**Examination Regulations for the Erasmus Mundus Master of Science in Public Sector Innovation and eGovernance (PIONEER Master) at the Katholieke Universiteit Leuven, Belgium, the Westfälische Wilhelms-Universität Münster, Germany, and the Tallinn University of Technology, Estonia
of 20 February 2018**

Table of Contents:

§ 1
Scope of the Examination Regulations

These Examination Regulations apply the Erasmus Mundus Master of Science in Public Sector Innovation and eGovernance (PIONEER Master) at the Katholieke Universiteit Leuven, Bel-gium, (KU Leuven), the Westfälische Wilhelms-Universität Münster, Germany (University of Münster), and the Tallinn University of Technology, Estonia (TTÜ).

§ 2
Goal of the Programme and Aim of the Examination

(1) This Master's programme builds on the knowledge acquired in a prior undergraduate degree programme. In addition to conveying the academic fundamentals of the subject of study, it aims to provide students with the knowledge, skills and methods necessary to meet the academic and professional standards in the fields of public management, information systems and e-Governance. Students are trained to evaluate complex academic problems in an independent and responsible manner and apply practical methods to solve them.

(2) The Master´s examination determines whether the students have acquired the necessary knowledge and skills for their prospective professional field, particularly in the areas of research and teaching.

§ 3
Joint Master's Degree

After successfully completing the programme, the student is awarded the academic degree of "Master of Science" (M.Sc.).

§ 4
Admission to the Master´s Programme and to the Master´s examination

(1)   In order to be admitted to the master's programme "Public Sector Innovation and eGovernance", the following admissions requirements must be met:

a) the general terms for enrolment at the University

b) successful completion of an undergraduate degree programme in a related field of study with at least 180 credits. This degree programme must have resulted in a bachelor's degree or other degree (Diplom, Staatsexamen etc.) at a state or state-recognised university. Related fields of study are Public Administration, Social Sciences, Political Sciences, Information Systems, Computer Sciences, Engineering, Economics, Law or comparable disciplines.

c) sufficient English language skills

d) admission to and enrolment in the degree programme at KU Leuven and enrolment at TTÜ and University of Münster (or statement that the admissions requirements for enrolment at these universities are met; enrolment at University of Münster requires previous and consisting enrolment at KU Leuven and TTÜ.).

The master's programme "Public Sector Innovation and eGovernance" always starts at KU Leuven in Belgium. KU Leuven is also responsible for admission to the programme. The selection process, including verification of compliance with the admissions requirements in § 4 (1) a-d, is regulated according to Belgian law and takes place at KU Leuven. For more details, see the Admission Regulations at KU Leuven.

(2)   Unless these Examination Regulations require additional admissions requirements for the master's examination, admission to this examination is granted with enrolment in the master's programme at KU Leuven, TTÜ and the University of Münster, provided the student remains enrolled at all three universities.

§ 5
Administration of the Programme

(1) Every university is responsible for organising their respective examinations in the Master programme Public Sector Innovation and E-Governance, according to § 8. They ensure that the stipulations put forward in these Examination Regulations are observed. In particular,

they are responsible for dealing with contested decisions taken during the examination process and for recognising examinations. All disputes and protests related to examinations shall be resolved in accordance with the procedures established at the university, where they arose. Permitted retakes are facilitated by the University where the student is studying at the time of the retake.

(2) The Master programme is managed by the Academic Committee. In particular, the Academic Committee ultimately consolidates the reported grades, decides on appeals related to the Master thesis and its defence and is responsible for awarding the students the Master's diploma. At each of the universities there is also an academic as well as an administrative local coordinator, who is responsible for the management of the Master programme at the local level. In case of appeals related to course examinations (KU Leuven, TTÜ) / module examinations (University of Münster), the respective Local Coordinator shall inform the members of the Academic Committee after he/she has decided on an appeal. Further details are outlined in the subsequent articles and in the Course Descriptions.

(3) The Academic Committee consists of one representative of each university. The representatives of the universities must be professors. For each member a substitute must be elected. The term of office for professors is two years. Re-election is possible. KU Leuven as Consortium Coordinator provides the chair of the Academic Committee. Every university appoints a Local Coordinator by the faculty councils. The term of office is also two years. Re-election is possible. At the University of Münster, the Examination Office of the Faculty Business and Economics (Prüfungsamt der wirtschaftswissenschaftlichen Fakultät) is the administrative office of the Local Coordinator.

(4) The members of the Academic Committee and the Local Coordinators may attend all examinations.

(5) Meetings of the Academic Committee are not open to the public. The members of the Academic Committee, their substitutes and the Local Coordinators are obliged to maintain confidentiality. Committee members and Local Coordinators who are not already under such an obligation through their position as state employees are placed under this obligation by the chair.

(6) The agenda of the Academic Committee will be made up by the chair of the Academic Committee and sent to all members of the Academic Committee at the latest one week before the meeting. All members can ask the chair of the Academic Committee to add a topic to the agenda at the latest a week and a half before the fixed meeting in order to prepare the agenda. Decisions of the Academic Committee will be made as much as possible by consensus. If asked for by a member of the Academic Committee, a vote can be held. Decisions will be taken in that case by the majority of the members present, (both physically and via electronic channels), each member of the Academic Committee having one vote. Minutes of the meetings will be sent to each member as soon as possible. If a member of the Academic Committee thinks a decision is unacceptable for any good reason, he can ask within a period of 14 days starting from the sending date of the minutes to postpone the execution of the decision by a further 14 days in order to find an extraordinary settlement by all members of the Academic Committee. If no extraordinary settlement by all members of the Academic Committee is found within this period, the decision adopted by the majority of the members of the Academic Committee present, (both physically and via electronic channels) is agreed.

§ 6

Standard Duration, Workload and Credits

(1) The standard duration of the programme is two academic years. One academic year consists of two semesters.

(2) In order to obtain the degree, students must earn a total of 120 credits. The programme is structured in such a manner that 60 credits can be earned each year. Academic credit serves as a quantitative measure of a student's overall workload. This includes attending courses as well as time spent on pre- and post-preparation of the course content (i.e. course attendance and self-study time), taking examinations, preparing for examinations, including term papers and the Master thesis, as well as, if applicable, work placements or other types of courses. One credit is equivalent to 25-30 hours of academic work. The workload for one academic year thus amounts to 1,500 - 1,800 hours. Consequently, the entire Master's programme has a workload of 3,000 – 3,600 hours. One credit is equivalent to one ECTS (European Credit Transfer System) point. In detail, the effort per ECTS-credit is defined as follows:

- KU Leuven: 25-30h/ECTS-credit defined by responsible lecturer in the course description
- University of Münster: 30h/ECTS-credit
- Tallinn University of Technology: 26h/ECTS-credit.

For the master thesis, a common workload of 26h/ECTS is defined.

§ 7
Structure and Content of the Programme, Courses / Modules

(1) All students start their first semester at the KU Leuven (5 courses). For the second semester, students move to the University of Münster (5 modules), and for the third semester, students move to the TTÜ (7 courses). The last semester is dedicated to the Master thesis and its thesis defence, which is organised in a rotating system between KU Leuven, University of Münster and TTÜ.

(2) Students are required to earn a total of 120 credits to complete the Master programme, of which the Master thesis including the defence accounts for 30 credits. In addition to the Master thesis and its defence, the programme consists of 17 courses (KU Leuven, TTÜ) / modules (WWU Münster) which are units of instruction varying in topic, content and duration, and which lead to partial qualification in Public Sector Innovation and E-Governance. These are defined in a learning goal related to the academic objective in question. Courses / modules can consist of different types of courses with different teaching and learning formats.

(3) In detail, the Master programme consists of the following courses / modules:

a) KU Leuven:

Course	Type of Course	Type of Examination	Credits
Public Administration and Public Sector Innovation: Capita Selecta	Lecture	Paper/project, report, participation during contact hours	6 ECTS

Research Seminar	Assignment	Paper/project, presentation, process evaluation	6 ECTS
Information Management in the Public Sector	Lecture	Oral examination, take-home examination, presentation, paper, collaboration	6 ECTS
Principles of Database Management	Lecture	Written examination, take-home examination, oral examination	6 ECTS
Business Information Systems	Lecture	Written examination, participation during contact hours, take-home examination	6 ECTS

b) University of Münster

Module	Type of Course	Type of Examination	Credits
Project Management	Lecture + exercise	Written examination, presentation, essay	6 ECTS
Information Management: Theories	Lecture + exercise	Written examination, written report, presentation, written comment	6 ECTS
Enterprise Architecture Management	Lecture + exercise	Written examination, case study, presentation	6 ECTS
Selected Chapters: E-Government	Lecture + exercise	Written examination	6 ECTS
Integrated Research Seminar	Seminar	Seminar paper (elaboration), oral examination	6 ECTS

c) TTÜ

Course	Type of Course	Type of Examination	Credits
Recent Issues in E-Governance	Lecture, seminar, exercise	Home assignment (essay/case study), presentation, written test	6 ECTS
E-Governance and Democracy Instruments	Lecture, exercise	Home assignment (essay/case study)	3 ECTS
Integrated Research Seminar	Seminar	Seminar paper (case study), presentation	6 ECTS
Peer Production and Theories of the Commons	Lecture, seminar, exercise	Written report, presentation	3 ECTS
E-Governance	Lecture, seminar, exercise	Written examination, case-study analysis, presentation	3 ECTS
Entrepreneurship and Technology Management	Lecture, seminar, exercise	Group work, written examination	6 ECTS
Technology and Society	Lecture, exercise	Home assignment (essay)	3 ECTS

(4) The examinations of the courses (KU Leuven, TTÜ) and modules (University of Münster) are organised by the University that is responsible for the course / module, according to § 8 and the Course Descriptions. Permitted retakes are facilitated by the University where the student is studying at the time of the retake.

(5) Furthermore, § 8 and the Course Descriptions define the structure of the examination and the internal structure of the courses (KU Leuven, TTÜ) / modules (University of Münster).

§ 8

Structure of the Examination, Admission to Courses / Modules

(1) The Master's examination is taken in cumulative form over the course of the programme. It consists of the examinations of courses (KU Leuven, TTÜ) / modules (University of Münster) as well as the Master thesis and its defence.

(2) A course / module is successfully completed if all course / module-related coursework has been completed and all examinations have been passed. All required coursework and examinations have to be completed in English, and the student must obtain at least 36 ECTS to be admitted to courses at the TTÜ. Furthermore, admission to a module (University of Münster) / course (KU Leuven, TTÜ) or a certain type of course or a examination of a module / course can depend on further conditions, which are outlined in the Course Descriptions.

§ 9

Required Coursework and Examinations, Registration

(1) Within each course (KU Leuven, TTÜ) / module (University of Münster), students must complete at least one examination, which comprises a part of the master's examination as a part of the calculation of the course grade / module grade and the overall grade. Besides, in accordance with the provisions in these examination regulations, students may be obliged to complete coursework as directed and announced by the instructor.

(2) The language of instruction and examination is English, see § 8 (2) sentence 2.

(3) Further regulations concerning the type, duration and scope of the examinations for the respective course (KU Leuven, TTÜ) / module (University of Münster), are stipulated in § 7 and the Course Descriptions.

(4) The Course Descriptions also stipulate if and how students must register in advance in order to take part in any examination or coursework.

§ 10

Master Thesis and Master Thesis Defence

(1) The Master thesis module examination comprises the Master thesis and its defence and should demonstrate that a student is capable of independently working on a topic from the field of public management, information systems and e-Governance within a specified period of time in accordance with scholarly methods and that he/she is able to document and present the results appropriately. The thesis should comprise about 80 pages in length. A deviation of 10% in length is accepted. Appendices are not part of this counting.

The Master thesis defence is the last examination in the degree course and is approximately 45 minutes in length. It is split into two parts: a presentation of the Master thesis (not exceeding 30 minutes) and a discussion about the thesis and the presentation.

(2) The topic of the Master thesis is set by the Academic Committee upon request of one member of the Thesis Defence Committee, who is responsible for supervising the thesis process. The student has the right to propose both, the choice of topic and the choice of the supervisor.

(3) Upon receiving the student's application, the topic of the Master thesis is assigned to the student on behalf of the Academic Committee by the examiner who requested the Academic Committee to set the topic of the Master thesis. Topics can only be assigned on the condition that the student has already earned a total of 90 credits. The date of the topic assignment must be put on record.

(4) The Master thesis must be completed within 16 weeks. The topic, task and scope of the thesis are to be limited in such a manner that the time allocated will suffice. The student is permitted to change his/her topic only once, and only within the first four weeks of the 16-week period.

(5) Upon substantiated request, the Academic Committee may extend the submission deadline of the Master thesis in exceptional cases by up to twelve weeks. Related requests must be submitted before the regular submission deadline. In serious cases, which would make it difficult or even impossible for the candidate to submit the Master thesis on time, e.g. in cases of severe illness or immutable technical difficulties, the deadline may be extended upon the candidate's request. Other valid reasons may include taking care of one's children aged 12 years and under, nursing or caring for a spouse, a registered civil partner or direct relative or first-degree relative by marriage if such care or assistance is necessary. The Academic Committee is responsible for deciding on and granting extensions (see sentences 1 and 2). Upon request of the Academic Committee, the candidate must present proof of a "valid reason" (if necessary in the form of a medical certificate). Instead of extending the deadline, the Academic Committee can, with regard to sentence 2, also assign a new topic for the Master thesis if the candidate was unable to work on the thesis for more than one year in total. In this case, the assignment of a new topic does count as a second attempt at the Master thesis in the sense of § 15 (2).

(6) The Master thesis must be submitted in English. It must include a title page, a table of contents and a list of works and sources cited. All parts of the thesis that contain wording or content taken from other sources must be identified as such and cited accordingly. The candidate must attach a written declaration to the thesis which states that he/she has written the thesis himself/herself, has not used sources and means other than those indicated and has identified all direct quotes. The declaration also applies to tables, sketches, drawings, graphic illustrations etc. Furthermore, the candidate must include a written declaration consenting to have the thesis stored in a database and compared with other texts to detect possible plagiarism.

(7) Candidates are required to submit three copies of the Master thesis (typewritten, bound and paginated) as well as one digital version for a possible plagiarism check to the

Academic Committee by the assigned deadline. Its submission is only considered on time and complete if both the bound and digital versions are submitted to the Academic Committee before the deadline. The date of submission must be put on record.

(8) Within an eight-week period after the proper submission of the Master thesis, a defence of the thesis is mandatory; in substantiated and exceptional cases the Academic Committee may extend the eight-week period by up to 4 weeks. The Master thesis defence is organised preferably in a rotating manner and will take place before the Thesis Defence Committee at one of the three universities, see § 11. In the case that a student exceeds the nominal period of studies (2 years), he/she defends his/her Master thesis in the university whose turn it is to host the Master thesis defences in the established rotating system.

§ 11
Grading of the Master Thesis and the Master Thesis Defence

(1) The Master thesis and its defence must be scored and graded by the Thesis Defence Committee, which consists of three members. The Academic Committee appoints and announces the members of the Thesis Defence Committee at the beginning of each academic year. The members of the Thesis Defence Committee are examiners in the sense of § 12 and shall have at least a doctoral degree or an equivalent qualification within the field of the programme.

(2) The members of the Thesis Defence Committee must score and grade the Master thesis and its defence together in accordance with § 16 (1). The grade can only be a "pass" or better, however, if all examiners agree upon a passing score or better.

(3) The scoring and the grading process of the Master thesis and its defence and its reasons have to be documented; the documentation must be signed by all examiners. The grade for the Master thesis and its defence must be communicated to the student within a one-week period after the defence. Rectifications can be made within a time period of 10 days after the formal announcement of the result.

§ 12
Examiners and Assessors

The Academic Committee appoints examiners for the Master thesis and its defense as described in §12. Every university's Local Coordinator appoints their examiners and assessors for their courses / modules in accordance to the Course Descriptions.

§ 13
Recognition of Required Coursework and Examinations

(1) Previous study achievements, examinations and/or working experience will be recognised upon request, if equivalence in the sense of the Lisbon Convention is assessed. Equivalence has to be verified, if previous study achievements, examinations and/or working experience are compareable regarding both content and level to the required coursework or examinations they are to replace. The verification of equivalence is not a schematic comparison, but an overall evaluation.

(2) The student has to provide the documents necessary for deciding on recognition. These documents must contain statements on the knowledge and qualifications that are to be recognised. If previous study achievements and/or examinations from degree programmes are to be recognised, then the examination regulations with module / Course Descriptions as well as the individual Transcript of Records or similar documents have to be submitted.

(3) The verification of equivalence is decided by the Academic Committee. Before equivalence can be determined, members of staff representing the subjects in question must be consulted.

(4) If equivalence is verified by the Academic Committee, consideration of previous study study achievements, examinations and/or working experience shall take place in accordance with the procedures established at the university, which is responsible for providing the concerned course(s) / module(s), according to § 8 (3) and the Course Descriptions.

§ 14
Requirements for Students with Special Needs

The course descriptions stipulate the rules applicable if a student can demonstrate that due to disability or chronic illness he/she is partially or entirely unable to complete course (KU Leuven, TTÜ)/module (University of Münster) examinations in their intended form or by the deadlines set forth in these Examination Regulations. All further stipulations are specified in the course descriptions. For the master thesis and its defence applies § 10.

§ 15
Passing and Retaking of the Master's Examination

(1) The Master's examination has been passed when the candidate has passed all of the courses (KU Leuven, TTÜ) / modules (University of Münster) in accordance with § 8, § 10, § 11 and the Course Descriptions and the Master thesis and the Master defence with at least a pass grade (§ 16 (1)). In that case, the candidate has also obtained a total of 120 credits

(2) If the candidate receives a fail grade for the Master thesis, he/she is granted one more chance to write the thesis. A third attempt is not allowed. This also holds true for the Master thesis defence, where also only one retake is allowed; if a student has not passed the master thesis and its defence within two attempts, he/she is considered to have finally failed the Master´s examination.

(3) In case the candidate has permanently failed the Master thesis module, then the Master's examination is considered as permanently failed.

(4) In case the candidate has permanently failed a course (KU Leuven, TTÜ) / module (University of Münster) according to the respective Course Descriptions, the Master's examination is also considered as permanently failed. Further regulations are defined in the Course Descriptions.

(5) If the candidate has permanently failed the Master's examination, he/she may request a transcript listing all of the completed coursework/examinations and, if applicable, respective grades. In order to receive a transcript, the candidate must present his/her certificate of exmatriculation. The transcript is printed on paper including the watermarks and holograms of

the KU Leuven, the University of Münster and the TTÜ and signed by the members of the Academic Committee.

§ 16
Grading of Individual Examinations, Course / Module Grades and Calculation of the Overall Grade

(1) In accordance with the Course Descriptions, all examinations and coursework are either scored and receive a grade, as specified in the table below, or they receive a "pass"/"fail" grade. For examinations / coursework which are relevant for the calculation of course scores (KU Leuven) / course scores and grades (TTÜ) / module scores and grades (University of Münster) and the overall score and grade, the following scores and grades should be used:

Münster			TTÜ			KU Leuven		
Points	Grades	Result	Points	Grades	Result	Points	Grades	Result
‹ 50	5	Fail	‹ 51	0	Fail	‹ 50	0-9	Fail
50-54	4	Sufficient	51-60	1	Sufficient	51-59	10-11	Sufficient
55-59	3,7	Sufficient						
60-64	3,3	Satisfactory	61-70	2	Satisfactory	60-69	12-13	Satisfactory
65-69	3	Satisfactory						
70-74	2,7	Satisfactory	71-80	3	Good	70-79	14-15	Good
75-79	2,3	Good						
80-84	2	Good	81-90	4	Very Good	80-89	16-17	Very Good
85-89	1,7	Good						
90-94	1,3	Excellent	91-100	5	Excellent	90-100	18-20	Excellent
95-100	1	Excellent						

(2) Grades for oral course (KU Leuven, TTÜ) / module (University of Münster) examinations must be communicated to the student and the responsible Local Coordinator/Examinations Office as quickly as possible but latest together with the grades for written course / module examinations

by the end of the semester. The rules applicable for rectifications of announcements of the results of course / module examinations are stipulated in the course descriptions.

(3) For each module of the University of Münster and each course of the Tallinn University of Technology, a final overall score and a final overall grade is determined on the basis of the individual examinations assigned to that course / module; for courses of the KU Leuven, a final overall score is determined on the basis of the individual examinations assigned to that course. If a course / module consists of only one examination, its score is also the overall course / module score and its grade is also the overall course / module grade. If a course / module consists of more than one examination, the course descriptions specify the weighting of the individual score for the calculation of the overall course / module score and the overall course / module grade; thereby, all decimal places are rounded up to the next integral number of the points. This results in the following scores and grades:

Münster			TTÜ			KU Leuven		
Points	Grades	Result	Points	Grades	Result	Points	Grades	Result
‹ 50	5	Fail	‹ 51	0	Fail	‹ 50	0-9	Fail
50-54	4	Sufficient	51-60	1	Sufficient	51-59	10-11	Sufficient
55-59	3,7							
60-64	3,3	Satisfactory	61-70	2	Satisfactory	60-69	12-13	Satisfactory
65-69	3							
70-74	2,7		71-80	3	Good	70-79	14-15	Good
75-79	2,3	Good						
80-84	2		81-90	4	Very Good	80-89	16-17	Very Good
85-89	1,7							
90-94	1,3	Excellent	91-100	5	Excellent	90-100	18-20	Excellent
95-100	1							

(4) The scores of all weighted courses (KU Leuven, TTÜ) / modules (University of Münster) and the score or the Master thesis and its defense form the final overall grade. The score of the Master thesis module accounts for 25 per cent of the final overall grade. The Course Descriptions designate the weighting of each course / module score with regard to the calculation of the final overall grade; thereby, all decimal places are rounded up to the next integral number of the points. This results in the following grades:

KU Leuven		
Points	Grades	Result
‹ 50	0-9	Fail
51-59	10-11	Sufficient
60-69	12-13	Satisfactory
70-79	14-15	Good
80-89	16-17	Very Good
90-100	18-20	Excellent

The final overall grade will only appear with designated results on the documents issued by chair of the Academic Committee, according to § 17.

§ 17
Joint Degree Master's Diploma

(1) When a student has successfully completed his/her Master's programme, he/she receives a joint degree Master's diploma (KU Leuven, University of Münster, TTÜ), confirming the conferral of the Master´s degree (see § 3). The joint degree Master´s diploma is the document with which it can be determined unambiguously that one has complied with all learning objectives of a programme. In many cases, this document is a prerequisite for advanced programmes or particular professions in the labour market. It contains the following points:

a)   The name, date and place of birth of the graduate;
b)   The statement that it is a diploma awarded by KU Leuven, University of Münster and TTÜ;
c)   The obtained degree and title;
d)   The overall grade.

(2) The joint degree Master´s diploma is printed (on paper including the watermarks and holograms of all three universities) by the chair of the Academic Committee, signed by the rectors of the three universities or their delegates, and issued by the chair of the Academic Committee. A duplicate will be stored by the chair of the Academic Committee.

(3) The joint degree Master´s diploma is issued in English.

(4) Besides the paper documents, all joint degree Master´s diplomas are stored in the Flemish government's Credit and Aptitude certificates database.

§ 18
Joint Degree Master´s Diploma Supplement, State Document

(1) In addition to the joint degree Master´s diploma, the student receives a Diploma Supplement. The Diploma Supplement contains a detailed description of the study itinerary that was followed in order to obtain the degree appears in the Diploma Supplement. This includes information regarding the learning outcomes of the programme, an overview of all courses with corresponding credits and results and information on the educational and examination system at the KU Leuven, the University of Münster and the TTÜ. The Diploma Supplement is printed (on paper including the watermarks and holograms of all three universities) by the chair of the

Academic Committee, signed by the members of the Academic Committee and issued by the chair of the Academic Committee. The Diploma Supplement is issued in English; a duplicate will be stored by the chair of the Academic Committee.

(2) From Tallinn University of Technology, students will be additionally awarded a State Document certifying education by Tallinn University of Technology participating in the joint curriculum.

§ 19
Access to the Examination Files

(1) After completing the Master thesis students can, upon request, gain access to their Master thesis examination papers and the examiners' assessments. Requests must be filed with the chair of the Academic Committee no later than three months after the results of the Master thesis is announced. The chair of the Academic Committee stipulates the time and place of access on behalf of the Academic Committee. The same applies with regard to the Master's thesis defense and its examination minutes.

(2) Regulations for the access to examination papers, the examiners' assessments and examination minutes of courses (KU Leuven, TTÜ) / modules (University of Münster) are defined in the Course Descriptions.

§ 20
Absence, Withdrawal, Deception and Violation of Regulations

(1) If a student attempts to influence the outcome the Master's thesis or its defense through dishonest means such as the use of unauthorised material or devices, the examination is regarded as not having been completed and is considered a fail. The reasons must be put on record. The same applies for other kinds of severe erroneous behaviour against generally accepted standards of conduct and violation of good academic practice, as plagiarism. In case of plagiarism, the Academic Committee decides, depending on the level of plagiarism, whether the student will fail the Master thesis and/or its defense or be excluded from the Master´s

Examination entirely, and the Master's examination has then been permanently failed. The reason(s) for exclusion must be put on record.

(2) The rules applicable for absence, withdrawal, deception and violation of regulations considering course examinations (KU Leuven, TTÜ) / module examinations (University of Münster) are stipulated in the Course Descriptions. In case of plagiarism, the respective Local Coordinator has to inform the Academic Committee to decide, depending on the level of plagiarism, whether the student will fail the examination in question or be excluded from the Master´s Examination entirely, and the Master's examination has then been permanently failed. The reason(s) for exclusion must be put on record

(3) Adverse decisions of the Academic Committee must be immediately disclosed to the student concerned by the chair of the Academic Committee in written form. The decision(s) must be justified and accompanied by information on the legal remedies available. Before a decision can be made, the student concerned must be given the opportunity to state his/her case.

§ 21
Invalidity of Individual Examinations, Deprivation of the Master´s Degree

(1) If the student knowingly manipulates the results of a examination or the Master thesis and if this fact comes to light only after the joint Master's diploma has been issued, the Academic Committee can retroactively correct the result and, if applicable, the grades of the examination or the Master thesis accordingly and declare the examination(s) in part or whole as failed.

(2) If the requirements for the admission to a examination or the Master thesis were not met and the student had no intention of acting dishonestly and if this fact becomes apparent only after he/she passed the examination in question, the successful completion of the examination rectifies the mistake. However, if the student is found to have deliberately gained admission through wrongful means, the Academic Committee is responsible for deciding on the legal consequences.

(3) If the requirements for admission to a course were not met and the student had no intention of acting dishonestly and if this fact becomes apparent only after he/she passed the course in question, the successful completion of the course rectifies the mistake. However, if the student is found to have deliberately gained admission through wrongful means, the Local Coordinator in mutual consent with the Academic Committee is responsible for deciding on the legal consequences.

(4) If the requirements for enrolment in the programme and thus the requirements for admission to the Master's examination were not met and the student had no intention of acting dishonestly and if this fact becomes apparent only after the joint degree Master's diploma has been issued, the successful completion of the programme rectifies the mistake. However, if the student is found to have deliberately gained admission through wrongful means, the Academic Committee is responsible for deciding on the legal consequences.

(5) Before a final decision is made, the student concerned must be heard, i.e. he/she has the right to state his/her case.

(6) The erroneous joint degree Master´s diploma and its Diploma Supplement must be handed back to the chair of the Academic Committee, who will replace the erroneous documents with a new joint degree Master´s diploma and a new Diploma Supplement if necessary.

§ 22
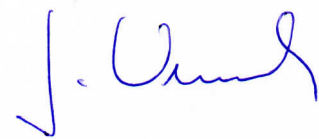
Coming into Force and Publication

These Regulations come into force on the day following their publication in the Official Announcements of the Universities involved in the programme. These Regulations apply to all students who began their studies in the Master's programme PIONEER in or after the winter semester of 2017/18.

Approved by the legal entities of the Katholieke Universiteit Leuven, Belgium, the Westfälische Wilhelms-Universität Münster, Germany, and the Tallinn University of Technology, Estonia.

Issued upon resolution of the faculty board of the School of Business and Economics (FB 04) of the University of Münster on 5 July 2017. The above Examination Regulations are hereby announced.

Münster, 20 February 2018   The Rector

Prof. Dr. Johannes Wessels

Annex to the Examination Regulations for the Erasmus Mundus Master of Science in Public Sector Innovation and eGovernance (PIONEER Master) at the Katholieke Universiteit Leuven, Belgium, the Westfälische Wilhelms-Universität Münster, Germany, and the Tallinn University of Technology, Estonia:

Course Descriptions

(Course/Module Descriptions for the Erasmus Mundus Master in Publc Sector Innovation and eGovernance)

Table of Contents:

§7b Requirements for Students with Special Needs

§8b Modules

3. Semester: Tallinn University of Technology

§ 1c Types of Lectures and Examinations

§ 2c Required Coursework and Examinations, Registration

§ 3c Examiners and Assessors

§ 4c Passing and Retaking of the Master's Examination

§ 5c Access to the Examination Files

§ 6c Rectification of Results, Absence, Withdrawal, Deception and Violation of Regulations

§8c Courses/Modules

4. Semester: Master's Thesis

1. Semester: KU Leuven

§ 1a

Types of Lectures and Examinations

The form of an examination is determined in accordance with the objectives of the course and the teaching method. The examination type is established by the faculty, on the recommendation of the teacher or coordinator if there are multiple teachers. The latest approved examination form is valid while not decided otherwise. Necessary adjustments are approved of in the same way by the faculty, in principle in the academic year preceding the year in which the regulations are applied, and in emergency cases on the latest 15 November of the academic year in which the regulations are applied.

In the case of an individual movement of an exam, the form of the exam can be different than established.

In case of an oral or partially oral exam the student should have at least twenty minutes of written preparation time. Unless explicitly stated otherwise in the ECTS course description, there is no preparation time for exams in the format of a discussion or presentation of a work, for exams that test the student's oral language proficiency in language courses and for exams in the format of OSCE (objective structured clinical examination).

Unless explicitly announced otherwise, all exams are taken without the use of any resources.

For students with a recognised status with accompanying advice for certain examination facilities (cfr. art. 97) or students in temporary special individual circumstances of physical or psychological nature, an amendment of the exam format or the use of a technical device may be allowed after approval by the faculty. The faculty determines the deadline for the application and consults with the faculty expert on education and diversity.

An exam consisting of an evaluation at one specific moment can take no more than half a day (ca. 4 hours).

There is an exam for each course within a study programme. For each course only one examination mark is presented on the deliberation.

Each course is evaluated on twenty points. The result is expressed solely as integers. For the Master thesis, a mark with one decimal is employed, unless the faculty decides not to use decimals. The faculty can decide that for (part of) a course the evaluatation is done in terms of a pass/fail decision. An evaluation in the form of failed is in these regulations equated to a non-tolerable fail mark (see art. 81), unless the faculty explicitly decides otherwise.

Possible component marks are converted into one final mark out of twenty by the teacher or in the case of multiple teachers by the coordinator before the deliberation.

§ 2a
Required Coursework and Examinations, Registration

(1) Time and place of examinations

When, in accordance with the conditions set by the faculty, a student takes course units in another programme of study or in another institution of higher education at home or abroad, the examination on these course units take place at the time and place determined by the programme of study or institution in question and in compliance with the conditions set forth by said course or institution.

(2) Conversion of results obtained at another institution

Under the supervision of the Programme Committee it is possible, if necessary, that the result of an exam taken at another institution of higher education is converted into the KU Leuven assessment scale. Students who follow part of the programme at another institution are notified about the conversion rules before departure.

(3) Replacement by an equivalent course unit

The faculty may grant permission to students who did not obtain a credit certificate for a course unit because they failed in the examination in a foreign institution of higher education to sit an examination for a course unit deemed equivalent by the examination committee in the third examination period of the same academic year at KU Leuven. The student then takes an exam on an equivalent Leuven course determined by the examination committee which the student exchanged with the unsuccessful foreign course involved.

§ 3a

Examiners and Assessors

The task of the examiner is to work out whether students have obtained the learning outcomes of a certain course.

Each exam or part of an exam is held by the course lecturer(s) of the course or by the one(s) who has/have officially replaced the lecturer for teaching the lectures in question or for leading the activities or exercises in question.

In the case of blood or family ties up to and including the fourth degree between a student and an examiner, the latter should request the chairperson of the examination committee to appoint a replacement, following consultation with the Dean of the faculty.

Examinations on educational activities other than lectures may be conducted by examiners who are not the course lecturer, provided they were also responsible for the content of said educational activity. The complementary faculty regulations may stipulate that certain externals (who are not eployed by the university) are allowed to act as examiner, and determines in which situations this is possible and which quality standards these externals should meet.

The course lecturer or the coordinator, if there are several lecturers, remains fully responsible for the final assessment.

The examiner cannot at the end of the (partial) examination announce the result to the student, without prejudice to art. 51 and 96.

Only the course lecturer or coordinator, if there are several lecturers, or his/her official replacement can be a member of an examination committee if the examination committee is determined to be composed of one representative of each course module.

Exams on course units taught by guest lecturers are examined by another examiner appointed by the faculty if these guest lecturers are absent.

§ 4a

Passing and Retaking of the Master's Examination

(1) General principle

Per academic year, students can take an exam on (part of) a course twice and no more than twice, no matter the contracts they have. An exam not (re)taken is considered a taken examination opportunity. Students cannot gain more examination opportunities

by changing contracts. The ECTS course description states whether students, on the basis of the nature of the course, can only take one exam per year.

(2) Retaking passed courses within an academic year
The result of a credit certificate is final. Once a credit certificate has been obtained in a certain examination period, the student cannot retake this course within the same programme.

(3) Retaking failed courses within an academic year
After the second examination period, students decide which unsuccesful courses they wish to retake in the third examination period via the provided procedure. In the third examination period, students can retake courses for which they did not apply tolerances or for which they obtained non-tolerable fail marks and for which a third examination opportunity is organised. Students cannot retake courses which they tolerated in the third examination period.
If a student retakes a fail mark in the same academic year, the first result for the course is maintained if this is higher than the result obtained in the next examination period.

(4)
Note that the second examination opportunity may involve a different type of assessment than the first.

(5) Transfer of partial results
In principle, component marks are not transferred to the next examination period. Only if the nature of the evaluation makes such a transfer sensible, the faculty determines whether the obtained component mark of at least 10/20 or with a 'pass' evaluation is transferred to the next examination period within the same academic year. Such a partial transfer can furthermore only be granted if it relates to course module or a completed whole. No component marks are transferred to the next academic year.
In case of a partial transfer the originally obtained componant mark is included in the new final mark of that course. Students only retake the evaluation activity/activities for which no transfer of the result took place.

(6) Transfer of results when there is no second examination attempt

If, in accordance with art. 41 and art. 89 §1, there is no second examination opportunity for a part of a course unit, the examination result of the first examination opportunity remains valid.

(7) Retaking failed courses between academic years

After the third examination period, students enrolled in a Bachelor's programme, bridging programme, preparatory programme or postgraduate programme and who are not yet in the final phase of their programme and can therefore not be awarded the diploma or certificate, should update their tolerance choices in the study progress file, as stated in the procedure of art 91§3.

The result previously obtained for the course unit will be considered non-existent and the results of the current academic year will take the place of those obtained in the previous year(s).

(8) Retaking passed courses between academic years

The result of a credit certificate is final. Once in a certain academic year a credit certificate was obtained, the student cannot retake this course unit within the same programme of study.

(9)

Exceptionally, on special request and subject to approval by the faculty, students can – at the end of the programme - resit a course unit for which they previously accepted a tolerable fail. They will then need to reregister for these course units and take the exam, based on the subject matter covered in the current academic year. The mark obtained after retaking this course unit and examination will then replace the original tolerable fail mark.

(10)

If a student retakes a course unit, the assessment will be based on the subject matter and the examination content of the current academic year.

§ 5a

Access to the Examination Files

Discussion of the results and right to feedback

During the first seven calendar days after the announcement of the examination results, students have the opportunity to receive feedback, in the form of viewing their exam script as well as an individual or collective discussion of the examination. An individual discussion is a conversation on an individually taken exam between examiner and student.

Examiners should report the feedback regulations for their exam before each examination period to the faculty's administrative service. Those regulations are announced to the students at least a week before the end of the examination period. Students may be accompanied by anyone of their choice to the extent that the latter is not a student who him/herself has to sit examinations for the course unit in question in the same academic year or a student who has to be examined in that same academic year by the examiner involved.

§ 6a

Rectification of Results, Absence, Withdrawal, Deception and Violation of Regulations

(1) Definitions

Examination fraud involves any conduct on the part of a student during an examination in an attempt to make it completely or partially impossible to arrive at an accurate assessment of his own knowledge and skills or those of other students.

Plagiarism is a form of examination fraud that consists of the action of copying the work (ideas, texts, structures, images, plans, …) of someone else without adequate acknowledgement, in an identical form or slightly changed. For the application of these regulations the copying of one's own work without adequate acknowledgement is considered examination fraud.

(2) Procedures

The examiner should notify the chairperson of the examination committee as soon as possible of any irregularity that has occurred in an assessment or examination and which may influence the examination committee's final decision. Without prejudice to art. 75 about the meeting of the select examination committee in case of an irregularity, the select examination committee verifies – possibly in discussion with the expert designated by the faculty – whether the possible infringement can be qualified as plagiarism. It also examines the seriousness of the infringement.

Pending the verdict of the examination committee, the student in question may continue his assessment and examination session. This includes the examination at which the irregular conduct was established, albeit after the confiscation of any incriminating evidence and the part of the examination already completed.

The select examination committee may, following consultation with the examiner, decide to convene the examination committee ahead of the date fixed.

The select examination committee will hear the student prior to any decision regarding irregular conduct.

(3) Disputes before or during an examination

Any irregular conduct or conflicts arising between a student and an examiner before or during examinations and which jeopardise the smooth course of the evaluation should be communicated to the chairperson of the examination committee, possibly via the examination ombudsperson and as soon as possible. The chairperson will mediate and, if necessary, possibly after consultation with the select examination committee, take provisional measures in order to ensure the smooth course of the examination. The final decision, however, will rest with the examination committee. In any case, the select committee will hear both the student and the examiner.

(4) Technical errors

If a technical error is detected, the chairperson of the examination committee must be formally notified of this.

The entire examination committee rectifies the technical errors which imply that a student who was declared to have passed a programme, is declared to have failed,

as set forth in art. 70, last paragraph. The select examination commities rectifies other technical errors.

The chairman convenes the (select) examination committee as quickly as possible. The determined results can still be changed during the terms mentioned in art. 105.

If examination results have already been communicated to the student, the administrative department will provide the student with a corrected examination result sheet. The chairperson and secretary will report this during the next meeting of the examination committee.

(5) Equal treatment

KU Leuven students are entitled to equal treatment.

At their request, certain students can obtain a status that entitles them to education and examination facilities. A recognition of a status is possible for students who

- have a disability;
- are student athletes or top artists;
- are working students: this presupposes that they work at least 80 hours per month or that they are employed part time.

Students with a recognised status or students in special individual circumstances can request education or examination facilities according to the procedures stated in the Regulations on education and examinations.

For each student, it is determined which education and examination facilities are possible.

Students with a disability are entitled to reasonable adjustments. These are only granted after a status approval and an accompanying advice procedure.

(6) Transparancy of management

Each student can view the documents underlying decisions taken with respect to him/her, but not information relating to other students.

In order to practice the freedom of information, students can submit a request to the faculty of which the programme is part or the head of the unit that took the

decision up to a month after the start of the next academic year. Accourding to the regulations of the faculty or the unit, access is granted within a reasonable period. Copies of documents are only given with information that does not relate to the student and that has been made unrecognisable. They are given free of charge.

(7) Specific rights and duties

Students are entitled to: support from the student services at their location, use of the library, use of the computer infrastructure, educational support via Toledo and study advice from the faculty and/or central Study Advice team.

Students with an examination contract are not entitled to these services, with the exception of Toledo. For this, an annual administrative cost of 50 euros is charged.

Students should take into account all regulations applicable to them, as stated on https://admin.kuleuven.be/rd/decreten_reglementen_KULeuven. By registering, they accept all these regulations.

The official communication between KU Leuven and its students happens via the KU Leuven student e-mail address. Registered students should regularly read the e-mails sent to this e-mail address and cannot appeal to not reading these to escape obligations/changes.

Students are not allowed to make audio or video recordings of educational activities, unless this has been arranged with the lecturer of the course unit. The recording can only be used for didactic purposes either by the student making it or by the whole student group in the current academic year. Commercial use is prohibited as is the recording of examinations for whatever purpose. Students using recorded material in any other way than described in these guidelines will be subject to sanctions as set out in the disciplinary regulations. Students cannot object to the recording of teaching activities by the lecturer for simultaneous transmission and/or use on learning platforms; however, they can request not to be personally recognisable.

Students can by no means copy or distribute learning material (course texts, exercises, slides, ...) which has been made available to them on payment or for

free by KU Leuven in the context of their study programme, so that commercial benefit can be gained from it by themselves or by others.

Students can neither copy or use for other purposes than personal ones examination material which has been made available to them on payment or for free by KU Leuven in the context of their study programme.

Students who do not adhere to these rules are subjected to sanctions as described in the disciplinary regulations. Students furthermore risk prosecution for breaches of copyright laws.

Any person who fraudulently forges documents of KU Leuven will be prosecuted. If it concerns students of KU Leuven, the disciplinary regulations will be applied as well.

(8) Different arrangements for students in participation bodies

Deviations from explicitly obligatory attendances or from used work and examination methods, or moving of submission dates of assignments or examination moments are admitted on request by the faculty for students who are a member of a KU Leuven or Association KU Leuven body for which their participation is essential and influential.

On a Flemish level this goes for the mandate of student representatives within Vluhr and Vlor.

On the level of the Association this goes for the mandates of the student representatives in the Board of Directors of the Association and the Advisory Council for Education and Students. On a university level: on a central level this goes for the participation of student representatives in the Board of Directors, Academic Council, Education Council, Council of Student Services and Executive Committees; on a faculty level the list of mandates that are eligible is determined within the complementary faculty regulations, but in any case it includes the mandates of the student representatives of the Faculty Board, Faculty Council, Programme Committees, and when the occasion arises education committees and curriculum committees.

If their rights are not respected in this context, student representatives can contact the education ombudsperson, who will mediate in the case of disagreement. The Dean mediates in continuing conflicts.

(9) Protection of personal data

Students have a right to the protection of personal data in accordance with the policy rules of KU Leuven. Each student can, in accordance with the legislation for the protection of personal data, view and possibly ask for correction of his/her personal data which the university saves electronically once a year.

By registering, students allow the university to:

a) have documents, presented to them with a view to obtaining of certain rights, verified in terms of authenticity and validity by issuing institutions;

b) confirm the authenticity of documents (supposedly) distributed to them by KU Leuven when third parties request this.

(10) Handling of complaints and working of the ombuds

The faculty appoints a member of the academic staff or another staff member with relevant experience in educational matters to be education ombudsperson. Students can contact this person during the academic year with regard to aspects of education. The education ombudsperson mediates between the student(s) involved, the teacher(s) and the policy institutions.

An examination ombudsperson serves with regard to exams. The examination regulations describe the task, appointment and authority of the examination ombudsperson.

Formal complaints with regard to the educational activities of a teacher should be submitted to the faculty of the programme. The faculty makes a motivated decision within 30 calendar days after receiving the complaint. The decision consists of an advice for the Dean on the seriousness of the complaint and can include recommendations with regard to a review of the educational tasks and programmes.

(11) Denial of further access to a course unit

The faculty can, according to the procedure determined for this, in particular cases and on objective grounds, cancel an internship or another practical course unit early, if students through their behaviour have shown to be unfit for the practicing of a job for which the programme prepares them and for which reasonable adjustments offer no solution.

Students whose internship or practical course unit with application of the first paragraph is cancelled, have no right to a second examination opportunity, and are refused to register a second time, unless they meet possibly imposed binding conditions.

(12) Appeals against individual decisions

Internal appeal is possible against:

a) the refusal of a deviating admission after a refusal on the basis of low study efficiency, binding conditions or sufficient examination opportunities;

b) decisions with regard to the granting and the size of a certificate of competence;

c) the denial of the right to continue a course;

d) the imposition of and the size of a bridging or preparatory programme or a programme with reduced study load;

e) a decision with regard to the granting and the size of an exemption;

f) the refusal of taking a certain course unit in the degree contract for which the student who is following an individualised route has not previously registered;

g) an examination decision: by examination decision, each decision made by the examination committee is understood in which:

- an evaluation of a separate course unit is determined definitively;

- a conflict is settled;

- the general result and the possible granting of a level of achievement for a whole programme is decided on;

h) the refusal of a reasonable adjustment for students with a disability.

Appeals should be filed via the central procedure provided for this. Further information can be found on www.kuleuven.be/english/education/appeal. In the complaint, students should at least include a factual description of the invoked objections.

The appeal should be filed within a time period of seven calendar days. In case of an appeal against an examination decision, this period starts on the day of the written announcement of the exam results. For other appeals this period starts on the day on which the student learns about the initial decisions. The student is supposed to have learned about this decision on the day following the date the initial decision was forwarded.

Students who consider an appeal against an examination decision but who wish to postpone that decision until after a meeting with the examiner should also register the appeal within the period described in the previous paragraph. If they do not provide a more elaborate justification of the complaint within the next five calendar days, the appeal is automatically invalid.

For all procedures concerning this programme the Vice Rector for Student Affairs is the appellate..

If the academic manager or the Vice Rector for Student Affairs is a party involved, then (s)he is replaced by the Vice Rector for Education.

The appellate hears the students at their request and asks information from all involved parties and in any case from the teacher of the course in question (if applicable). The student talks to the appellate in person.

The internal appeal procedure leads to:
a) a motivated denial of the appeal on the basis of inadmissibility or groundlessness;
b) a new decision by the appellate.
This denial or new decision is reported to the student via e-mail within a period of twenty calendar days, starting on the day on which the internal appeal is made. For this the e-mail address which the student filled out in registering the appeal is used.

The internal appellate can announce within the provided time in a reasoned way to the student that a decision will be made on a later date. In that case the period for external appeal only starts after that date.

After depletion of these internal appeal possibilities, the student can, in accordance with the determinations of the Codex Hoger Onderwijs, codified on 11 October 2013 file further appeal against the decision in categories a) up to and f) to the Council for conflicts of study progress decisions.

In case of conflict of students against KU Leuven, in addition to the Council for conflict of study progress decisions only the Leuven courts are authorised.

(13) Procedure regarding administrative errors

Administrative or technical mistakes in favour of the student can always be corrected.

At the expense of the student, a correction can only take place within 10 calendar days after the decision is made, except in the following cases:
- if the technical mistake implies a breaching of legal conditions;
- if the technical mistake is demonstrably the result of serious negligence or a serious mistake of the student.

The correction of an administrative or technical mistake is in principle carried out by the body that took the initial decision, unless the mistake is discovered in the course of an appeal procedure or a procedure at the Council for disputes concering study progress decisions

(14) Programmes of study entirely taught in a foreign language

For the purpose of the international student community at KU Leuven, the university offers a number of courses taught entirely in a foreign language in its Bachelor's programmes and Master's programmes. For Bachelor's programmes and Initial Master's programmes, provisions in agreement with other institutions in the Flemish Community are made to ensure an equivalent Dutch-taught programme, to which the provisions set forth in art. 107 and 108 apply. Some

courses and programmes that have been specifically set up for foreign students and are recognised as International Course Programmes within the framework of the Flemish Inter-University Council's development cooperation programme or as Erasmus Mundus Master, are, as exceptions, completely taught and examined in language other than Dutch.

In principle, no Dutch-language variant is provided for Advanced Master's programmes and postgraduate programmes in another language. These programmes can be attended by both foreign and Dutch-speaking students. All students, including Dutch-speakers, who attend these courses, are expected to take the examination in the language of the course or in the language of the course unit if this should differ from the language used in the entire course or programme.

(15) Quality control

When appointing staff, KU Leuven ensures that the prospective member of staff has sufficient knowledge of the international standard language required for teaching. Particular attention is paid to this aspect during the internal quality control of the courses and programmes of study.

(16) Translation of ECTS course description

Only the ECTS course description in the original language of the course includes all official information. The provided translations are merely indicative.

(17) Principle

Students enrolling at the KU Leuven are expected to behave, both within and outside the university community, in a way that shows respect for others, for society and its goods, to not commit acts that are incompatible with the elevated mission of the university in general and the principles on which this university is founded, in particular.

(18) Urgent measures of order

The provisions in these disciplinary regulations do not detract from the authority of the Rector, the Vice Rectors, Deans, Heads of Department and Heads of Services

to take the necessary measures to maintain the order and safety of the university in all circumstances, also beyond a matter of discipline. This may imply, amongst other measures, that a student is temporarily refused access to certain rooms and services.

(19) Competent authorities

Maintaining discipline at the university is entrusted to

-the Vice Rector for Student Affairs for the penalties mentioned in art. 125 a-d);

-the disciplinary board for the penalty mentioned in e).

(20) Sanctions

The sanctions are as follows:

a) warning; this sanction can only be imposed once for an analoguous case. A next sanction will automatically be more severe;

b) suspension of the right to be present at official teaching contact times;

c) provisional suspension and / or temporary expulsion;

d) refusal, as a disciplinary measure, of permission to enrol;

e) definitive exclusion or consilium abeundi.

Each sanction is motivated in writing and communicated to the student.

(21) Start of the procedure

Students against whom a disciplinary measure is considered, are entitled to:

a) the notification by the Vice Recor for Student Affairs of the nature of the measure that is considered and the grounds on which it is based.

b) access to the entire file;

c) a period of 5 calendar days starting from the notification mention in a) in which to prepare and submit an oral and written defence.

Students may be assisted by a person of their choosing in every stage of the procedure.

(22) Composition of the disciplinary committee and procedure

The disciplinary committee consists of: the Vice Rector for Student Affairs, the Dean of the faculty (or his representative) to which the student belongs according

to the latter's main enrolment; student representive of the Group. If the student and the student representative belong to the same faculty, the student representative is replaced by a student representative from another Group. The Dean acts as chairperson of the disciplinary committee.

(23) Appeal

Within seven calendar days of notification of the sanction by email, students can file an appeal to the Executive Board in writing with a justified request.

The seven-day window for appeals starts on the day after notification of the sanction. The guarantees described in art 126 also apply to this appeals procedure. In addition, for the protection of the student, the file is provided only to the members confidentially closed under cover.

The appeal does not suspend the penalty imposed.

This internal appeals procedure may have the following outcomes:
a) rejection of the appeal (with statement of reasons) on the grounds that it is inadmissible or unfounded;
b) a new decision by the appropriate body.

The decision is taken at the first session of the Executive Board, of which the date is communicated to the student immediately after lodging the appeal. The decision is taken by the Executive Board excluding the Vice Rector for Student Affairs and with the chairperson of the student council KU Leuven as full member. The student has the right to be heard at his request. The decision will be communicated via the email address from which the appeal was submitted by the student.

§ 7a
Requirements for Students with Special Needs

1) Spreading examinations outside of the normal examination periods.

Students in special individual circumstances (e.g. serious medical reasons) and students with a recognized status (cfr. art. 97) can be allowed a deferral of exams between the regular examination periods. Students with a recognized status (cfr. art. 97) for whom the recognizing instance advised such a deferral of exams between the regular examination periods as a facility are granted the permission. For students with the status of working student, the advice for exam deferral applies if they have taken up at least 25 study credits in their individual annual programme.

The deferral of exams outside of the regular examination periods is also possible for students who combine two full time programmes ((effectively taking up at least 54 credits for each programme in their ISP).

Allowing exam deferral does not automatically imply that deviations from determined submission dates, explicitly obligatory attendance or used work and examination methods are possible. If this is necessary, a concrete arrangement is worked out with the faculty involved. The education ombudsperson mediates in case of disagreement and the Dean mediates in case of persisting conflicts. For exams that are taken for the first time after the second examination period, the student is notified of the result as soon as possible after the exam itself, in accordance with the relevant regulations. Students who are allowed to defer exams decide whether they take the exam before the deliberation of the third examination period. Students who because of the allowed exam deferral have not yet taken exams for all courses in the second examination period, can apply tolerance for other courses insofar as they meet the requirements formulated in art. 91.

2) Equal treatment

KU Leuven students are entitled to equal treatment.
At their request, certain students can obtain a status that entitles them to education and examination facilities. A recognition of a status is possible for students who
- have a disability;
- are student athletes or top artists;
- are working students: this presupposes that they work at least 80 hours per month or that they are employed part time.
Students with a recognized status or students in special individual circumstances can request education or examination facilities according to the procedures stated in the Regulations on education and examinations.

For each student, it is determined which education and examination facilities are possible.
Students with a disability are entitled to reasonable adjustments. These are only granted after a status approval and an accompanying advice procedure.

3) Special arrangement for incoming exchange students with disabilities

The recognition of the disability is transferred from the home university. The reasonable adjustments are made according to KU Leuven procedures.

4) Special arrangement for students with disabilities

Whenever a student requests an exception to a rule or a special measure on the grounds of having a disability, this is considered a request for a reasonable adjustment.
Students with disabilities requesting reasonable adjustments must undergo a prior approval and advisory procedure. More information on the approval procedure is available at
http://www.kuleuven.be/functiebeperking/erkenning.html.

§ 8a

Courses/Modules

Public Administration and Public Sector Innovation: Capita Selecta:

Aims:
Throughout the sessions of this course the students acquire the following knowledge, skills and attitudes:
Students can describe the main concepts and theories regarding the organisation and processes of public administration.
Students can clarify the context for public administration (societal, administrative and legal).
Students have a critical attitude towards public administration models.
Students can describe the main concepts and theories regarding public sector innovation and egovernance.
Students can understand the administrative, legal, technical and social implications of innovation and innovative practices in public administration
Students understand the diversity of practices of innovation and the role of context in those practices
Students can compare cases and theories in this field

Students have a critical attitude towards theories and cases in public sector innovation and egovernance

Students can find, select, critically assess and use the correct resources to understand and analyse the role of the different actors and relevant structures in public administration.

Students can make their own creative contribution to scientific disciplinary knowledge by writing a scientific paper according to the correct ethical rules.

Students can communicate, clearly and unambiguously, their analysis and rationale underpinning these, by writing a scientific paper and by participating in a debate

Previous knowledge:
This is an introductory course in the field of public administration and public sector innovation. Students are expected to have basic understanding of public administration and policy.

Activities:
The course consists of a diversity of national and international guest lectures, both academic and practitioners: legal, administrative, technical, social etc. aspects of public sector innovation and egovernance will be addressed, together with actual cases, recent research findings and practical implications for the public sector. Students are expected to participate actively to the debate and write a paper with respect of the lectures and course material.

Some introductory classes are provided to introduce students into the field of public administration, and public administration systems in Europe. The introductory courses are meant to support the self-study of the reader.

Evaluation:
Characteristics of the evaluation
The evaluation for this course consists of three partial evaluations
- Participation during the debate
- Two individual papers

Determination of the end result
The evaluation is done by the didactic team, as communicated on Toledo and the examination regulations. The result is calculated and expressed as a round number out of 20.

The grades for this course will be given according to the final examination and the quality of the papers. Further requirements will be specified during the lectures, and in separate documents on the electronic learning platforms.

The examination will determine whether the students have acquired the necessary learning objectives. The examination will also test the ability of the students to analyse, synthesise and evaluate what he has learned.

The deadline for submission must be respected. If the deadline is not met, the student receives a 'not taken' (NA) for the whole course. If a student is unable to comply with it for valid reasons, the student should contact the ombudsperson. If a student does not participate in one of the partial evaluations of the course, the student receives a 'not taken' (NA) for the whole course.

Plagiarism (http://www.kuleuven.be/plagiarism/) is a form of examination fraud that consists of the action of copying the work (ideas, texts, structures, images, plans, ...) of someone else without adequate acknowledgement, in an identical form or slightly changed. For the application of these regulations the copying of one's own work without adequate acknowledgement is considered examination fraud. Plagiarism will be sanctioned with the sanctions mentioned in the University's Regulations on Education and Examinations (www.kuleuven.be/education/regulations/).

Integrated Research Seminar: Part I:

Aims:
Students are able to understand, conceptualise and define a research problem
Students are able to seek for relevant literature and build a theoretical framework for the research problem
Students are able to work independently
Students are able to think critically about a certain problem and to analyse it from different perspectives and fields
Students are able to work as a team on a well defined problem
Students are able to present in a coherent way the results of their work
Students are able to take a position regarding the problem and to defend that opinion in a proper way, according to academic standards

Previous knowledge:
This is the first part of a research seminar. Students have elementary knowledge regarding research

Activities:
Students need to work in a team on a certain problem. They will meet with the lecturer to discuss the progress of their case. At the end of the semester they present their paper to the other students.

Evaluation:
Students need to work in a team on a certain problem. They will meet with the lecturer to discuss the progress of their case. At the end of the semester they present their paper to the other students.

Information Management in the Public Sector:

ECTS: 6

Learning outcomes:
Throughout the sessions of this course the students acquire the following knowledge, skills and attitudes:
- The student can describe and explain the main principles, trends and practices relating to e-governance and can identify the tools and concepts for its' successful implementation.
- The student can identify the recent developments in Information Management and describe (for example, Open Data, Linked Data, Cloud Computing), as well as identify the tools and concepts to implement this successfully (in a public sector organisation).
- The student can recognise the possibilities and limitations of current information management services for public services and policy making.
- The student can explain how new and emerging technologies can be applied in order to innovate the public sector in a changing society.
- The student can describe possible ways for solving existing problems and overcoming the (legal, ethical, technological, security, financial, and governance) challenges in the context of e-governance and public sector innovation.
- The student can clarify how public innovative applications can be used at all levels (operational, tactical, strategic) of management.
- The student can identify the different actors should be involved in the development, implementation and management of information management applications within the public sector.
- Students can report on the policy of information management in the public sector at different administrative levels: local, regional, national, European and global.
- The student can develop and present a strategy for an organisation in the context of e-governance and public sector innovation.
- The student can communicate in a written, oral and visual way about various aspects of information management in the public sector.
- The student can demonstrate a broad interest in the e-governance and public innovation.

The student can show a critical attitude towards e-governance and its value for the public sector as a whole as well as an individual public organisation. This implies both an estimate of the opportunities of e-governance as well as assessing the problems and the (legal, ethical, technological, security, financial, and governance) challenges.

Evaluation activities:
- Oral
- Take home
- Presentation
- Paper
- Collaboration

The deadline for submission must be respected. If the deadline is not met, the student receives a 'not taken' (NA) for the whole course. If a student is unable to comply with it for valid reasons, the student should contact the ombudsperson.

If a student does not participate in one of the partial evaluations of the course, the student receives a 'not taken' (NA) for the whole course.

Plagiarism (http://www.kuleuven.be/plagiarism/) is a form of examination fraud that consists of the action of copying the work (ideas, texts, structures, images, plans, …) of someone else without adequate acknowledgement, in an identical form or slightly changed. For the application of these regulations the copying of one's own work without adequate acknowledgement is considered examination fraud. Plagiarism will be sanctioned with the sanctions mentioned in the University's Regulations on Education and Examinations (http://www.kuleuven.be/education/regulations/).

For the oral exam, the student receives a written preparation time of at least twenty minutes.

Retake

Students who fail this course get a second examination chance during the third examination period. The format of the evaluation may be different from the first examination format. The second examination chance will consist of an assignment and or a presentation based on the grades that the student received on the different parts of the evaluation during the first term. The concrete modalities for the third examination period will be communicated at the beginning of July.

Activities
1) Management and Information Technology (2 ECTS)

The learning activity for this part of the course will mainly consist of a **theoretical introduction** consisting of the following three modules:
- Module I: Foundations: Components of Information Systems in organisations (particularly those of the public sector), evolution, management perception of IT (within the government)

- Module II: Technology: Software, hardware, telecommunications, data resource management and database types
- Module III: Applications: e-business systems (among others ERP (Enterprise Resource Planning), CRM (Customer / Citizen Relationship Management) and decision support systems (Traditional - Future))

During these courses the following study materials are used:
A. Class slides to be accessed on the online learning platform.
B. Literature: Laudon, K.C. & Laudon, J.P. (2016, 14e editie). Management Information Systems. Pearson Education Limited, verkrijgbaar via ACCO.

2) Information management policy (2 ECTS)

The learning activity for this part of the course will mainly consist of a **theoretical introduction** as well as **case examples** and **concrete exercises** consisting of the following three modules:
- Module IV: Information management policy: existing trends in information management policies at different administrative levels (local - regional, federal / national, European, world) with its strengths and implications
- Module V Development: Tuning (public) organizational and IT strategy (concepts) in an external policy framework, a roadmap for development of information systems and applications, outsourcing, change management

- Module VI: Challenges: Ethical, legal, financial, governance and technical aspects (including security).

The course is set in an online learning environment. The students will be able to acces:
A. Video Lectures
B. Video presentations/demonstrations from several international experts
C. Online exercises on a relevant case study
D. Class slides to be accessed on the online learning platform.
E. Literature:
    a. Laudon, K.C. & Laudon, J.P. (2016, 14e editie). Management Information Systems. Pearson Education Limited, verkrijgbaar via ACCO.

Additional literature made available on the online learning platform

3) Strategies for Information Management (2 ECTS)

The students learn how to develop their own strategy for information management and public sector innovation through exercises, feedback and discussions. The course aims to stimulate the debate about the future of information management in the public sector. Using a blended approach for

teaching about information management can help the students to learn about the relevant methods, tools, data and applications by using a more hands-on-approach. It allows the students to immediately apply and discover what they have learned. The classes will be used for theoretical introductions as well as more interactive discussions.

The classes are set up according the learning cycle of Kolb[1]: the course consists of four building blocks: a theoretical introduction, a case example, an exercise and an assignment. The students can go through these different building blocks according to their own learning style. Each of the building blocks aligns with a different step in the learning cycle of Kolb.

- Theoretical introduction: this block focuses on the knowledge transfer related to key principles and relevant trends, policies and practices relating to Information Management in the Public Sector
- Case example: during this block the students are given the opportunity to reflect on a set of case examples as well as the state-of-the-art applications
- Concrete exercises: this block consists of exercises that aim to illustrate concrete case studies dealing with the key principles, relevant trends, policies and practices of public sector innovation.

Assignment: In this block the students are given an assignment to enable them to reflect and report on the current situation of a specific organisation in the context of public sector innovation in terms of key principles applications, trends, relevant policies, and practices.

The course is set in an online learning environment. The students will be able to acces:

A. Online exercises on a relevant case study
B. Online assignment
C. Literature

Principles of Database Management:

Aims:
At the end of this course the student:
- is capable of applying methods and techniques to model data requirements within a specific business context (data modeling)
- knows how to model data requirements using hierarchical, Codasyl, ER, EER, relational and UML models

---

[1] Kolb, D. A. (1984). Experiential learning: Experience as the source of. Englewood Cliffs: Prentice-Hall.

- is capable of developing software solutions to query data models in an efficient way
- knows how to design and evaluate database systems and data warehouses in a networked environment

Previous knowledge:
At the beginning of this course the student should be able to understand the basic principles of Management Information Systems. Previous knowledge of programming may be helpful, but is not a requirement.

If you take this course in a bachelor programme, you can find the order of enrolment of this course and related courses on http://www.econ.kuleuven.be/ond/bachelordiplomaruimte.

Activities:
The course consists of two parts:
• Part 1: Basic concepts of databases, conceptual data modeling, logical database design, relational databases (prof. Baesens)
• Part 2: Transaction management, web-based and other database architectures, data warehousing (prof. Lemahieu)

Course outline:
Part 1:
• Introduction
• Fundamental concepts regarding data management
• Architecture and classification of database management systems
• Data models for database management
• Logical database design
• Database languages in a relational environment
Part 2:
• Universal interfaces to relational database systems
• Transactions, recovery and concurrency control
• Web-database connectivity and database systems in an n-tier environment
• Data warehousing

Evaluation:
Features of the evaluation

*The final examination during the examination period involves an assessment by both lecturers and includes a written and oral component.
With respect to the examination of part 1, theoretical knowledge is evaluated by a written exam, which is followed by an oral defense of the submitted take home assignment (assignment 1).

With respect to the examination of part 2, theoretical knowledge is evaluated by an oral exam with written preparation. A score is given to the take home assignment (assignment 2) entirely based on the submitted text, with no possibility to defend.

The student brings a hardcopy of his/her solution to assignment 1 to the exam.

*The take home exam (two assignments) has to be made individually. Multiple solutions may be possible. If certain assumptions are made: please list them clearly in your solution.

The term of deliverance and deadline of the take home exam will be determined by the lecturer (titularis) and communicated via Toledo.

Determination of final grades

* The grades are determined by the lecturer(s) as communicated via Toledo and stated in the examination schedule. The result is calculated and communicated as a number on a scale of 20.

* The final grade is a weighted score. Both parts will count for 10 points of the final grade. Within each part, the take home assignment is graded and accounts for 20%, while the final exam accounts for the remaining 80%.

* If the student does not participate in the final examination, the final grade of the course will be NA (not taken). If the student does not participate in the home assignments, the grades for these partial evaluations will be a 0-grade within the calculations of the final grade.

* If the set deadline was not respected, the grade for that respective part will be a 0-grade in the final grade, unless the student asked the lecturer to arrange a new deadline. This request needs to be motivated by grave circumstances.

Second examination opportunity

* The features of the evaluation and determination of grades are similar to those of the first examination opportunity, as described above.

* At the second examination opportunity, the assignment can be handed in again (in case the student made corrections to the original). The grade will be determined and calculated as in the first examination opportunity.

Business Information Systems:

Aims:

Upon completion of this course, the student
- is able to understand the relationship between business strategy, information strategy and the operationalization of the two in information systems,

- is able to compare the information strategy and the business strategy and decide whether these are aligned,
- is able to explain the role of information systems for internal and external control in the context of IS governance frameworks,
- knows the most important theoretical frameworks of technology acceptance and value of IS and is able to apply them in practical examples; the student understands the different dimensions of these frameworks and how they can be measured,
- is able to explain the purpose and value of Enterprise Architecture and is able to explain EA frameworks with concrete examples,
- can read and understand BPMN process models,
- knows the key steps of the business process management cycle and is able to apply fundamental BPM principles to simple examples,
- can read and understand ER, EER, and relational information models,
- can query relational databases with SQL,
- can explain the role of information systems for decision support as well as how business intelligence systems can be designed and used,
- understands the difference between predictive and descriptive data mining and understands how basic analytics techniques work,
- understands different aspects, technologies, and business models in an e-business context.

Previous knowledge:

At the beginning of this course the student should:
- be familiar with and interested in the fundamentals of computer science and its business applications such as for example taught in "Grondslagen van de Beleidsinformatica (D0T06A, D0H17A, D0W14A)".
- be familiar with the basics of Office software, computer hardware, file handling and management, and networking and internet technology.

Background knowledge of business economics is useful, but not strictly necessary

Activities:

1. Information systems, strategy and governance: What is an IS?, IS strategy, IS governance
2. Creating Value with IT: Theories on Value of IT, DeLone & McLean IS Success theory, technology acceptance, data quality, Enterprise Architecture
3. Fundamentals of Business process management: the BPM cycle, typology of Business Processes, essentials of Business process modelling, BPMN, business rules and ontologies
4. Information management: (E)ER modelling, relational modelling, SQL
5. Customer Relationship Management (CRM)
6. Business Intelligence and Data Analytics: Business Intelligence, predictive analytics, descriptive analytics

7. E-business: Economic impact, impact on value chain, business models on the web, B2B technologies, online advertising, web analytics

Evaluation:
Evaluation elements:
Permanent evaluation will account for 2 points out of 20.
The final exam will count for 18 out of 20 points.

Permanent evaluation:
The permanent evaluation consists of take home assignments (total score rescaled to 1 point) and in-class questions (1 point). A take home assignments is scored out of 10 (non-submitted assignments yield a score of 0) , and the average score is rescaled to a non-rounded score out of 1. For the in-class questions, the student should answer a minimum number of questions correctly throughout the year to obtain a score of 1. If the student fails to answer a minimum number of questions correctly, the score is 0.
Further details will be communicated by the lecturer via Toledo.

Final exam:
The (written) exam consists of a number of multiple choice questions (typically 30).
A correction is applied for guessing by means of the "multiple choice using elimination" method. Further details are communicated via Toledo.
The result is rescaled to a score on a scale of 18.
In case of an individual move of an examination, the form of the examination may differ from this form.

Determination of final grades:
The final grade is determined as the sum of the final exam score (out of 18) and permanent evaluation score (out of 2).

Second examination opportunity:
The features of the evaluation and determination of grades are similar to those of the first examination opportunity, as described above.
The score obtained for the permanent evaluation will be transferred to the second examination opportunity. There is no option to retake the permanent evaluation.

2. Semester: University of Münster

§ 1b
Types of Lectures and Examinations

There are three major types of instruction methods: lectures, exercises and seminars. A lecture normally lasts between 60 and 120 minutes and is held by a staff-member (at least a doctoral degree) with exceptional knowledge in the respective field. Lectures are the main mean of enhancing the student's knowledge. Exercises usually last 60-120 minutes and are held by a staff-member with very good knowledge of the respective field. In exercises the student needs to complete assignments that deepen his/her knowledge in the respective. A seminar normally lasts at least 60 minutes and is held by a staff-member with very good knowledge in the respective field. In seminars, certain topics are discussed more profoundly, including seminar papers. There are three major examination types: written exams, seminar papers and oral exams.

§ 2b
Required Coursework and Examinations, Registration

(1) The prerequisites for participation in specific modules offered by the University of Münster are outlined in these course descriptions.

(2) Within each module, students must complete at least one examination, which comprises a part of the master's examination as a part of the calculation of the module grade and the overall grade. As a rule, each module concludes with only one examination. Besides, in accordance with the provisions in these examination regulations, students may be obliged to complete non examinations / coursework as directed and announced by the instructor.

(3) § 7 and these course descriptions define the type, duration and scope of the examination(s) for the respective module in general. In particular, this can include written examinations, oral presentations, term / research papers, seminar papers, oral

examinations, lectures, minutes or software-aided examinations administered via schematised testing procedures and evaluated schematically in part or whole. Subject to sentences 6 - 9 and within the framework provided by these examination regulations, the Local Coordinator is responsible for determining and announcing the type of examination, its modalities and the time allotted to complete the examination, or the duration of the examination. The announcement should be delivered in a uniform and binding manner for all candidates of the respective examination at least a month prior to the examination date. In accordance with these examination regulations, each required coursework or examination can be completed in the form of group work as long as the candidate's degree-relevant contribution is clearly separated and distinguishable from that of the other members to enable individual evaluation, e.g. by means of separate sections, page numbers or other objective criteria. Instructors who hold courses comprised of only a few students may administer oral instead of written examinations. These should generally take 20 minutes per candidate for a course volume of six credit points. In this case (and if these examination regulations offer no relevant or deviating provisions), the decision to administer an oral examination is made by the Local Coordinator in agreement with the instructors. The decision must be announced well in advance in order to allow ample time for candidates to exercise their right to withdraw from the examination if desired.

(4) Examinations may also consist of or include multiple-choice sections. In the case of pure multiple-choice examinations, all examinees receive the same questions. All examination questions must be related to the content of the module and ensure reliable examination results. When preparing the questions, the responsible instructor must specify which answers will be recognised as correct. Examination questions must be checked for correctness with respect to the stated educational objective of the module before the examination paper is graded. Should questions be incorrect in this regard, they may not be considered for grading and only the remaining questions may be taken into account. Reducing the number of multiple-choice questions may not lead to a disadvantage for the examinees. An examination consisting entirely of multiple-choice questions is graded as passed if at least 60 per cent of the questions are answered correctly or if the number of correct answers is not more than 22 per cent below the average performance of all examinees.

If the candidate has answered the minimum number of items required to pass correctly, the examination is scored and graded according to § 16 (1) and the following criteria:

90 – 100 points / 1, 3 – 1, 0 / "excellent" if at least 75 per cent,

75 – 89 points / 2, 3 – 1, 7 / "good" if at least 50 per cent, but less than 75 per cent,

60 – 74 points / 3,3 - 2,7 / "satisfactory" if at least 25 per cent, but less than 50 per cent,

60 – 59 points / 4,0 – 3, 7 / "pass" if no or less than 25 per cent

of the additional examination questions are answered correctly.

The criteria listed above also apply to examinations which are partially comprised of multiple-choice sections. The overall grade of the examination is then calculated from the weighted arithmetic mean of the multiple-choice section and the other part of the examination. The parts are weighted according to their share of the overall examination in per cent.

(5) All parts of written examinations that contain wording or content taken from other sources must be identified as such and cited accordingly. The candidate must attach a written declaration which states that he/she has written the examination himself/herself, has not used sources and means other than those indicated and has identified all direct quotes. The declaration also applies to tables, sketches, drawings, graphic illustrations etc. Furthermore, the Local Coordinator can request a written declaration of the student consenting to have the written examination stored in a database and compared with other texts to detect possible plagiarism.

(6) In order to take part in any examination, students must register in advance with the Examination Office of the Faculty Business and Economics (Prüfungsamt der wirtschaftswissenschaftlichen Fakultät). The registration has to take place in person or through a representative. As far as technical requirements are fulfilled, registration may take place via the online registration system of the Examination Office. The registration deadlines

and further details are announced via notice board by the local administrative coordinator. In cases of emergency, e.g. sudden and severe illness, a registration by phone is possible within the announced deadlines; the reasons for the registration by phone have to be submitted immediately. Students may withdraw their registration without explanation within two weeks prior to the examination, either in written or electronic form without negative consequences for them.

§ 3b
Examiners and Assessors

(1) Any individual who regularly holds relevant courses in the subject of the examination is entitled to serve as an examiner, in accordance with § 65 (1) of the Universities Act (*HG NRW*). The Local Coordinator is responsible for deciding on exceptions to this rule.

(2) Only individuals who hold a relevant *Diploma* or Master's degree or an academic qualification of an equivalent or higher-level degree can serve as an assessor.

(3) Examiners and assessors are independent in their actions. For written *examinations*, academic staff members can draft examinations and suggest preliminary grades on behalf of the examiner.

(4) Oral examinations are conducted by an examiner in the presence of an assessor. Before calculating the grade, the examiner must hear the assessor's evaluation. The grade and key themes of the oral examination are recorded in minutes which are signed by the examiner and the assessor. Thereby, the oral examinations, as well as their evaluation, should be documented in such a way that, if an objection is raised, the results can be validated by a second examiner by means of additional oral clarifications, if necessary; this also applies to objections to those allowed to sit in on oral presentations in accordance with § 3b (7).

(5) All written examinations administered in modules are graded by a single examiner.

(6) If an oral or written examination is the final attempt, the examination must be scored and graded by two examiners. In this case, the score and the grade for the examination is calculated as the arithmetic mean of the individual scores. § 16 (3), sentences 3 and 4 apply.

(7)   Students of the same degree programme may attend oral examinations if the candidate does not object. This does not apply to the discussion of the grade and its announcement to the candidate.

§ 4b
Passing and Retaking of the Master's Examination

(1) Students have two attempts at passing the examination of a module. Examinations cannot be retaken just to improve the grade. If a student has not passed such a module examination within two attempts, he/she is considered to have permanently failed the module.

(2) If the candidate permanently fails a module, then the Master's examination is considered as permanently failed, see § 15 (4).

§ 5b
Access to the Examination Files

After completing each examination, students can, upon request, gain access to their examination papers, the examiners' assessments and examination minutes. Requests must be filed with the Local Coordinator via the Examinations Office of the Faculty Business and Economics no later than two weeks after the results of the examination are announced. The Examinations Office stipulates the time and place of access on behalf of the Local Coordinator.

§ 6b

Rectification of Results, Absence, Withdrawal, Deception and Violation of Regulations

(1) A examination is considered a fail if the student, for no valid reason, does not appear at the examination on the designated date, or if he/she withdraws for no valid reason after beginning an assignment/examination. The same applies if a written examination is not completed within the allocated time limit. Examples of valid reasons include medical reasons and/or serious family reasons as severe illness, pregnancy and maternity leave according to §§ 3, 4, 6 and 8 of the Maternity Protection Act and the Federal Parental Benefit Act, or nursing or caring for a spouse, a registered civil partner, a direct relative or a first-degree relative by marriage if such care or assistance is necessary.

(2) The reasons for absence or withdrawal according to § 6b (1) must be submitted immediately and substantiated in writing to the Local Coordinator via the Examination Office of the Faculty Business and Economics. In the case of illness, the Local Coordinator may request a medical certificate (ärztliches Attest). If the Local Coordinator does not accept the reasons given, the student is to be notified in writing. If the student does not receive written notification within a 4-weeks period, then the reasons have been accepted. If a student claims illness as the reason for his/her inability to take an examination but there are sufficient indications that make it likely that he/she was, in fact, able to take the examination or that there was a different reason for missing the examination, then the Local Coordinator can, in accordance with § 63 Absatz 7 Universities Act (HG NRW), request a medical certificate (ärztliches Attest) issued by a University-appointed doctor (Vertrauensärztin/Vertrauensarzt). Such sufficient indications specifically exist if the student has missed four or more examination dates or has withdrawn (see § 6b (1)) from two or more examinations concerning the same examination. The student must be informed of this decision and the reasons for it immediately and be given the names of at least three University-appointed doctors to choose from.

(3) If a student attempts to influence the outcome of a examination or the Master thesis through dishonest means such as the use of unauthorised material or devices, the examination is regarded as not having been completed and is considered a fail. The reasons must be put on record. The same applies for other kinds of severe erroneous behaviour against generally accepted standards of conduct and violation of good academic practice, as plagiarism. In case of plagiarism, the local coordinator has to inform the Academic Committee to decide, depending on the level of plagiarism, whether the student will fail the examination in question or be excluded from the Master´s Examination entirely, and the Master's examination has then been permanently failed, see § 20 (4).

(4) Whoever disrupts a examination may, usually after a warning by the invigilator, be excluded from continuing that particular examination. In this case, the examination is not completed and is considered a fail, too. The reasons for the exclusion must be put on record.

(6) Adverse decisions must be immediately disclosed to the student concerned by the Local Coordinator in written form. The decision(s) must be justified and accompanied by information on the legal remedies available. Before a decision can be made, the student concerned must be given the opportunity to state his/her case.

(7) If a result has to be rectified without the student is found to have violated regulations, the local administrator is responsible for deciding on the legal consequences, subject to the Administrative Procedures Act for North Rhine-Westphalia (Verwaltungsverfahrensgesetz für das Land Nordrhein-Westfalen).

§7b
Requirements for Students with Special Needs

(1)   If a student can demonstrate that due to disability or chronic illness he/she is partially or entirely unable to complete degree-relevant examinations in their

intended form or by the deadlines set forth in the Examination Regulations, the responsible units of the University of Münster must increase the duration of time allocated for completing the examinations, extend examination deadlines or permit the student to complete equivalent examinations more suited to his/her special needs. The same applies to required coursework.

(2) At the student's request, the faculty representative for disabled students must be consulted with regard to decisions according to (1). If consultation with a representative is not possible within the faculty, the University representative is to be consulted.

(3) Students may be required to submit adequate documentation substantiating their chronic illness or disability. This includes, for example, medical certificates or, if applicable, a disability certificate.

§8b
Modules

Module Title:	Project Management

1	Module No:	State: Compulsory

2	Turn: Every summer term	Duration: 1 term	Semester:	CP: 6	Workload (h): 180

3	Module Structure:					
	No	Type	Course	CP	Presence (h + CH)	Self-Study (h)
	1	L	Project Management	6	30 (2 SWS)	60

	2	E	Exercises on Project Management		30 (2 SWS)	60

4	**Contents:**

Project Management includes the planning, execution, monitoring, and controlling of projects. The lecture Project Management provides basic knowledge of (IT) Project Management and addresses the entire project life cycle / project management process. Besides introducing and integrating the distinct phases of the project lifecycle, current methods and tools for project management are introduced. Tutorials and Assignments allow for repeating the contents of the lecture and applying project management methods and tools in a problem-oriented way. Furthermore, guest lectures of experienced industry representatives add to the practical applicability of the lecture program.

Background and relations to other modules / courses:

Project Management skills are an essential part of conducting IT projects. The methods and software tools learned in this module are a crucial basis for further modules in the Information Systems curriculum, especially for managing project seminars. Additionally, general knowledge on managing projects might prove helpful to students for organizing their Bachelor or Master theses.

Teaching methods are lectures, tutorials, software tutorials, and lab exercises. Students will prepare solutions for group assignments and present them to the audience, which enables them to improve their problem-solving and presentation skills.

Main topics and learning objectives:

Topics	Learning objectives
Introduction to (IT) Project Management	Basic information about IT project management, learn about project management theories and project management fundamentals
Project Lifecycle / Project Management Process	Deepen knowledge of the integrated project management process and the project life cycle with a special focus on the life cycle of Process Management projects
Project Integration Management	Understand the challenges of project integration into the general organizational structures
Project Scope Management	Learn about framing and focusing on achieving the outcomes of a project
Project Time Management	Recognise challenges, needs and prospects related to time management in projects

	Project Cost Management	Understand how to calculate costs and budgets in projects appropriately
	Project Quality Management	Analyse project results in terms of quality requirements
	Project HR Management	Learn how to manage project staff in the different lifecycle stages of a project
	Project Communications Management	Understand the importance, needs and methods of communicating project results to stakeholders
	Project Risk Management	Learn how to identify, estimate, and deal with risks in the project life cycle
	Project Procurement Management	Understand how to conduct purchases and how to configure subcontracts with external vendors in projects
	Specialised Topics of IT Project Management	Deepen knowledge in dealing with particular topics in IT projects (e.g., Project Management in IT Outsourcing, IT Service Management, IT Strategy Projects, Software selection projects or in special domains such as eGovernment Projects)
	Software Tutorials	Apply and improve project management methods by using selected software tools (such as SAP Project System, Microsoft Project)
	Assignments	Apply project management methods and software tools to solve group assignments that have a reference to real-world project management scenarios

5	Learning outcomes:
	Academic: Students are able to describe the basic theoretical foundations and theories of project management. Students understand and manage the project management life cycle and its project management processes. Students can describe and apply further issues and needs required in a holistic project management approach. Students deepen their understanding of different project management methods and software tools and apply appropriate method(s) to solve real-world project management situations.
	Soft skills: Students learn and deepen their problem-solving capabilities in small groups as well as their presentation skills during the presentation of their results to a general audience. Through self-study, the contents of the module are further explored by the students in order to improve their skills for literature review. Searching and analyzing academic literature is done in order to prepare for class and to put the contents of the class in a general context.

6	**Relevant Work:**		
	Number and Type; Connection to Course	**Duration**	**Part of final mark in %**
	Final written exam	120 Min.	80
	Short Group presentation + discussion (group of about 5 students)	20 min	10
	Group work essay (group of about 5 students)	4000 words	10

7	**Prerequisites for Credit Points:** The points for the module will be credited if the module was successfully completed in total, i.e. the student has passed all examinations.

8	**Module Prerequisites:** There are no prerequisites, however, having completed the module Application Systems would be beneficial in order to understand the inner workings of project management software (such as SAP PS).

9	**Presence:** The attendance at lectures and active participation in the tutorials and group assignments is highly recommended.

10	**Responsible Lecturer:** Dr. Michael Räckers

11	**Misc.:**

Module Title:	**Information Management: Theories**

1	**Module No:**	**State:** Compulsory

2	**Turn:** Every summer term	**Duration:** 1 term	**Semester:**	**CP:** 6	**Workload (h):** 180

3	**Module Structure:**					
	No	**Type**	**Course**	**CP**	**Presence (h + CH)**	**Self-Study (h)**
	1	L	Theories	3	30 (2 SWS)	60
	2	E	Exercises on theories	3	30 (2 SWS)	60

4	**Contents:**
	Background and relations to other modules / courses:
	A sound understanding of management and information management as provided in the courses
	"Managing the Information Age Organization" and "Information Management Tasks & Techniques".
	Main topics and learning objectives:
	This module deepens the students' understanding of IM tasks and techniques in that it enables them to assess underlying theoretical propositions in more detail. To this end, the lecture introduces important management theories, including market, resource and capability based theories of strategic information systems, IT strategy theory, IT value and productivity theory, organization theory of IT and theories of sourcing and governing the information function. Moreover, on the basis of this theoretical knowledge, critical issues of IM are discussed in the light of the controversial academic discussions surrounding them. The module builds on well-prepared class discussions rather than traditional lectures. The lecturer will support learning by carefully selecting papers and placing them into a broader "theoretical landscape". He will moderate and facilitate the discussions, and provide feedback on the assignments during the semester (reading papers, preparing presentations, writing minutes).

5	**Learning outcomes:**
	Academic:
	The overall aim of this module is to give students access to the academic debate on IM. More specifically, the module is intended to introduce students to the international academic debate on
	the most important or discussed issues of information management. The students will gain insight into the theories underlying the frameworks and techniques proposed for solving IM tasks and will be able to assess these tools and the underlying theories critically.

Soft skills:

In addition to providing students with the capabilities to deal with academic literature reflectively, the module trains them in presenting their take on selected academic papers to the class and furthers their general ability to take an active part in academic discussions. This ability is based on a combination of reading, thinking, writing, discussing and listening skills.

6	**Relevant Work:**		
	Number and Type; Connection to Course	**Duration**	**Part of final mark in %**
	Final written exam	90 Min.	60
	Presentation (group of 4 students)	20 min	15
	Written Report	3 pages	10
	12 written comments on weekly reading	1 page per comment	15

7	**Prerequisites for Credit Points:** The points for the module will be credited if the module was successfully completed in total, i.e. the student has passed all examinations.

8	**Module Prerequisites:** none

9	**Presence:** Presence is recommended

10	**Responsible Lecturer:** Prof. Dr. Stefan Klein

11	**Misc.:**

Module Title:	**Enterprise Architecture Management**

1	Module No:	**State:** Compulsory			

2	**Turn:** Every summer term	**Duration:** 1 term	**Semester:**	**CP:** 6	**Workload (h):** 180

3 **Module Structure:**

No	Type	Course	CP	Presence (h + CH)	Self-Study (h)
1	L	EAM	3	30 (2 SWS)	60
2	E	Exercises on EAM	3	30 (2 SWS)	60

4 **Contents:**

Background and relations to other modules / courses:

This module stresses the aspect of IM as an engineering discipline, in contrast to being a management discipline only. The fundamental idea is to describe organizations as a whole, consisting of goals and strategies, business models, processes, people and information technology. Enterprise Architecture Management propagates a holistic approach that primarily aims at aligning the spheres of business and IT within one or across several companies and at facilitating and governing transformation processes. The Information Manager thereby has the role of an architect of the corporate information infrastructure. The course "Managing IT in the Information Age" introduces students to the tasks and tools in Information Management thus setting the scene for this module.

Main topics and learning objectives:

This module provides insights into the concepts and methods of Enterprise Architecture Management. The need for architectures in complex organizations as an instrument for transformation is motivated by the challenges enterprises face in today's business. Architectures
support the effective planning and governance of enterprises as a whole consisting of business and IT. Consistently implemented, they facilitate the understanding of business entities' interrelationships, set them in relation to strategic goals and help define the desired to be state and the roadmap for its realization. For this purpose, concepts, methods, models and tools are discussed and enriched with insights from practice. The introduction of a specialised modeling language introduces the students to the creation of architectural artifacts. The concrete architecture realization process is underlined by the study of architecture frameworks currently discussed in research and practice.

Topics	Learning objectives

Motivation of EAM	To learn about the challenge today's enterprises are facing and the answers EAM provides in this context
Positioning EAM	To learn the definition and major concepts of EAM, about its key applications and its role as a bridge from strategy to design
Management areas and best practices	To learn about the management areas relevant to EAM and associated best practices commonly applied
Modeling of EAM	To learn how to create different architectural artifacts and to connect them to create a holistic, purposeful picture of the enterprise. Moreover, to learn to use viewpoints to generate stakeholder-specific views of the architecture
Frameworks on EAM	To learn why frameworks play an important role in EAM and to get to know prominent frameworks that are vividly discussed in research and practice.

5	**Learning outcomes:**
	Academic: The students' ability to develop and manage Enterprise Architectures is the module's major goal. An understanding of current developments and frameworks in the domain of architecture implementation should be obtained. Students are equipped with methods for planning, creating and governing such architectures. Furthermore, practical skills in architecture development will be conveyed with work on case studies and presentation of the results.
	Soft skills: Students are encouraged to prepare the contents of the lecture and exercises and to perform follow-up work in teams. This is supported by a Learnweb discussion forum that is guided by the chair. The case study is organised as group work and thus promotes the students' ability to cooperate in teams and to manage their time efficiently. The intermediary results are presented regularly by the groups in front of the complete audience. This enhances the students' presentation and discussion skills. The creation of architectural models by using a syntactically and semantically defined modeling language sharpens analytical and logic skills.

6	**Relevant Work:**		
	Number and Type; Connection to Course	**Duration**	**Part of final mark in %**
	Final written exam	90 Min.	60

	Case study with EAM-Software, Presentation	40 pages, 40 min. presentation	40

7	**Prerequisites for Credit Points:** The points for the module will be credited if the module was successfully completed in total, i.e. the student has passed all examinations.

8	**Module Prerequisites:** none

9	**Presence:** Presence is recommended

10	**Responsible Lecturer:** Prof. Dr.-Ing. Bernd Hellingrath

11	**Misc.:**

ModuleTitle:	**Selected Chapters: E-Government**

1	**Module No:**	**State:** Compulsory

2	**Turn:** Every summer term	**Duration:** 1 term	**Semester:**	**CP:** 6	**Workload (h):** 180

3	**Module Structure:**					
	No	Type	Course	CP	Presence (h + CH)	Self-Study (h)
	1	L	E-Government	3	30 (2 SWS)	60
	2	E	Exercises on E-Government	3	30 (2 SWS)	60

4	**Contents:** **Background and relations to other modules / courses:** eGovernment is a discipline-spanning phenomenon. Coming from a public management background learned in the first semester in Leuven, the technical aspects will be added. **Main topics and learning objectives:** This module offers insights into the technological challenges of eGovernment. Besides the organizational and managerial aspects, eGovernment implementation has to face, there are also several technological aspects to address and understand to implement a livable and working eGovernment architecture. Concepts and techniques will be introduced and practically used during the module.

Topics	Learning objectives
Roots and basic principles of administrational structures	Learn, how administrations work (recap) and what influence on Public Sector information technology this has. Learn, how information technology in and for public administrations evolved.
Standardization and Interoperability	Learn how (IT-)standardization is working. Learn about the importance of standardization and interoperability for efficient it-architectures, esp. in federal structures (e.g. as in Germany).
Business Process Management for the Public Sector	Learn how to structure public sector processes. Learn how to prepare public sector organizations for the introduction/implementation of information technologies.
eParticipation, mGovernment	Learn about the functioning of specific concepts that gain importance in the field of eGovernment.
European best practices and approaches for eGovernment	Learn about different approaches in different European countries and the rationales behind them.

5	**Learning outcomes:**
	Academic: The students gain deepened insight into eGovernment and its organizational and technical implications. They can apply techniques associated to eGovernment like domain-specific business process modelling techniques and further techniques.
	Soft skills: Students learn to understand/interpret documents related to eGovernment strategies. Students learn to discuss their own eGovernment-background with others and reflect their

specific background based on international strategies. Students discuss and present relevant topics to the class.

6	Relevant Work:		
	Number and Type; Connection to Course	**Duration**	**Part of final mark in %**
	Final written exam	120 Min.	100

7	**Prerequisites for Credit Points:** The points for the module will be credited if the module was successfully completed in total, i.e. the student has passed all examinations.

8	**Module Prerequisites:** none

9	**Presence:** Presence is recommended

10	**Responsible Lecturer:** Prof. Dr. Jörg Becker

11	**Misc.:**

Module Title:	**Integrated Research Seminar**

1	**Module No:**	**State:** Compulsory

2	**Turn:** Every summer term	**Duration:** 1 term	**Semester:**	**CP:** 6	**Workload (h):** 180

3	Module Structure:				
	No	Type	Course	CP	Presence (h + CH)	Self-Study (h)

	1	Seminar	Integrated Research Seminar	6	60 (4 SWS)	120

4	**Contents:**
	Background and relations to other modules / courses:
	Basic idea of the integrated research seminar is to reflect and study a real-life case following the three countries and universities integrated into the programme. Coming from Leuven, the real-life case will be further developed and refined.
	Main topics and learning objectives:
	General objective of the seminar is to be able to understand, compare and contrast the experiences working on real-life case studies in the area of public sector innovation and e-governance in the three participating host countries. The students, having studied in Leuven, have gained basic understanding in the field of public management and hence are able to discuss the case from this perspective. During this course, they will be able to add specific concepts of information technology into the real-life case.

5	**Learning outcomes:**
	Academic:
	The students deepen their knowledge on the information technology side of eGovernment. They are able to use such technologies and integrate them into the real-life case. They are able to understand the problems and dependencies of using IT in the public sector.
	Soft skills:
	Students improve their skills in acquiring profound scientific knowledge and presentation. Depending on the topic, group working abilities are supported.

6	**Relevant Work:**		
	Number and Type; Connection to Course	**Duration**	**Part of final mark in %**
	Seminar elaboration and talk	Ca. 20 pages, ca. 60 min.	100

7	**Prerequisites for Credit Points:** The points for the module will be credited if the module was successfully completed in total, i.e. the student has passed all examinations.

8	**Module Prerequisites:** none

9	**Presence:** Presence is recommended

10	**Responsible Lecturer:** Prof. Dr. Jörg Becker

11	**Misc.:**

3. Semester: Tallinn University of Technology

§ 1c
Types of Lectures and Examinations

Study takes place in the form of contact learning (lectures and seminars) and independent work (exercise). Participation of students in seminars, practice sessions, practical training classes, and study practice shall be compulsory. Contact learning shall be conducted according to a schedule. A schedule shall be prepared based on the standard study plan. A lecture normally lasts between 45 and 120 minutes and is held by a staff-member with exceptional knowledge in the respective field. Lectures are the main mean of enhancing the student's knowledge. In exercises the student needs to complete assignments that deepen his/her knowledge in the respective field of study. A seminar usually lasts for 60 minutes and is held by a staff-member or a teaching assistant (PhD student) with very good knowledge in the respective field. In seminars, certain topics are discussed more profoundly, including seminar papers and other assignments. The methods and criteria of assessment are defined in syllabi, which are available to students before the commencement of study. The assessment methods define the manner of attesting the acquisition of knowledge and skills, which include an oral or written examination, an essay, a report, group work, a questionnaire etc. In case of various methods being used for the assessment of learning outcomes, their relevant weights in determining the final grade are specified in the syllabus. An assessment criterion shall specify the expected level and scope of knowledge, which can be proved by the assessment methods. Assessment may be either graded or non-graded. An essay should usually amount up to 2000-3000 words.

Items of graded work that have been completed as part of a course are usually part of the master exam. Graded work that is prerequisite for an exam but does not count for the overall master's grade should be an exception and marked as such.

§ 2c
Required Coursework and Examinations, Registration

Study takes place on a course basis. In a course-based system the student studies subjects based on an individual study plan he or she has drawn up, taking into account the prerequisites established for the subjects. To ensure the logic of sequence of study, up to two prerequisite subjects may be laid down for each subject that, as a rule, need to be completed before commencement of studies in the relevant subject.

An extended syllabus shall be prepared for each subject that stipulates, in addition to the things specified in the syllabus, the list of topics to be covered and a short description of their content, a list of independent assignments, a list of practical assignments, a schedule, the literature and the organization of study and the prerequisites for the examination and assessment.

The methods and criteria of assessment shall be defined in syllabi, which shall be available to students before the commencement of study. Prerequisites for taking an examination may be established for a subject, which shall be available in the expanded syllabus on the subject website in Study Information System and they shall not be changed during the semester.

Examinations shall be administered in the language of instruction. Upon approval by the teacher, another language may be used. As a rule, registration for a primary and repeat examination shall be via the Study Information System. As an exception, a student may be registered for a repeat examination by the examining teacher.

§ 3c
Examiners and Assessors

As a rule, examinations and assessments shall be graded by the person teaching or supervising the subject, to whom the student has declared the subject. A student has the right to request the opportunity to take an examination or assessment before a board.

The teacher shall make sure that the results of a written examination or assessment are made available for the students within a week after taking the examination or assessment. The results of an oral examination or assessment shall be made available to the students on the day of the examination or assessment. The results of the examinations or assessments taken

in the final week of the examination session shall be made available within the next workday after the end of the examination session.

Assessment results shall be entered into Study Information System by the teacher or employee, appointed by the institute director of educational institution. The teacher is responsible for forwarding the completed assessment forms printed from Study Information System and signed by the teacher to the Dean's Office/Office of Academic Affairs of the educational institution.

§ 4c

Passing and Retaking of the Master's Examination

A subject shall be deemed passed or a graduation thesis shall be deemed to be defended when a student obtains positive assessment.

A student has the right to take an examination on the basis of one declaration in the given subject for a maximum of two times. Respectfully, there shall be at least two dates for taking an examination in an examination session with an interval of at least three days between the first and the last examination date. A subject not completed by the end of the repeat examination session must be re-declared.

If a student fails to appear at the examination or fails the primary examination, he or she may take a repeat examination in a repeat examination session. With teacher's consent, a repeat examination can be taken in the primary examination session, after the primary examination. A student may retake an examination, for which he/she received a positive grade once at repeat examination. The last grade shall apply, whereas a student graded with "0" is required to re-declare the subject.

A non-graded assessment is a form of testing knowledge or assessing the completed practical work. It must be made sure that students can take an assessment within the period of scheduled classes. In cases where the result of the assessment is "M" (fail), re-declaration of the subject is required for taking the assessment again.

§ 5c

Access to the Examination Files

After the announcement of the results of the examination, a student has the right to receive explanations from the teacher concerning the mistakes made in the exam.

§ 6c

Rectification of Results, Absence, Withdrawal, Deception and Violation of Regulations

Non-attendance at the primary and repeat examinations shall be marked as "absent". Also, A student who registered for a repeat examination but failed to attend the examination shall be marked "absent" in the assessment report.

In justified cases and with the teacher's consent, the Dean/Director of the educational institution has the right, on the basis of a student's application, to extend the term for completing an examination in the autumn semester for up to two weeks and in the spring semester up to the end of the academic year.

Organization of an examination shall be determined by the teacher. Any resources or materials compiled by the student may be used at the examination only with the teacher's permission and under stipulated terms. A teacher has the right to remove a student from the examination if the student is making use of forbidden support materials or help from other examinees. The result of the examination in that case is a "0" (failed).

If a student violates the academic practice, the Dean or the director of the educational institution has, depending on the gravity of violation, the right to: 1) issue a letter of reprimand to the student;
2) request the Vice Rector for Academic Affairs in writing to delete the student from the matriculation register. The following activities shall be considered violation of academic practice and contemptible behaviour: 1) use of support materials at the examination, except those explicitly allowed by the teacher; 2) any kind of inadmissible sharing of knowledge (prompting, copying, copying homework, etc.) by students in case of assessment of learning outcome; 3) submitting another person's writing under one's own name; 4) plagiarism or extensive rewording of someone else's work, referencing or quoting without proper academic

reference; 5) re-submission of one's own work when credit points have already been received for the work; 6) participating in examination/assessment for another student or allowing another person to participate in the examination/assessment in one's own name;

7) deliberate submission of untrue information (false information) in one's assignments, applications.

The results of a written examination or assessment are made available for the students within a week after taking the examination or assessment. The results of an oral examination or assessment shall be made available to the students on the day of the examination/assessment. The results of an examination or assessment taken in the final week of the examination session shall be made available to the students within the next workday after the end of the examination session.

§7c
Requirements for Students with Special Needs

Students with a disability are entitled to reasonable adjustments. For students in permanent or temporary special individual circumstances of physical or psychological nature, an amendment of the exam format, examination facilities or the use of a technical device may be allowed after approval by the faculty. The faculty determines the deadline for the application and consults with the university expert on education and diversity. The adjustments are only granted after a status approval and an accompanying advice procedure.

§8c
Courses/Modules

Recent Issues in E-Governance

1. Number of ECTS: 6
2. Grading: Exam
3. Language: English
4. Teaching semester: Fall semester
5. Learning objectives:

General objective of the subject is to get an understanding of recent developments in eGovernance, including outcomes of large-scale pilots and recent adoption of new technologies on national, European and international level.

6. Learning outcomes:

After successfully passing the subject the student should be able:
- to identify uses of specific IT systems in public sector;
- to identify the IT-induced organizational changes in public sector;
- to identify the basic principles of managing IT in the public sector.

7. Description of the course:

The course gives an overview of recent developments in eGovernance, including outcomes of large-scale pilots and recent adoption of new technologies on national, European and international level. The success-stories and failures of e-governance projects with factors behind them are discussed. Different case studies with the best existing examples from Estonia and other countries are introduced.

8. Evaluation methods and criteria:

The grade is based on the home assignment (70%) and a class presentation (20%). Participation in the lectures and seminar is mandatory (10%). Passing the written tests taken at the end of each class based on compulsory reading material (multiple choice questions and open questions) is a prerequisite for grading.

Students` understanding about the content of lectures and reading materials will be evaluated with tests and home assignment.

9. Literature:

Gascó-Hernández, Mila (2014): Open Government: Opportunities and Challenges for Public Governance. Springer.

Brocke, J., Rosemann, M. (2010): Handbook on Business Process Management. Springer.

Irani Z., Love, P. (2008): Evaluating Information Systems. Public and Private Sector. Routledge.

	Full-time (weekly hours)
Lectures	3,0
Practice / seminars	1,0
Total	4,0

10. Independent work:

The goal of the coursework is to allow students to demonstrate their critical thinking and conceptual analysis skills, cohesion of arguments, use of sources and evidence, and the breadth and relevance of reading. At least 10 references and 2000 – 3000 words to be used. Topics for the coursework are to be coordinated with the main course instructor.

Evaluation method	Evaluation criteria

Learning outcomes	After successfully passing the subject the student should be able: - to identify uses of specific IT systems in public sector; - to identify the IT-induced organizational changes in public sector; - to identify the basic principles of managing IT in the public sector.
Home assignment + presentation (evaluates learning outcomes 1-3)	The coursework evaluates, how students demonstrate their critical thinking and conceptual analysis skills, cohesion of arguments, use of sources and evidence, and the breadth and relevance of reading.
Prerequisites for grading	Keeping to the deadlines; lecture-seminar participation; passing written tests taken at the end of each class based on compulsory reading material (multiple choice questions and open questions). Participation in seminars and lectures is mandatory, absence from maximum 1 seminar-lecture is allowed. Missing more than one lecture-seminar will result in failure to pass the course. For health or serious personal reasons, a second absence may be justified.
Final Grade	100% - Home assignment+presentation+lecture-seminar participation.

E-Governance and Democracy Instruments

1. Number of ECTS: 3
2. Grading: Exam
3. Language: English
4. Teaching semester: Fall semester
5. Learning objectives:

General objective of the subject is to provide an overview of the information and communication technology (ICT) impact on democratic processes in society and in the exercise of public authority in relation to the use of e-governance development

6. Learning outcomes:

After successfully passing the subject the student:

- knows and is familiar with the basic concepts of e-democracy and the related sectoral developments.
- has an overview of the strategies and policies, which guide the implementation of e-democracy.
- has an overview of e-democracy applications and classifications
- will be able to plan deployment of e-democracy applications.

7. Description of the course:

E-democracy at different levels of society including the processes of the relationship: citizens' activity at grass-roots level, the interaction between citizens and public authorities, cooperation between them, the use of ICT in political campaigns. Explains the implementation of ICT solutions in terms of increasing transparency and citizen trust in political decision-making processes. The survey shall be attached to both the legal framework as well as changes in the evolution of the various technological platforms. Different case studies with the best existing examples from Estonia and other countries are introduced.

8. Evaluation methods and criteria:

The grade forms as follows:

100% - Homework

Students` understanding about the content of lectures will be evaluated.

	Full-time (weekly hours)
Lectures	1,0
Practice / seminars	1,0
Total	2,0

9. Independent work:

The goal of the coursework is to allow students demonstrate their critical thinking and conceptual analysis skills, cohesion of arguments, use of sources and evidence, and the breadth and relevance of reading. At least 10 references. 2000 – 3000 words. Topics for the coursework are to be coordinated with the main course instructor.

Evaluation method	Evaluation criteria
Learning outcomes	- knows and is familiar with the basic concepts of e-democracy and the related sectoral developments. - has an overview of the strategies and policies, which guide the implementation of

	e-democracy. - has an overview of e-democracy applications and classifications - will be able to plan deployment of e-democracy applications.
Home assignment (evaluates learning outcomes 1-4)	The coursework evaluates, how students demonstrate their critical thinking and conceptual analysis skills, cohesion of arguments, use of sources and evidence, and the breadth and relevance of reading.
Prerequisites for grading	Keeping to the deadlines; lecture-seminar participation. Participation in seminars and lectures is mandatory, absence from maximum 1 seminar-lecture is allowed. Missing more than one lecture-seminar will result in failure to pass the course. For health or serious personal reasons, a second absence may be justified.
Final Grade	100% - Home assignment + lecture-seminar participation.

Integrated Research Seminar

1. Number of ECTS: 6
2. Grading: Exam
3. Language: English
4. Teaching semester: Fall semester
5. Learning objectives:
   General objective of the subject is to be able to understand, compare and contrast the experiences working on real-life case studies in the area of public sector innovation and e-governance in the three participating host countries. The aim is also to reflect and explain the essence and applicability of different scientific methods in the context of public sector innovation and eGovernance as well as to enhance students` ability and skills to recite, argue and criticise in scientific discourse.
6. Learning outcomes:
After successfully passing the subject the student:
   - is able to apply their theoretical knowledge of public sector innovation and e-governance in practical settings whereby they utilise their interdisciplinary knowledge;

- demonstrates an interdisciplinary expertise in a specific topic of public sector innovation and eGovernance;
- is capable of translating the studied specific topic into a Belgian, German and Estonian public sector context;
- explains, how public organizations through the use of ICT are able to become more adaptable, flexible and innovative;
- is able to discuss, how can ICT contribute to the efficiency of specific policy domains, such as health, education or justice, and how can big data provide solutions for the public sector.
- is able to defend his/her positions both orally and written, and oppose any critique;
- evaluates adequately the applicability of different scientific methods for dealing with different research questions.

7. Description of the course:

The subject deals with the understanding and comparison of the experiences working on real-life case studies in the area of public sector innovation and e-governance in the three participating host countries. It also reflects and explains the essence and applicability of different scientific methods in the context of public sector innovation and eGovernance as well as enhances students` ability and skills to recite, argue and criticise in scientific discourse. The seminar also offers a venue for various guest lectures by leading international scholars from various sub-fields of public sector innovation and e-governance.

8. Evaluation methods and criteria:

The grade is based on a graded case study (70%) and a class presentation (20%). Participation in the lectures and seminar is mandatory (10%).

9. Literature:

* Budd, Leslie, Harris, Lisa 2009: e-Governance. Managing or Governing? Routledge.
* Noveck, Beth Simone 2009: Wiki Government, R.R. Donelly.
* Lathrop, Daniel, Ruma, Laurel 2010: Open Government. Collaboration, Transparency, and Participation in Practice. O'Reilly.

	Full-time (weekly hours)
Lectures	1,0
Practices / seminars	3,0
Total	4,0

10. Independent work:

The goal of the coursework (case study) is to allow students demonstrate their critical thinking and conceptual analysis skills, cohesion of arguments, use of sources and evidence, and the breadth and relevance of reading.

Evaluation method	Evaluation criteria

Learning outcomes	After successfully passing the subject the student: - is able to apply their theoretical knowledge of public sector innovation and e-governance in practical settings whereby they utilise their interdisciplinary knowledge; - demonstrates an interdisciplinary expertise in a specific topic of public sector innovation and eGovernance; - is capable of translating the studied specific topic into a Belgian, German and Estonian public sector context; - explains, how public organizations through the use of ICT are able to become more adaptable, flexible and innovative; - is able to discuss, how can ICT contribute to the efficiency of specific policy domains, such as health, education or justice, and how can big data provide solutions for the public sector. - is able to defend his/her positions both orally and written, and oppose any critique; - evaluates adequately the applicability of different scientific methods for dealing with different research questions.
Home assignment + presentation (evaluates learning outcomes 1-7)	The coursework (case study) and presentation evaluate, how students demonstrate their critical thinking and conceptual analysis skills, cohesion of arguments, use of sources and evidence, and the breadth and relevance of reading.
Prerequisites for grading	Keeping to the deadlines; lecture-seminar participation. Participation in seminars and lectures is mandatory, absence from maximum 1 seminar-lecture is allowed. Missing more than one lecture-seminar will result in failure to pass the course. For health or serious personal reasons, a second absence may be justified.

Final Grade	100% - Home assignment + presentation + lecture-seminar participation.

Peer Production and Theories of the Commons

1. Number of ECTS: 3
2. Grading: Pass / Fail
3. Language: English
4. Teaching semester: Fall semester
5. Learning objectives:
General objectives of the subject are:
   - to shape the understanding about the essence of peer production and in particular, commons-oriented projects and organizations;
   - to introduce the notion, concept and history of the commons;
   - to present the key factors for successful establishment of collaborative organizations and their governance mechanisms;
   - to give an overview about the cases of commons-based peer production in the new technology fields, such as 3d printing, blockchain technologies and others.

6. Learning outcomes:
After successfully passing the subject the student:
   - knows not only the main concepts of the commons but also has acquired deeper knowledge on commons-related technologies, governance mechanisms and practices;
   - has acquired skills for exploring these issues through first-hand research or development experience contributing to code, design or content;
   - can analyse legal, policy, social, and managerial issues of the commons-based peer production, evaluate user interfaces, or otherwise engage directly with a peer production process;
   - can relate the commons theory to information/network society theories and the ICT-driven techno-economic paradigm;
   - understands opportunities/threats deriving from the emerging modes of immaterial (information) and material (manufacturing) peer production.

7. Description of the course:
   This course is a theoretical as well as hands-on exploration of the theory and practice of commons-based peer production. Students will engage multi-disciplinary literature about the commons, the "sharing economy", peer production, network society etc, while contributing to an existing commons-oriented project. Readings will explore various business models, including mainstream social media platforms and commons-oriented organizations, as well as discuss incentives of cooperation, and potentialities for sustainable transitions. Practical work will be organised around themes of production infrastructures and mechanisms of distributed collaborative projects. The

goal of the class is to engage students in a critically creative discussion of the ICT-enabled collaborative initiatives while developing functionality and expertise on commons-oriented technologies and practices.

8. Evaluation methods and criteria:

The grade forms as follows:

100% - Homework (final report)

Students` understanding about the content of lectures will be evaluated.

	Full-time (weekly hours)
Lectures	1,0
Practice / seminars	1,0	
Total	2,0

9. Independent work

●   Students will engage multi-disciplinary literature about the commons, the "sharing economy", peer production, network society etc, while contributing to an existing commons-oriented project. Readings will explore various business models, including mainstream social media platforms and commons-oriented organizations, as well as discuss incentives of cooperation, and potentialities for sustainable transitions.

●   Practical work will be organised around themes of peer-produced infrastructures and mechanisms of commons-based projects. Students will be required to contribute to a commons-oriented project of their choosing. The course will seek to explore peer production projects in varied contexts and may include discussion of Wikipedia, open hardware projects such as the RepRap 3D printer, distributed computing projects, etc. To accommodate the interests of students from multiple disciplines, the hands-on aspect of the course allows the student to choose from one of six tracks and to work alone or in a group:

1. Management: analyse a peer production community or communities to study management approaches that succeed and fail;
2. Law and Policy: analyse potential legal issues facing a peer production community, ask whether such communities face unique legal challenges, and propose potential solutions;
3. Design: study the user interface design used by a commons-oriented project or an open design file (e.g. CADs etc), proposing improvements.
4. Technical Writing: contribute content to a commons-oriented project such as Wikipedia.
5. Social Science: analyse the social dynamics, motivating factors, or persistent trends in a commons-oriented community or across communities.
6. Computer Science: contribute code to an open source project.

Evaluation method	Evaluation criteria
Learning outcomes	- knows not only the main concepts of the commons but also has acquired deeper knowledge on commons-related technologies, governance mechanisms and practices; - has acquired skills for exploring these issues through first-hand research or development experience contributing to code, design or content; - can analyse legal, policy, social, and managerial issues of the commons-based peer production, evaluate user interfaces, or otherwise engage directly with a peer production process; - can relate the commons theory to information/network society theories and the ICT-driven techno-economic paradigm; - understands opportunities/threats deriving from the emerging modes of immaterial (information) and material (manufacturing) peer production.
Report (evaluates learning outcomes 1-5)	Students` understanding about the content of lectures, which is presented in a report, is evaluated. „Pass" – is able present the theory and the essence of commons-based peer production and the related technologies and (governance) practices. Student has undertaken a first-hand research or development experience contributing to code, design or content. She/he has presented legal, policy, social, and managerial issues, evaluated user interfaces, or otherwise engaged directly with a peer production process. She/he can relate the

	experience to information/network society theories and the ICT-driven techno-economic paradigm as well as has an understanding of opportunities and threats deriving from the emerging modes of immaterial (information) and material production (manufacturing).
Prerequisites for grading	Keeping to the deadlines; lecture-seminar participation, conduction and presentation of mid- and final reports. Participation in seminars and lectures is mandatory, absence from maximum 1 seminar-lecture is allowed. Missing more than one lecture-seminar will result in failure to pass the course. For health or serious personal reasons, a second absence may be justified.
Final Grade	100% - Report + lecture-seminar participation.

E-Governance

1. Number of ECTS: 3
2. Grading: Graded Assessment
3. Language: English
4. Teaching semester: Fall Semester
5. Learning objectives:
General objectives of the subject are:

- to introduce main theories about information society, their evolution, and 'hot topics' derived from the information age such as Internet-based voting, e-security, m-governance, e-health, e-learning, etc;
- to introduce the concept of e-governance and the role of it in public administration system and public administration reform;
- to deepen theoretical and practical knowledge and skills on public administration and management with a stress on their current state and possible evolution due to the information age & society;
- to give an overview of the current state and development of the information society and e-governance in Estonia;
- to bring out the fundamental critique of e-governance.

6. Learning outcomes:

After successfully passing the subject the student:

- has acquired basic knowledge about the main information society theories, historical evolution, development and the current state;
- has acquired deeper knowledge about the main public administration and management theories and practice;
- understands the linkage between public administration and information society theories and practice;
- understands the logic of public organisations and can evaluate the solutions and drawbacks for efficiency while using information and communication technology;
- understands the logic of public service delivery and can evaluate the solutions and drawbacks for effectiveness and efficiency while using information and communication technology;
- can successfully differentiate and apply the obtained theoretical knowledge in practice.

7. Description of the course:

Estonia is known internationally as a well-developed 'e-country' that can be well described by the current advancement and activity in the field of e-governance. This is implicitly characterised by the wide usage of electronic applications in management, the submission of income tax returns over the Internet up to the Internet based elections, etc. At the same time, e-governance has raised several principal problems in the field of public administration, as well as democracy issues. On the one hand, this is about how e-governance fits into and what kind of impact it has on the current public administration system. On the other hand, the question is about the perceptiveness of citizens to use different e-applications.

8. Evaluation methods and criteria:

The grade forms as follows:

40% - Written exam

50% - Case study analysis

10% - Participation

Students` understanding about the content of lectures will be evaluated.

9. Literature:

1. Pinter, R. (ed) (2008) Information Society: From Theory to Political Practice, Coursebook, NETIS: Network for Teaching Information Society
2. Castells, M (ed) (1996) The Rise of the Network Society, Cambridge: Blackwell
3. Dunleavy, P., Margetts, H., Bastow, S., Tinkler, J. (2005) "New Public Management is Dead—Long Live Digital-Era Governance", JPART, Vol. 16, 467-494
4. Kersting, N., Baldersheim, H. (eds) (2004) Electronic Voting and Democracy. A Comparative Analysis, Basingstoke: Palgrave Macmillan

	Full-time (weekly hours)
Lectures	1,5
Practice / seminars	0,5
Total	2,0

10. Independent work

An independent research essay about the impact of ICT on one public service delivery OR on everyday functioning of one public sector organization is also required. The selection of the particular case-study is up to the student. The theoretical framework of the analysis has to apply to the reading material of the course and can be supplemented with additional theoretical literature dependent on the case-study. The essay has to be fully referenced and written in English. Other criteria for the essay will be presented in the beginning of a semester.

Evaluation method	Evaluation criteria
Learning outcomes	After successfully passing the subject the student: - has acquired basic knowledge about the main information society theories, historical evolution, development and the current state; - has acquired deeper knowledge about the main public administration and management theories and practice; - understands the linkage between public administration and information society theories and practice; - understands the logic of public organisations and can evaluate the solutions and drawbacks for efficiency while using information and communication technology; - understands the logic of public service delivery and can evaluate the solutions and drawbacks for effectiveness and efficiency while using information and communication technology; - can successfully differentiate and apply the obtained theoretical knowledge in practice.
I Written examination	A written exam is composed of short and open-end questions to

(evaluates course outputs 1-5)	control the knowledge derived from the compulsory reading assignments and lectures. Differential grading: it is possible to earn maximum 40 points for the written examination, from which 2/3 is composed of test questions and 1/3 of questions oriented on field-specific discussions. The share of correct answers forms the basis for the points earned altogether.
II Case study analysis (evaluates course outputs 1-6) Requirements according to the syllabus	An independent research essay about the impact of ICT on one public service delivery OR on everyday functioning of one public sector organization is also required. The selection of the particular case-study is up to the student. The theoretical framework of the analysis has to apply to the reading material of the course and can be supplemented with additional theoretical literature dependent on the case-study. The essay has to be fully referenced and written in English. Other criteria for the essay will be presented in the beginning of a semester. The selected and best case-study analyses will be presented orally and will serve as a basis for discussion in the seminar specially organised for this purpose. Differential grading: it is possible to earn maximum 50 points for the case study analysis: 50 points – the topic selected is up-to date and bounded to the course's main objectives, theoretical concepts used are appropriate and convincing and in terms of a case study their selection justified and argued; analysis

	builds up a complete and logic picture in the issue; the student's contribution in terms of critical thinking clearly detectable; terms are used correctly; style and formatting correct and other formal criteria (eg length and usage of scholarly sources) fulfilled. 40 points – the topic selected is up-to date and bounded to the course's main objectives, theoretical concepts used are suitable, but in terms of a case study their selection not justified and argumented enough; in general the analysis builds up a complete and logic picture in the issue; the student's contribution in terms of critical thinking not clear enough; terms are used correctly in most cases; some problems in following the rules set for style, formatting (except usage of references) and other formal criteria (eg length and usage of scholarly sources). 30 points – the topic is too broad and/or discussed in details already in the lectures; considerable problems in usage of appropriate theoretical concepts related to the selected case; the analysis lacks a clear logic in a set-up and has given a too great emphasis on empirical and descriptive parts; the student's ability to think critically minimal; there are considerable problems in following the rules set for style, formatting (except usage of references) and other formal criteria (eg length and usage of scholarly sources). Below 25 points – strong violence against formatting (including usage of references etc) rules. The assignment of a case study analysis should meet a deadline, otherwhise certain points will be lost.
III Participation in lectures / seminars	Participation in the lectures and a seminar is mandatory (and gives

	another 10%). The respective points are gathered in a cumulative way during the period of the course. Non-differential grading.
Prerequisites for grading	For every lecture, 1 to 3 articles from the compulsory reading list should be read. Oral presentation in a given time-limit and criteria; the student should be able to defend his/her case and respond adequately to questions/comments raised.
Final Grade	The final grade is calculated as follows: Written examination: 40% Participation in the lectures and a seminar: 10% Case study analysis: 50%. In order to get the final grade, it is obligatory to perform on all the components and earn at least half of the points in each of the components. The final grade is based on the general sum of the points earn for the different components: 91% and more: grade 5 81-90%: 4 71-80%: 3 61-70%: 2 51-60%: 1 50% and less: 0.

Entrepreneurship and Technology Management

1. Number of ECTS: 6
2. Grading: Exam
3. Language: English
4. Teaching semester: Fall Semester

5. Learning objectives:

General objectives of the subject are:

- to analyse entrepreneurship and entrepreneurial process with the focus on R&D and innovation;
- to analyse innovation and technology management on company level;
- to analyse the impact of wider environment on company activities and business models;
- to analyse entrepreneurship related policy, and especially on R&D and innovation policy, and enterprise support system.

6. Learning outcomes:

After successfully passing the subject the student:

- Knows main entrepreneurship related concepts and processes and relates with research and development, and innovation;
- Has knowledge on the main aspects of entrepreneurship both in Estonia as well as internationally;
- Knows the company establishment process and how to overcome possible problems;
- Has acquired knowledge on innovation and technology management on company level;
- Knows methods of generating business ideas and analyse the impact of wider environment on company innovation process, and plan business model, business plan and financial plan (also on practical level);
- Has acquired skills to think creatively and develop ideas (especially technology and innovation intensive) using teamwork as is aware of business idea generation, development and assessment;
- Is able to analyse the impact of wider environment on company activities and knows policies (especially innovation and R&D policies) and entrepreneurship support system;
- Is aware of the academic discourse on entrepreneurship, R&D and innovation and the emerging research topics.

7. Description of the course:

Entrepreneurship is multifaceted, interdisciplinary field that does relate only to management issues, but included wider spectrum of knowledge and skills, and justifies the threefold approach.

First, main entrepreneurship, R&D and innovation related concepts, processes and tendencies are discussed. Company level innovation processes and company strategies in advancing (technological) innovation and research and development are discussed. The focus is both Estonia as well as international developments. Company establishment as well as technology management, and overcoming possible problems, are discussed. These skills are applied in the first group work where business plans are elaborated and defended in front of other students.

The second block relates entrepreneurship, R&D and innovation with societal and economic development. The impact of wider context on company management and development is analysed. Innovation system concept is applied and the impact of R&D on entrepreneurship is discussed in detail. The group assignment relates to the analysis of various development phases of companies and the analysis of potential

further business opportunities. The business plan of the first group assignment is developed further.

The third block focuses on entrepreneurship related policy, and especially on R&D and innovation policy, and on enterprise support system. In the group assignment the potential impact of various policy instruments on different types of enterprises is discussed, and related to the business plan developed.

Leading entrepreneurs and policy makers are involved in the course. The course is set-up based on process.

8. Evaluation methods and criteria:

The grade forms as follows:

30% - Written exam

60% - Three group works

10% - Participation

Students` understanding about the content of lectures will be evaluated.

9. Literature:

Bjerke, B. (2014) About Entrepreneurship. Edward Elgar.

Chell, E., Karataş-Özkan, M. (2014) Handbook of Research on Small Business and Entrepreneurship Edward Elgar.

Drucker, P. (1999) Innovation and Entrepreneurship.

Welter, F., Smallbone, D., Gils, A. Entrepreneurial Processes in a Changing Economy. Frontiers in European Entrepreneurship. Edward Elgar.

Tidd, J., Bessant, J., Pavitt, K. (2006). Innovatsiooni juhtimine. Tehnoloogiliste, organisatsiooniliste ja turu muudatuste integreerumine. Tallinn: Pegasus.

Fagerberg, J.; Mowery, D. C.; Nelson, R. R. (toim) (2004) The Oxford Handbook of Innovation, Oxford University Press.

Dodgson, M.; Gann, D. M.; Salter, A. (2008) The Management of Technological Innovation Strategy and Practice, Oxford University Press.

	Full-time (weekly hours)
Lectures	2,0
Practice / seminars	2,0
Total	4,0

Evaluation method	Evaluation criteria
Learning outcomes	After successfully passing the subject the student: - Knows main entrepreneurship related concepts and processes and

	relates with research and development, and innovation; - Has knowledge on the main aspects of entrepreneurship both in Estonia as well as internationally; - Knows the company establishment process and how to overcome possible problems; - Has acquired knowledge on innovation and technology management on company level; - Knows methods of generating business ideas and analyse the impact of wider environment on company innovation process, and plan business model, business plan and financial plan (also on practical level); - Has acquired skills to think creatively and develop ideas (especially technology and innovation intensive) using teamwork as is aware of business idea generation, development and assessment; - Is able to analyse the impact of wider environment on company activities and knows policies (especially innovation and R&D policies) and entrepreneurship support system; - Is aware of the academic discourse on entrepreneurship, R&D and innovation and the emerging research topics.
Group work I	Group work results must be presented at the seminar during ten minutes. Final group work must be submitted as a PowerPoint presentation. The group as a whole will be evaluated, but an individual performance and participation in discussions might influence the formation of the final score.

	Assessment criterion: In the first group work business plan is elaborated and defended in front of other students. The extent learning outcomes have been acquired will be evaluated in 20 score scale. It is evaluated to what extent the main entrepreneurship, R&D and innovation related concepts have been learned and how a concrete business idea is related to tendencies both in Estonia as well as internationally. It is also evaluated how skillfully methods of generating business ideas, development and assessment, and resource needs are applied. The evaluation also covers how main technology management issues are treated. For the positive result the learning outcomes have to be acquired and applied in the group work presentation.
Group work II	Assessment criterion: In the second group work companies and their specificities in a concrete business sector and further development potential are analysed. The business plan elaborated in the first group work is related to the wider context and additions to the business plan are presented. The extent learning outcomes have been acquired will be evaluated in 20 score scale. It is evaluated how entrepreneurship is related to social and economic development and how clearly the impact of such wider environment is presented to company activities and development. It is also evaluate how the concept of innovation systems (innovation depending on wider socio-institutional environment, policies, co-operation between companies and research and development) has been obtained and applied. For the positive result the learning outcomes have to be acquired and applied in the group work presentation.

Group work III	Assessment criterion: In the third group work the potential impact of various policy instruments on different types of enterprises is presented, and related to the business plan developed (including what support measures could be relevant for the elaboration of the business plan proposed). The extent learning outcomes have been acquired will be evaluated in 20 score scale. It is evaluated how well knowledge on entrepreneurship related policy, and especially on R&D and innovation policy, and enterprise support system has been obtained. For the positive result the learning outcomes have to be acquired and applied in the group work presentation.
Participation in lectures / seminars	Participation in the lectures and a seminar is mandatory (and gives another 10%). The respective points are gathered in a cumulative way during the period of the course. Non-differential grading.
Written exam	Assessment criterion: The final exam assesses to what extent the more theoretical materials have been obtained. The extent learning outcomes have been acquired will be evaluated in 30 score scale. It is evaluated if the student knows main entrepreneurship related concepts and processes and relates with research and development, and innovation. It is assess if one has knowledge on the main aspects of entrepreneurship both in Estonia as well as internationally and knows the company establishment process and how to overcome possible problems. Has one acquired knowledge on innovation and technology management on company level and is able to analyse the impact of wider environment on company activities and knows policies (especially innovation and R&D policies) and entrepreneurship support system. It is

	assessed if one is aware of the academic discourse on entrepreneurship, R&D and innovation and the emerging research topics. For the positive result the learning outcomes have to be acquired.
Prerequisites for grading	Meeting the deadlines, participation in lectures/seminars and participation on group works. Participation in seminars and lectures in mandatory, absence from maximum 2 seminars/lectures is allowed. All group works have to be resulted with positive result.
Final Grade	The final result is based on three group works (each 20% of the final result), active participation in the lectures/seminars (10%) and final written exam (30%). For the positive result of the course positive result in all sub-criteria has to be acquired.

Technology and Society

1. Number of ECTS: 3
2. Grading: Pass-Fail
3. Language: English
4. Teaching semester: Fall Semester
5. Learning objectives:
General objectives of the subject are:
- to introduce the motives behind the creation and implementation of technologies and their impact on society;
- to explain possible hazards stemming from technologies, the dark side of technology as such;
- to reflect standpoints of critically-minded schools of thought towards technology and to understand the argumentation behind their positions in historical perspective;
- to survey opportunities and weaknesses deriving from the application of technologies in public administration and overall governance - the critique of e-solutions.
6. Learning outcomes:
After successfully passing the subject the student:

- explains the motives behind the positions of technology critics and schools of thought;
- demonstrates and evaluates threats stemming from technologies, especially ICT, by ethical and social criteria;
- evaluates critically competing understandings about the innovation process and the essence and impacts of technological development on society;
- gives judgments to accounts given by scientists and technologists of what they do;
- compares and contrasts different e-solutions in public administration and broader governance framework;
- relates technology to media, information, civil society and economy.

7. Description of the course:

A sophisticated understanding of technology and its impact on society, i.e. technology governance, requires that one looks at, and understands its existence-changing, epochal power in the modern world. In this course, the aim is to introduce, pars pro toto, one of the main schools of technology critique (that of the Conservative Revolution of the German Weimar Republic associated with the names Freyer, Heidegger, the Jünger brothers, and Gehlen), as well as one of the main technophobic utopias (the Arts & Crafts movement associated with Ruskin and Morris), to investigate their philosophical arguments, to follow these lines of thought in their theoretical and practical implications to our days, and to discuss them on a culturological level as well.

8. Evaluation methods and criteria:

The grade forms as follows:

90% - Essay

10% - Participation

Students` understanding about the content of lectures will be evaluated.

9. Literature:

Eric Alterman, Out of Print. The death and life of the American newspaper, The New Yorker, 31 March 2008, athttp://www.newyorker.com/reporting/2008/03/31/080331fa - fact - alterman.

Nicholas Carr, Is Google Making Us Stupid? What the Internet is doing to our brains, The Atlantic Monthly, July/August 2008.

Wolfgang Drechsler, E-Voting: Dispatch from the Future, The Washington Post, Outlook section, Sunday, 5 November 2006, athttp://www.washingtonpost.com/wp-dyn/content/article/2006/11/03/AR2006110301470.html.

Arnold Gehlen, Man in the Age of Technology, New York: Columbia UP, 1980 [1957], esp. ch. 1, pp. 1-23, and ch. 2, subch. Diffusion of Technical Modes of Thought, pp. 43-46.

Romano Guardini, Letters from Lake Como, Grand Rapids, MI: Eerdmanns, 1994 [1927], esp. letters 1-8, pp. 3-75.

	Full-time (weekly hours)
Lectures	1,5

Practice / seminars   0,5
Total   2,0

Evaluation method	Evaluation criteria
Learning outcomes	After successfully passing the subject the student: - explains the motives behind the positions of technology critics and schools of thought; - demonstrates and evaluates threats stemming from technologies, especially ICT, by ethical and social criteria; - evaluates critically competing understandings about the innovation process and the essence and impacts of technological development on society; - gives judgments to accounts given by scientists and technologists of what they do; - compares and contrasts different e-solutions in public administration and broader governance framework; - relates technology to media, information, civil society and economy.
Essay (assesses learning outcomes 1-6)	Based on the essay, understanding of course content is assessed. Students will be evaluated according to their understanding about the topics covered. Every student presents an essay on one topic, chosen from the list of potential themes. „Pass" – has an overview about the main positions of technology critics and schools of thought, and explains the motives behind their positions. Can demonstrate and

	evaluate the threats stemming from technologies, especially ICT, by ethical and social criteria. Understands the impact of technology on processes and developments taking place in societies, and on social relationships. Evaluates critically competing understandings about the innovation process and technological development. Gives judgments to accounts given by scientists and technologists of what they do. Compares and contrasts different e-solutions in public administration and broader governance framework. Relates technology to media, information, civil society and economy.
Participation in lectures / seminars	Participation in the lectures and a seminar is mandatory (and gives another 10%). The respective points are gathered in a cumulative way during the period of the course. Non-differential grading.
Prerequisites for grading	Lecture-seminar participation, presentation of essay or passing the exam. Participation in seminars and lectures is mandatory, absence from maximum 1 seminar-lecture is allowed.
Final Grade	90% - Essay 10% - Lecture-seminar participation.

4. Semester: Master's Thesis

Module Title:	**Master thesis**

1	**Module No:**	**State:** Compulsory

2	**Turn:** Every term	**Duration:** 1 term	**Semester:**	**CP:** 30	**Workload (h):** 780

3	**Module Structure:**				
	No	**Type**	**Course**	**CP**	**Presence (h + CH)**	**Self-Study (h)**
	1		Writing the thesis	25	0 h (0 CH)	650
	2		Thesis defence	5	0 h (0 CH)	130

4	**Contents:** **Background and relations to other modules / courses:** The master thesis is written in the research context of one of the fields of study. The topic of the Master thesis is set by one of the members of the Thesis Defense Committee, see § 10 and § 11. The student has the right to propose both the choice of topic and supervisor, see § 10. **Main topics and learning objectives:** Those are subject to the topic and area where the thesis is intended. The thesis defence covers the thesis' topic. With his/her master thesis, a student is supposed to prove his/her ability to take part in the scientific process by doing a small piece of research and write an appropriate paper on it. The thesis should have a length of approximately 80 pages. The thesis defence contains a presentation of the thesis' contents as well as a discussion.

5	**Learning outcomes:**
	Academic: The Master thesis and its defense should demonstrate that a student is capable of independently working on a topic from the field of public management, information systems and e-Governance within a specified period of time in accordance with scholarly methods and that he/she is able to document and present the results appropriately, see § 10. The

student can handle a research topic in a scientific way and apply the results to practical problems. He or she can present and defend approaches, underlying theory and results.

Soft skills:
The student can handle the formal requirements associated to a research paper: investigating the research context, collecting material from the scientific literature, performing and processing bibliographical inquiries, presenting own ideas in the scientific environment of the given topic.

6	**Relevant Work:**		
	Number and Type; Connection to Course	**Duration**	**Part of final mark in %**
	Master thesis	See § 10	83
	Master thesis' defence	ca. 45 min, see § 10	17

7	**Prerequisites for Credit Points:** The points for the module will be credited if the module was successfully completed in total, i.e. the student has passed all examinations.

8	**Module Prerequisites:** Master thesis topics can only be assigned on the condition that the student has already earned a total of 60 credits. For the Master thesis defense, additionally to the submission of the Master thesis, completing the curriculum up to defending the Master thesis shall be the precondition for being eligible to conduct the defense. The curriculum is completed once all the study modules have been completed, see § 10.

9	**Presence:**

10	**Responsible Lecturer:** Prof. Dr. Jörg Becker; Prof. Dr. Bruno Broucker, Prof. Dr. Robert Krimmer

11	**Misc.:**