or study in a motivated, fulfilled and effective way. To facilitate this, the faculty has adopted a number of rules governing conduct in the faculty. These rules of conduct are taken to form the foundation for a motivating and inspiring work environment. It is the mutual responsibility of employees and students to comply with these rules.

Points of reference
The faculty seeks to provide an atmosphere characterized by:
- mutual respect and personal development;
- openness and trust;
- cooperation and responsibility.

This implies that
- everyone is treated with respect, and no one is offensive or hurtful. Others should be treated as one would want to be treated by them. This applies to all forms of communication including verbal, written or email communication, on blackboard, in chat-rooms, during course evaluations and when in contact with secretary and support staff;
- everyone familiarises themselves with and acts in accordance with the rules in the various regulations (e.g. EER, Student Act, Regulation on Academic Integrity, RU network Users’ Regulation and Surf-net) as well as the agreements made with respect to attendance, deadlines, review period, completion of assignments, and more;
- an agreement that has been made is never broken;
- students and educators are jointly responsible for the successful functioning of the educational process. They can and may appeal to this responsibility;
- one always assumes that the other has good intentions and does not adhere to prejudicial judgements;
- everyone familiarises themselves with relevant information and last-minute changes in educational organisation and content, for instance via Blackboard;
- everyone respects each other’s property and takes proper care of locations and materials used.
Basically, this can be summarised in the following phrase: treat each other with respect. The faculty trusts that students and employees will act accordingly.

Appendix 5 Scientific integrity
Scientific integrity has been an ongoing topic of attention in the world of research. In 2012, a severe breach of scientific integrity has shocked the national and international research communities. As a result, in 2012 and early 2013, several reports have been published on this topic (e.g., by the College van Bestuur, the
KNAW (commission Schuyt) and the FSW). The commission Schuyt has identified three categories where the breaching of scientific integrity is evident:
- fabrication: fraud with research data; to make up, fabulate, or fabricate research data;
- falsification: to manipulate or falsely present research data and findings, e.g. by leaving out outcomes that negatively influence the research outcomes;
- plagiarism: the practice of taking someone else's work or ideas and passing them off as one's own, without appropriately referring to the source of the work or ideas.

Scientific integrity is not just a matter for researchers, students and teaching staff must obey and promote internationally recognized principles of scientific integrity as well. Pending detailed instructions from the CvB and FSW, the following rules of conduct should be obeyed in any research project, be it for the graduation thesis or any other course assignment. These hold for both the student performing the research and the supervisor(s) guiding the student:
- Strictly avoid the three categories of breaching scientific integrity listed above.
- When using work from others, make the use clear by proper reference. Never claim credit for work from others (software/ideas/text), neither implicitly (not mentioning the original author) nor explicitly (claiming authorship yourself).
- Respect each other and your peers.
- In case of questionable practices, or cases where it is unknown which procedure to follow, consult the BoE (Board of Examiners).
- Each research report must contain (a reference to) a detailed justification of methods and data used in the research, unless such justification is obvious.
- After performing the research, the student must hand over all data, source code and results that the supervisor deems relevant, in a format as required by the supervisor. The supervisor must take care of proper archiving of these materials, following the standards and guidelines of the Master programme in AI.

Please note that these rules of conduct are not exhaustive. A careful and professional attitude is expected from the supervisors. Furthermore, it is expected that the student has acquired this attitude already during the Bachelor and Master programmes and that s/he will further develop an appropriate level of scientific integrity during the project.