

**Programme-specific appendix to the Education and Examination Regulations
2019-2020**

for the Master of Science Programme

Educational Science and Technology (EST)

Table of contents

| | | |
|-----|---|----|
| 1. | Structure and content of the programme | 3 |
| 1A. | COMPOSITION OF THE PROGRAMME | 3 |
| 1B. | STUDY LOAD OF THE PROGRAMME | 4 |
| 1C. | HONOURS PROGRAMME | 4 |
| 2. | Goals and objectives of the programme | 5 |
| 3. | Examination and exams | 7 |
| 3A | EXAMINATION | 7 |
| 3B. | EXAM FORMATS | 7 |
| 3C. | PREREQUISITES AND REQUIRED SEQUENCE OF EXAMS | 8 |
| 4. | General information | 9 |
| 4A. | ADMISSION TO THE PROGRAMME | 9 |
| 4B. | LANGUAGE | 10 |
| 4C. | INTERNATIONAL AGREEMENTS | 10 |
| 4D. | ELECTIVE PROGRAMME | 11 |
| 4E. | PROGRAMME COMMITTEE | 11 |
| 4F. | EXAMINATION BOARD | 11 |
| 5. | Transitional arrangements | 11 |
| 6. | Study advice first year | 11 |
| 7. | Additional subjects | 11 |
| 7A. | SPECIFIC EST PROGRAMME DEMANDS | 11 |
| 7B. | GRADUATION WITH DISTINCTION | 12 |
| 7C. | PRE-MASTER'S PROGRAMME EDUCATIONAL SCIENCE AND TECHNOLOGY (EST) | 12 |

Appendix A: LMU-UT Double Degree contract

1. Structure and content of the programme

1a. Composition of the programme

Table 1 (below) shows the courses which make up the EST programme in EC (1 EC = 28 hours of study load) per unit.

The **generic structure** (of the September – fulltime - enrolment) of the programme is as follows:

| Quartile 1A | Quartile 1B | Quartile 2A | Quartile 2B |
|--|--|---|--|
| Trending topics in educational science and technology 201200034 (10 EC) | | | |
| Team learning at work 201500010 (5 EC) | HRD & Technology in a live context 201600126 (5 EC) | Regulation and facilitation of workplace learning 201200031 (5 EC) | Leadership and organisational change 201200032 (5 EC) |
| Designing learning & performance support 191970340 (5 EC) | Assessing, monitoring and improving student and school performance 201300001 (5 EC) | Innovative technology-based learning environments 201400002 (5 EC) | Teacher learning and development 201200027 (5 EC) |
| Learning and Instruction * 192914040 (5EC) | | Learning and Instruction 192914040 (5EC) | Educational measurement 201500149 (5 EC) |
| Research Proposal | Research Proposal | Research Proposal EST 201200035 (5 EC) | |
| | | Final Project EST 201200036 (25 EC) | |

* Retake of block 1A is in block 2A, not in1B!

| | | | |
|--|--|---|--|
| Global talent management 201500086 (5 EC) | | HRM and innovation 201500087 (5 EC) | |
| | | HRM and technology design 201500088 (5 EC) | |

| | |
|--|--|
| | Core Course – obligatory |
| | Elective Courses HRD |
| | Elective courses EDU |
| | Research Proposal |
| | Final Project |
| | Extra courses from preferred partners |

Table 1: Curriculum EST 2019-2020.

1b. Study load of the programme

A student's study trajectory in the one-year (60EC) EST programme consists of 30 EC course work and 30 EC Final Project (i.e. 5 EC research proposal plus 25 EC project work).

More specific, all students take the obligatory (10 EC) core course 'Trending Topics in Educational Science and Technology', which is offered twice per year, since the EST programme has two (2) terms of enrolment: September and February.

Next to this obligatory course, students have to take a number of electives courses (in total 20 EC).

Full information on the options in this respect can be found in section 4d (Elective programme) of this programme-specific appendix of the Education and Examination Regulations.

1c. Honours programme

For excellent students the University of Twente offers three (3) different extra-curricular master's honours programmes of 15 EC each. These programmes have a distinctive profile which allows students to develop themselves in one of the three roles: as an organiser, designer or researcher.

These programmes are:

- MSc Change leaders
- MSc Design honours
- MSc Research honours

More information on these programmes and the corresponding selection procedures can be found at the UT honours programmes website <https://www.utwente.nl/en/excellence/master/>

2. Goals and objectives of the programme

The main aim of the Master's degree programme Educational Science and Technology (EST) is to deliver competent researchers who are scientifically schooled, independent and critical educational designers, decision makers, and advisers who can contribute to the subject area of education in general and to their chosen area of specialisation in particular. To reach this goal the programme has established the following standards:

- **Domain orientation:**
Graduates have a firm and broad overview of education and of the specialty areas within, and specific expertise in one of the specialty areas that can be used productively and creatively in various related professional contexts.
- **Design competency:**
Graduates are able to systematically frame up, fill in, augment, evaluate, and implement designs to support learning environments in various education and training contexts.
- **Research competency:**
Graduates are able to systematically collect, analyse, and interpret research data, to draw conclusions from the data, and on the basis of that advise or decide on possible alternatives and activities to be conducted, particularly in a design context.
- **Advice competency:**
Graduates are able to advise (educational) organizations, in part based on the three competencies mentioned above, with regard to the implementation of better and more efficient learning environments and organizational as well as policy related arrangements for learning and teaching.
- **Academic reflection:**
Graduates are able to critically reflect on processes, resulting products, and achieved results from systematic and relevant scientific, social-cultural, and ethical perspectives in order to contribute to the professional development of the educational specialist and to a broadening and/or deepening of the scientific subject area.

The main focus of the master's degree programme Educational Science & Technology (EST) is on the design and evaluation of learning arrangements in schools and organisations. This might be the instruction of young children at primary school, of young adults during their vocational education, or adult employees in a company, such as sales managers or teachers receiving in-service training or training on the job. In the EST programme students acquire knowledge about theories of learning and assessment, curriculum design and implementation, learning technologies, effective training approaches and learning interventions. Students also will learn how to design and evaluate different learning arrangements and to translate these into advice and solutions for practical problems.

EST programme prepares graduates to work in the contexts of formal schooling or continuing professional growth in businesses and other organisations. Most courses draw on examples from one of these fields, while though some offer opportunities for both.

Graduates from the EST programme will become scientific educational professionals, experts who connect scientific research, scientific design and (their own or future) practice. The outcome of their expertise is based on educational questions and problems from practical contexts (both schools and organisations), which they translate into research questions and which they try to answer by applying a systematic approach, thus finding appropriate solutions for the specific problem. The result of this approach is a design (or a set of designs), which is tested in the context of the problem to see if that solution helps realising an improvement or innovation. This evaluation does not only lead to an improvement or innovation, but it also leads to more knowledge and the forming of new theories. The systematic, technological, and design- and evaluation-based orientation characterises the EST programme and distinguishes our programme at the University of Twente from other education-related degree programmes in the Netherlands.

Graduates work in a wide range of organisations, from government, ministries, publishers and educational support services to universities, higher education institutes and multinational companies. A number of graduates have started their own education and training consultancy bureaus.

For those interested in the context of formal education

- Courses situated in the field of formal education (EDU) focus mainly on teacher and school development, school effectiveness, educational technology, and instructional design. They offer learning opportunities related to primary, secondary or tertiary education. With these courses, students gain expertise in planning, developing, and implementing innovative learning scenarios.
- Questions frequently asked in this context are:
 - o How can learning innovations be designed and implemented?
 - o How can technology be used and integrated into education?
 - o How can schools and teachers be supported in the design, development and implementation of innovations at both school and classroom level?
 - o How can teachers be empowered in their own professional development for implementing innovative (technology-based) learning innovations?
 - o Can school performance be improved by giving schools feedback on the level of their performance, e.g., by means of feedback from digital monitoring systems?
 - o To what degree do school leadership, school culture and the teamwork between teachers influence the effectiveness of schools?
 - o Do schools perform better as a result of school inspections or are the improvements only superficial?
- The applied character of EST is visible in all courses of the program. Courses in which the context of formal education features prominently offer opportunities to:
 - o Understand and analyse different theories and paradigms related to educational design and –implementation, teacher and school development, school effectiveness and ICT in a variety of educational contexts and indicate what they mean for practice,
 - o Plan, design, and implement innovative educational trajectories to increase its quality, and able to assess the effect of these curricula,
 - o Improve the performance of schools by taking school leadership, school culture and teamwork between teachers into account,
 - o Conduct scientifically robust and practically relevant research in, for, and with schools,
 - o Reflect on the various core issues in the field of EDE and on his or her own position in this.

For those interested in the context of human resource development

- Human Resource Development (HRD) focuses on how adults learn and develop professionally. Leadership, talent development, and lifelong learning are among the focal points in this track. While this area overlaps with the professional development of teachers, it also includes the learning of adults in businesses and other organisations.
- Questions frequently asked in this context are:
 - o How do people learn during their work?
 - o How do people become experts in their field?
 - o How can one facilitate workplace learning and professional development?
 - o What are effective training programmes and how to evaluate these?
 - o How can one manage learning and knowledge sharing in a company?
 - o How do organisations change and do HRD professionals assist in this process?
 - o What is the role of new media and technology in learning?
- The applied character of EST is visible in all courses of the program. Courses in which the context of human resource development features prominently offer opportunities to:
 - o Understand and analyse different HRD theories and paradigms, and what they mean for practice,
 - o Design innovative and well-thought interventions to increase learning and development in a company or institution,
 - o Advise companies and institutions on questions related to learning and development of their employees,
 - o Conduct research on HRD problems and know how to use research for designing good learning interventions and giving solid advice,
 - o Reflect on the various core issues in the field of HRD and on his or her own position in this.

3. Examination and exams

3a Examination

The EST programme has one (1) examination, i.e. the master's examination after 1 year. The master's examination is deemed to have been successfully completed if all exams of the agreed units of study, including the Final Project (master's thesis), have been completed successfully.

3b. Exam formats

The exam formats of each unit of study in the EST programme is shown table 2

Written exams are individual tests, unless specified otherwise. The weight attributed to each of the exam components is stipulated in the course's electronic learning environment, and made public before the start of the course.

Note:

In addition to Article 4.1 of the BMS EER, in the EST master's programme the following applies:

If a unit of study has been completed successfully (final grade 5.50 or more) then this grade is final. If a student feels that there are exceptional circumstances that justify an exemption from this rule (and thus justify an extra opportunity), he/she has to send a motivated written request to the Examination Board. Such an exemption can only be granted once.

| Quartile | Course code | Name (+ study load) | Examiner(s)* | Exam formats |
|--------------------|-------------|--|---|---|
| 1A | 201500010 | Team learning at work (5EC) | Dr. A.M.G.M. Hoogerboom | Written exam, Group Assignment |
| 1A | 191970340 | Designing learning and performance support (5EC) | Dr. H. van der Meij | Assignment |
| 1A & 2A | 192914040 | Learning and instruction (5EC) | Dr. H. van der Meij, Dr. A.M. van Dijk | Written exam |
| 1A | 201500086 | Global talent management (5EC) | Dr. J.G. Meijerink | Assignments |
| 1B | 201600126 | HRD echnology in a live context (5EC) | Dr. B. Kollöffel | Assignments |
| 1B | 201900134 | Assessing and monitoring performance in education (5EC) | Dr. M. van Geel, Dr. H.W. Luyten, Dr. K. Schildkamp | Written exam, formative assignments |
| 1A & 1B 2A & 2B | 201200034 | Trending topics in educational science and technology (10EC) | Dr. A.M. van Dijk (coord.) | Assignments (e.g., written exam, essay, presentation, group assignment) |
| 2A | 201200031 | Regulation and facilitation of workplace learning (5EC) | Dr. M.D. Endedijk | Written (take-home) exam, Group assignment |
| 2A | 201400002 | Innovative technology-based learning environments (5EC) | Dr. T.H.S. Eysink | Assignment |
| 2A | 201500087 | HRM and innovation | Dr. A.C. Bos-Nehles | Assignment |
| 2A | 201500088 | HRM and technology design | Prof.dr. T. Bondarouk | Written exam, Assignment |
| 2B | 201200032 | Leadership and organisational change (5EC) | Dr. M.D. Hubers | Written exam, Assignment |
| 2B | 201200027 | Teacher learning and development | Dr. M. van Geel, | Take home |

| | | | | |
|--------------------|-----------|------------------------------|---|-----------------------------------|
| | | (5EC) | Prof.dr. A.J. Visscher | written exam, Group assignment |
| 2B | 201500149 | Educational measurement | Dr. M.C. Heitink, Prof.dr.ir. B.P. Veldkamp, | Assignment |
| 1A & 1B 2A & 2B | 201200035 | Research proposal EST (5 EC) | Dr. B.J. Kollöffel, Dr. C. Poortman, Dr. H. van der Kolk; Prof.dr. A.J.M. de Jong | Research proposal |
| | 201200036 | Final project EST (25 EC) | First mentor (as indicated on the final project contract) Second mentor (as indicated on the final project contract) | Project report and presentation |

Table 2: List of units of study, examiners, and exam formats

Note:

In case more than one (1) examiner per unit of study is mentioned, the in bold mentioned examiner has been designated as the one who holds first responsibility.

3c. Prerequisites and required sequence of exams

Upon meeting the entry requirements of the MSc degree programme EST, students are entitled to participate in all EST courses.

There is no required sequence of exams, but students are strongly recommended to take and to complete the course Trending topics in educational science and technology (201200034) first.

4. General information

4a. Admission to the programme

The Admission Committee assesses all applicants to the MSc Educational Science & Technology (EST) programme on an individual basis. The assessment of the applicant's skills is based on formal as well as content-related admission criteria.

The *formal criteria* are as follows:

- A. Bachelor's degree or equivalent
B. **Note:** for international (i.e. non-Dutch students) only:
IELTS minimum overall score of 6.5 on the IELTS (where each minimal sub score is 6.0) or equivalent,
Please check the university's website for details and exemptions:
<http://www.utwente.nl/master/how-to-apply/internationaldegree>

The *content-related admission criteria* require that a student possesses and demonstrates evidence on sufficient knowledge and skills concerning the following:

- C. The content of the domain of educational science and technology.
D. Design methodology.
E. Research methodology.
F. Research techniques, including the use of statistics for data analysis.

Ad C. Content of the domain

The domain of Educational Science and Technology can be characterised by the following: a field that encompasses the analysis of learning and performance problems; the design, development, implementation, evaluation, and management of educational and training processes, resources, and arrangements intended to improve learning and performance in a variety of settings. A student meets the domain-specific admission criteria if he/she possesses a Bachelor's or Master's level degree in a domain that is similar or related to the domain of this definition, and/or if he/she has substantial relevant work experience from which he/she has mastered the aforementioned conceptual knowledge.

Ad D. Design methodology

This is a typical content characteristic of all behavioural Bachelor's and Master's programmes in our Behavioral, Management and Social Sciences Faculty, aiming at educating scientific designers. This methodology for systematic problem solving aims to support science-based, systemic approaches and processes for the development, the implementation, and the evaluation of solutions for problems in education and training. To give evidence that a future student has mastered this methodology, he/she has to send us an overview of relevant courses taken and/or reports of systematic design projects he/she has intensively been involved in.

Ad E. Research methodology

This refers to the main concepts, procedures, and methods used in social science research, and which aim at systematic, conceptual (literature) analysis, modes of data collection, data analytical schemes, and procedures for interpretation of findings, in order to better understand social phenomena and processes, and/or to support all levels of making choices in and for social reality. This methodology supports the systematic design, execution and evaluation of research activities. A student's basic mastery of this methodology should be proven by courses which he/she has taken in this area, and/or reports of research projects or activities he/she has been involved in substantially.

Ad F. Research techniques, including the use of statistics for data analysis

This area is dedicated to the skills and understanding of techniques for collection and for analysis of both quantitative and qualitative data. If a student masters this area he/she is both able to apply descriptive statistics (distribution, correlation, regression, cross tabling), theory of probability

(calculation, expectation, variance, binomial distribution), and aspects from inductive statistics (average based conclusions with known population deviation) as well as applying scientific analytical methods in interviews, observation, and questionnaires, analysing texts, and coding text fragments. Experience with the use of SPSS or a comparable computer-based statistical package is part of this mastery. Evidence of this can be presented by content review of courses which he/she has taken, and/or use of these techniques in research, demonstrated by means of a report or an article.

Evaluation of the entrance criteria

The programme's Admission Committee will review the information and documents presented and will decide whether a student meets all stated criteria sufficiently. The Admission Committee comprises of the programme co-ordinator, the study advisor, and the full professor who holds responsibility for the quality of the programme. The latter may delegate his membership to a member of the programme's scientific staff, i.e. to one of the programme's teachers.

Evaluation of these entrance criteria may result in one (1) out of two (2) alternative decisions by the Admission Committee:

1. If a student meets all formal and content-related criteria he/she will be admitted to the EST Master's programme.
2. If a student does not meet the entry requirements, to be decided by the Admission Committee, he/she will be offered the possibility of taking the EST pre-Master's programme. A student may ask for exemptions from one or more units of study of the pre-M trajectory, upon formal enrolment/registration, at the Examination Board.

4b. Language

The language of communication in the MSc programme Educational Science and Technology is English.

This premise requires additional explanation:

- Study materials are in English.
- Classes (lectures, seminars, workshops, practicals, and others) are taught in English.
- Exams and assignments are composed in English and students have to complete all exams and assignments in English.
- Presentations (including the Final Project presentation) have to be prepared in English
- Non-formal (written or oral) communication between a student and an instructor may revert to Dutch in case no non-Dutch students are involved.
- Students are supposed to be aware of the aforementioned rules with regard to the use of English and Dutch.

Note: students who started their EST master's degree programme before 1 February 2013 will be subject to a transitional rule that says that students who master Dutch are allowed to complete their tests and assignments in Dutch as long as no non-Dutch students are involved.

4c. International agreements

Per 1 September 2018 a double degree (DD) programme with Ludwig Maximilians University (LMU) in Munich, Germany will be offered. This 120 EC DD programme is called "Learning Sciences and Technology". The concerned formal contract (signed in Spring 2018 by the executive boards of LMU and the UT) is approved by the EST Examination Board. Full information on this 120 EC DD trajectory (incl. application procedures, and curricula) can be obtained from appendix A.

4d. Elective programme

The programme's elective options can be found in Table 1 (Curriculum EST 2019-2020). Typically, students select four (4) elective courses (5 EC each) out of the set of 10 electives presented.

If so desired, students may opt to fulfil their elective requirements with a maximum of 2 courses (10 EC) that have been approved by the Examination Board for this purpose and are offered by partners in the faculty of BMS. These courses are:

- Global talent management (201500086)
- HRM and innovation (201500087)
- HRM technology design (201500088)

4e. Programme Committee

The programme committee is set up for each programme or group of programmes. The committee has the task to advise on enhancing and guaranteeing the quality of the programme(s).

The members of the EST programme committee are appointed by the Dean. The members are recruited from students and teaching staff of the Educational Science and Technology programme on an equal basis (50% students and 50% staff). The most up-to-date composition of the committee and its formal role and tasks can be found on the webpage of the [programme committee](#).

4f. Examination Board

The Examination Board is the body that determines in an objective and expert way whether a student meets the conditions under the Education and Examination Regulations (EER) concerning the knowledge, comprehension and skills required in order to obtain the Master of Science (MSc) degree. Members of the Examination Board are appointed by the Dean of the Faculty.

The Board's tasks are described in the generic (i.e. non programme-specific) part of the EER. More information, including the most up-to-date composition of the Board can be found on the webpage of the [Examination Board](#).

5. Transitional arrangements

Not applicable.

6. Study advice first year

Not applicable

7. Additional subjects

7a. Specific EST programme demands

Courses to be obtained and exemption from an exam

Students have to take and successfully complete at least for 30 ECs courses. If the Examination Board has granted an exemption from a specific exam (pertaining solely to the level, content and quality of exams or tests previously taken by the student; or knowledge, insight and skills acquired by the student outside of the sphere of university education), then these exemptions do not count for the 30 ECs courses to be obtained. In that case the student has to follow a flexible programme as referred to in Article 7.3h of the Act. The Examination Board assesses whether a flexible programme is

appropriate and consistent within the domain of the EST programme and whether the level is high enough in light of the final attainment targets of the programme.

Validity of test results (sub-grades) Validity of results of a unit of study:

In derogation from the generic rule (Article 4.8.1) that the validity of a result of a unit of study has no limitation, the validity of a result of a unit of study in the EST programme is max. 5 years. If a student would like to have extended the validity of a result of one or more units of study he/she has to send a motivated request to the programme's Examination Board in which the student demonstrates that he/she still possesses the required competences which are connected to the specific unit(s) of study.

In derogation from the generic rule (Article 4.8.2) that (in case of a unit of study consists of elements that are graded separately) each test result (sub-grade) is valid until the end of the ongoing academic year, the subgrades in the EST courses stay valid till the end of the following/subsequent academic year.

However, there is 1 exception; With regard to the EST course Trending Topics in Educational Science and Technology (201200034) the following applies: the grades for the different trending topics assessments stay valid until the end of the following semester in which the course is offered again (Note: the Trending Topics course is offered twice per year). If a student does not pass the course (i.e., complete all trending topics' assessments) the 2nd time, the student loses the grades previously earned for the topics which he/she have passed. Consequently, the student has to re-take the entire course.

7b. Graduation with distinction

If upon sitting the Master's examination, the student has shown evidence of exceptional capability, 'cum laude' (with distinction") will be awarded on the degree certificate.

A student is considered to have exceptional capability if each of the following conditions is met:

- the average mark awarded for the units of study of the Master's examination is at least 8;
- no graded work was re-done;
- in the determination of this average, the units that were not evaluated with a numerical mark or for which an exemption was granted are not considered
- no unit of study was graded less than a 7;
- the mark for the final unit (Final Project) is at least a 9.

In special cases and despite not fulfilling these conditions, a member of the student's *Graduation Committee* is entitled to propose a "Cum Laude" award to the Examination Board.

Besides, the Examination Board will only award a "Cum Laude" designation in case the Final Project has been completed under the supervision of and has been assessed by a faculty's examiner.

The rules applied by the Examination Board can be found in the Rules & Guidelines of the Examination Board. See <https://www.utwente.nl/en/bms/examboard/for-students/>

7c. Pre-Master's programme Educational Science and Technology (EST)

The pre-Master's programme consists of (generic academic and domain-specific) units of study that prepare a student for applied, design or evaluation-oriented, scientific reasoning and research during his/her Master's trajectory Educational Science and Technology.

Therefore, all pre-Master's units of study (to be decided by the Master's programme Admission Committee) must be successfully completed before one can formally begin the Master's programme.

The full pre-master's programme comprises 30 EC.

The pre-Master's programme has two (2) terms of enrolment (September and February).
 Therefore, the following structure applies:

Full-time programme = ½ year = one semester

| September enrolment | | February enrolment | |
|--|-------------------------------|--|-------------------------------|
| Semester 1 | | Semester 2 | |
| Quartile 1A | Quartile 1B | Quartile 2A | Quartile 2B |
| Research Methodology and Descriptive Statistics (5 EC) | Inferential Statistics (5 EC) | Research Methodology and Descriptive Statistics (5 EC) | Inferential Statistics (5 EC) |
| Designing for Learning in Schools and Organisations (5 EC) | Research Studio (10 EC) | Designing for Learning in Schools and Organisations (5 EC) | Research Studio (10 EC) |
| Academic Writing Pre-master (5 EC) | | Academic Writing Pre-master (5 EC) | |
| 15 EC | 15 EC | 15 EC | 15 EC |
| Self-study package EST | | Self-study package EST | |

Part-time programme = 1 year = two semesters

| Semester 1 | | Semester 2 | |
|--|-------------------------------|--|-------------------------|
| Quartile 1A | Quartile 1B | Quartile 2A | Quartile 2B |
| Research Methodology and Descriptive Statistics (5 EC) | Inferential Statistics (5 EC) | Designing for Learning in Schools and Organisations (5 EC) | Research Studio (10 EC) |
| Academic Writing Pre-master (5 EC) | | | |
| 10 EC | 5 EC | 5 EC | 10 EC |
| Self-study package EST | | | |

Registration

The maximum registration period for completing the pre-master's programme is one (1) year.

Note: this applies to part-time students as well.

During this period a student may maximally sit two (2) times for an exam or may maximally submit two (2) times an assignment. In addition, in case he/she fails to pass the 2nd time the exam or fails to complete an assignment within two (2) times, the student will be excluded from the pre-master's programme Educational Science and Technology.

Moreover, a student will not be admitted to the pre-master's programme Educational Science and Technology in case he/she, within the framework of another University of Twente pre-master's programme, already reached the maximum of two sittings for an exam of the following units of study: Research Methodology and Descriptive Statistics, and/or Inferential Statistics.

Language in the pre-master's programme

The language of communication in the pre-master's programme Educational Science and Technology is English.

This premise requires additional explanation:

- Study materials are in English.

Reference: BMS.OSC-7537.JNe
Master OER Programme-specific appendix EST 2019-2020

- Classes (lectures, seminars, workshops, practicals, and others) are taught in English.
- Exams and assignments are composed in English and students have to complete all exams and assignments in English.
- Presentations (including the Final Project presentation) have to be prepared in English
- Non-formal (oral or written) communication between a student and an instructor may revert to Dutch in case no non-Dutch students are involved.
- Students are supposed to be aware of the aforementioned rules with regard to the use of English and Dutch.

Note: the EST pre-master's programme can also be followed as a so-called *transfer minor*, as agreed upon with Dutch Universities of Applied Sciences (HBO)

Reference: BMS.OSC-7537.JNe
Master OER Programme-specific appendix EST 2019-2020

Appendix A: LMU-UT Double Degree contract

See separate document

LMU

LUDWIG-
MAXIMILIANS-
UNIVERSITÄT
MÜNCHEN

ZENTRALE UNIVERSITÄTSVERWALTUNG
REFERAT III.3
INTERNATIONALE ANGELEGENHEITEN



LMU · III.3 · Geschwister-Scholl-Platz 1 · 80539 München

University of Twente
Faculty of Behavioural, Management, and Social Sciences
Prof. Dr. Ton de Jong
Drienerlolaan 5
7550 NB Enschede

THE NETHERLANDS

Contact Person
Ms Andrea Blei

Telefon +49 (0)89 2180-5309
Telefax +49 (0)89 2180-3136

andrea.blei@lmu.de

www.lmu.de/international

Mailing Address:
Geschwister-Scholl-Platz 1
80539 München

München, 8. Januar 2018

Double Master's Degree "Learning Sciences and Technology"

Dear Prof. de Jong,

Enclosed you find the two contracts regarding the Double Master's Degree "Learning Sciences and Technology" in cooperation with LMU, signed by our representative.

We kindly ask you to forward both copies to the person responsible for signing them. Please send one signed copy back to us. The other is for your own files.

Thank you for your cooperation.

Best regards and a happy new year

A handwritten signature in black ink, appearing to read "A. Springer", is written over a horizontal line.

Anna Springer
Assistant to Ms Blei

COOPERATION AGREEMENT FOR THE AWARDING OF A DOUBLE MASTER'S DEGREE (2ND CYCLE)

between the

University of Twente, Enschede, the Netherlands, hereafter referred to as "UT", Faculty of Behavioural, Management, and Social Sciences – BMS, and represented by Mr. Victor van der Chijs, President,

and the

Ludwig-Maximilians-Universität München, Munich, Germany, hereafter referred to as "LMU Munich" and represented by Prof. Dr. Hans van Ess, the Vice President for International Affairs

ARTICLE 1 Scope of the Agreement

- (1) LMU Munich and UT agree to establish an integrated study programme (second cycle), consisting of two full academic years (120 ECTS credits) in the field of Education and Learning Sciences. The name of the programme is: **Learning Sciences and Technology**.
- (2) Students successfully participating in the programme will obtain a double Master's degree: Master Degree in Psychology: Learning Sciences of LMU Munich and a Master degree in Educational Science and Technology of UT.
- (3) It expresses the institutions' desire to participate in this programme and their commitment to its organisation and development for the benefit of the enrolled students.

ARTICLE 2 Student Participation

- (1) Students admitted to the double degree programme will be selected by each institution according to their own criteria and modalities.
- (2) In order to participate in the double degree programme, applicants have to satisfy the academic and admission requirements of both institutions.
- (3) As a general guideline, students will be selected on the basis of academic performance, English language skills and extracurricular experiences, as well as on the demonstration of strong motivation to participate in the programme.
- (4) The programme coordinator at each institution (see article 11) is responsible for the nomination of the selected students at the partner university.
- (5) Both institutions have the right not to accept the students selected by the partner on the basis of their academic performance or missing requirements for the overall admission at the institution.

- (6) The partners agree to accept up to 5 students each per academic year unless otherwise agreed by both parties.

ARTICLE 3

Student Enrolment and Tuition Fees

- (1) Students in the double degree programme enrol and are registered at both institutions as follows:

Option A: October (read: Winter) enrolment starting at LMU:

- During semester 1 and 2 students enrol and are registered at LMU Munich in the MSc Programme Psychology: Learning Sciences,
- During semester 3 students enrol and are registered at the UT in the MSc Programme Educational Science and Technology. The status at LMU Munich will be “beurlaubt” (leave of absence semester, upon student request). In this case no re-application for semester 4 is needed.
- During semester 4 students enrol and are registered at both universities

Option B: February (read: Summer) enrolment starting at UT:

- During semester 1 students enrol and are registered at the UT in the MSc Programme Educational Science and Technology
 - During semester 2 and 3 students enrol and are registered at LMU Munich in the MSc Programme Psychology: Learning Sciences
 - During semester 4 students enrol and are registered at both universities
- (2) For enrolment the selected students have to apply individually according to the administrative requirements, regulations and deadlines of the institutions (see annex 1). The partners inform each other about any changes.
- (3) Students participating in the double degree programme pay the (tuition) fees at the institution(s) where they are enrolled and registered - according to the legal requirement of the respective institution. Students are responsible for the costs of sufficient health care according to the national legislations of the host country and any social fees which are non-waivable.
- (4) At LMU Munich, all students are required to pay a mandatory fee for student services (Grundbeitrag) and for basic off-peak public transport (“Semesterticket”). This fee is charged at the beginning of each semester by LMU Munich on behalf of the Munich Student Services (Studentenwerk”).

ARTICLE 4

Study programme, Assessment, Transcript of Records, Recognition

- (1) The full double degree study programme will comprise four (4) semesters, in total 120 ECTS credits, starting either in the Winter semester (see: Option A, article 3.1 of this agreement) or in the Summer semester (see: Option B, article 3.1 of this agreement). Full information can be obtained from Annex 1 to this agreement.
- (2) The student has to follow the official exam and degree regulations of both institutions.
- (3) Exams and eventual re-sits take place at the course offering institution.
- (4) Both institutions issue a Transcript of Records.
- (5) Successfully completed courses will be recognized on the basis of the Transcript of Records by both partners.

- (6) The study programmes/curricula as in Annex 1 can be modified by mutual consent of the partners by means of the exchange of written notice, without detriment to students already enrolled.

ARTICLE 5

Degree awarding

- (1) Students successfully participating in the programme and fulfilling all administrative requirements will be awarded the following degrees:
- LMU Munich: MSc Psychology: Learning Sciences
 - UT: MSc Educational Science and Technology
- (2) Each student will receive a Transcript of Records and a Diploma Supplement.
- (3) The degree holder is entitled to use by choice either the LMU Munich or the UT form of the degree, but not both simultaneously.

ARTICLE 6

Quality assurance

- (1) Internal quality assurance system, internal review. Both programmes comply with the quality assurance procedures and policies as stipulated at LMU Munich and the UT. Courses are regularly evaluated with students' evaluation questionnaires, and these evaluations are taken into consideration in the yearly evaluation of the teaching staff and the programme's quality.
- (2) External quality assurance; accreditation. Both programmes are subject to the respective national quality assessment agencies, and registered in the respective central registers for higher education programmes.

Article 7

Student failure

- (1) If a student fails to complete their second year at UT, they have an option to return and finish their study at LMU Munich. UT will issue a participation certificate that mentions the UT courses which have been completed successfully by the student and his/her study results. Those courses and grades can be transferred to the LMU Munich systems and used for study completion.
- (2) If a student who failed the second year at UT successfully completes the second year at LMU Munich according to the existing legal requirements at LMU Munich, he/she will only be awarded the LMU Munich Master's degree.

ARTICLE 8

Student counselling, welfare and housing

- (1) Students may enjoy all the usual rights and privileges of students of each institution i.e. access to libraries, computing facilities and student cafeterias.

- (2) The programme coordinators of the partner institutions are responsible for informing and helping the selected students with the administrative steps and counselling them on all academic matters.
- (3) On request, the programme manager will assist in finding adequate housing. The institutions do not guarantee student housing.

ARTICLE 9

Insurance obligation

- (1) LMU Munich confirms that its fully enrolled students are insured against any accident, incurred within the institution buildings and related to their study at the university, but students are responsible for their own health coverage and it is in their responsibility to take out an insurance against any incident that may occur during their period of study abroad for the activities concerned by this Agreement, and for legal liability against damage which they may involuntarily cause to third parties (persons or their properties).
- (2) The UT has a third party liability insurance that covers all damage and harm caused by UT staff members, students, trainees, temp workers, guest lecturers, etc. to themselves or others when performing any work on the instructions of the UT. Students who are insured under the national health insurance scheme of an EU/EEA member state or Switzerland, can receive a European Health Insurance Card (EHIC) from their insurance company. As long as students do not have paid work or an internship in the Netherlands, additional health insurance is not required. An EHIC is valid for a limited time only, and does not include cover for luggage, liability or legal aid. If students are not insured under the national health insurance scheme of an EU/EEA member state or Switzerland, they can apply for insurance at a Dutch insurance company, e.g. at AON Nederland. Non-EU/EEA students will be guided by the UT International Office in arranging health and liability insurance before arrival.

ARTICLE 10

Staff Exchange

- (1) Academic staff of the two partner universities will strive for deeper academic cooperation. Staff exchanges will take place on the basis of written invitations in which the details of the exchanges will be determined. Wherever possible the principle of reciprocity should be respected. Joint research projects shall be supported by appropriate means. It is thereby understood that the partner universities will incur no financial liabilities.

ARTICLE 11 Programme Management

(1) Each institution will designate a programme coordinator to develop and manage the organisation of the agreed programme. The programme coordinators are as follows:

| | |
|--|--|
| Programme Coordinator University of Twente | Programme Coordinator LMU Munich |
| Prof. Dr. Ton de Jong | Prof. Dr. Anne Frenzel |
| Faculty of Behavioural, Management, and Social Sciences | Faculty of Psychology and Educational Sciences |
| Drienerlolaan 5 7550 NB Enschede THE NETHERLANDS | Leopoldstraße 13 80802 München GERMANY |
| a.j.m.dejong@utwente.nl (+ 31-53-489-3613) | frenzel@psy.lmu.de (+49- 89 - 2180 - 72557) |

Each institution will additionally nominate a programme manager for the administrative issues. The programme managers are as follows:

| | |
|--|---|
| Programme Manager University of Twente | Programme Manager LMU Munich |
| Jan Nelissen | Carolin Schwab, MSc |
| Faculty of Behavioural, Management, and Social Sciences | Faculty of Psychology and Educational Sciences |
| Drienerlolaan 5 7552 NB Enschede THE NETHERLANDS | Leopoldstraße 13 80802 München GERMANY |
| j.m.j.nelissen@utwente.nl + 31-53-489-3588 | masterlearningsciences@psy.lmu.de + 49- 89-2180-72515 |

(2) The main roles of Programme Coordinator are defined as follows:

- Ensuring the quality process of the programme
- Designing, monitoring and keeping up-to-date the pedagogical framework of the programme
- Validating the financial aspects of the programme

(3) The main role of the Programme Manager is defined as follows:

- Assisting students in administrative and academic matters (i.e. admission, housing, study programmes, transcript of records)

ARTICLE 12

Programme Evaluation

- (1) The partners will consult each other when appropriate, in order to evaluate the programme after 2 years, to draw up a report about the ongoing initiatives and to elaborate on other cooperation programmes.

ARTICLE 13

Promotion and Use of Names and Logos

- (1) Each institution commits itself to promote the programme within its institution and in its country.
- (2) Each institution may use the logos, names and other trademarks of the other partner(s) only in the context of the programme. Each party anticipates the other party's participation in press announcements, marketing and other reasonable promotional activities involving the double degree programme through the appropriate use of the logos, names and trademarks of the parties.

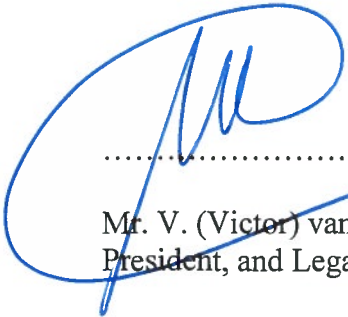
ARTICLE 14

Renewal, Termination and Amendment

- (1) This agreement shall remain in force for a period of five years from the date of the last signature. The agreement may be amended or extended for another five years by mutual written consent of the two parties.
- (2) The agreement may be terminated without detriment to students already enrolled by either party giving six months' notice to the other party in writing, unless an earlier termination date is mutually agreed upon.
- (3) If the agreement is terminated neither party shall be liable to the other for any monetary or other losses that may result.

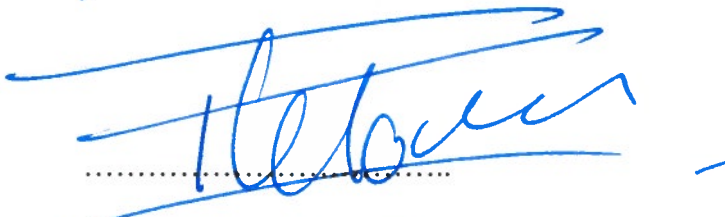
Signed on 8-2-2018 [Date]

For University of Twente



.....

Mr. V. (Victor) van der Chijs,
President, and Legal Representative



.....

Prof. dr. T.A.J. (Theo) Toonen,
Dean Faculty of Behavioural, Management, and Social Sciences

Duly noted by

The International Office



.....

Ir. S.D.E. (Simone) Oolhorst
International Office

Signed on 3/12/2017 [Date]

For Ludwig-Maximilians-Universität München



Prof. Dr. Hans van Ess
Legal Representative



Prof. Dr. Annette Leonhardt
Dean, Faculty of Psychology and Educational Sciences

Duly noted by

International Affairs



Dr. Stefan Lauterbach
International Office

Annex 1
Programme Specification:

Academic Aspects:
Modules, ECTS credits and Master's Thesis

| | |
|---|---|
| <p>P 1 Introduction to Psychology of Development, Learning and Excellence P 2 Evaluation and Research Methods P 3 Assessment and Diagnostic Methods P 4 Transferable Skills P 5 Educational Perspectives in the Learning Sciences P 6 Internship Module WP 1 Learning in Specific Domains I WP 2 Clinical Psychology I WP 3 Cognition, Emotion, Learning and Development WP 4 Learning, Instruction, Training and Technology</p> | <p>WP 5 Psychology of Excellence <i>WP5.1 Educational Systems and Achievement</i> <i>WP5.2 Psychological Counseling in Educational Contexts</i> WP 6 Learning in Specific Domains II WP 7 Clinical Psychology II P 7 Final Module <i>P7.1 Empirical Research Designs</i> <i>P7.2 Master Colloquium</i> <i>P7.3 Master Thesis</i></p> <p>UT courses taken at the University of Twente as specified below (page 10 and 11 of this agreement)</p> |
|---|---|

Option A: Winter enrolment

| 1st Semester - winter | | LMU | 30 ECTS |
|---|--------|---|---------|
| LMU Munich | P1.1 | Introduction to Cognition, Emotion, Learning and Development | 15 |
| | P1.2 | Introduction to Learning, Instruction, Training and Technology | |
| | P1.3 | Introduction to Psychology of Excellence | |
| | P1.4 | Introduction to Neuro-Cognitive Aspects of Learning and Development | |
| | P1.5 | Introduction to Approaches in Organizational Learning | |
| LMU Munich | P2.1 | Measuring Learning and Change - Part 1 | (6) |
| LMU Munich | P3.1 | Educational and Psychological Assessment and Testing – Part I | (6) |
| LMU Munich | P4.1 | Transferable Skills for the Learning Sciences | 3 |
| 2nd Semester - summer | | LMU | 30 ECTS |
| LMU Munich | P2.2 | Measuring Change and Learning – Part II | (6) |
| LMU Munich | P3.2 | Educational and Psychological Assessment and Testing – Part II | (6) |
| LMU Munich | P5.1 | Educational Systems and Achievement | (3) |
| LMU Munich Elective Compulsory (2 out of 3) | WP3.1 | Special Issues in Cognition, Emotion, Learning and Development | (5) |
| | WP 4.1 | Special Issues in Learning, Instruction, Training and Technology | (5) |
| | WP 5.1 | Special Issues in Psychology of Excellence | (5) |

| | | | |
|--|----------|---|---------|
| LMU Munich Elective Compulsory (1 out of 4) | WP 1.0.1 | Learning in Biology | 3 |
| | WP 1.0.2 | Learning in Mathematics | 3 |
| | WP 1.0.3 | Learning in Language | 3 |
| | WP 2.1 | Developmental Psychopathology | 3 |
| 3rd Semester - winter | | Twente | 30 ECTS |
| LMU Munich Elective Compulsory (1 out of 3) | WP3.2 | Assessment and Test Procedures in Cognition, Emotion, Learning and Development (Remote Participation) | (5) |
| | WP4.2 | Assessment and Test Procedures in Learning, Instruction, Training and Technology (Remote Participation) | (5) |
| | WP5.2 | Assessment and Test Procedures in Psychology of Excellence (Remote Participation) | (5) |
| <i>(replaces P6)</i> | UT | Trending Topics in Educational Science and Technology | 10 |
| UT Elective Compulsory (3 out of 5) <i>(replaces P5.2, WP3/4/5.2 and WP6 / WP7)</i> | UT | Team Learning at Work | 5 |
| | UT | HRD & Technology in a Live Context | 5 |
| | UT | Designing Learning and Performance Support | 5 |
| | UT | Assessing, Monitoring and Improving Student and School Performance | 5 |
| | UT | Learning and Instruction | 5 |
| 4th Semester - summer | | Twente | 30 ECTS |
| UT Elective Compulsory (1 out of 5) <i>(replaces P7.1 and P7.2)</i> | UT | Regulation and Facilitation of Workplace Learning | 5 |
| | UT | Leadership and Organizational Change | 5 |
| | UT | Innovative Technology-Based Learning Environments | 5 |
| | UT | Teacher Learning and Development | 5 |
| | UT | Learning and Instruction | 5 |
| <i>(replaces P7.3)</i> | UT | Final Project | 25 |

Option B: Summer enrolment

| 1st Semester - summer | | Twente | 30 ECTS |
|--|------|---|---------|
| <i>(replaces P6)</i> | UT | Trending Topics in Educational Science and Technology | 10 |
| UT Elective Compulsory (4 out of 5) <i>(replaces P5.2, P7.1, P7.2, WP3/4/5.2 and WP6 / WP7)</i> | UT | Team Learning at Work | 5 |
| | UT | HRD & Technology in a Live Context | 5 |
| | UT | Designing Learning and Performance Support | 5 |
| | UT | Assessing, Monitoring and Improving Student and School Performance | 5 |
| | UT | Learning and Instruction | 5 |
| 2nd Semester- winter | | LMU | 30 ECTS |
| LMU | P1.1 | Introduction to Cognition, Emotion, Learning and Development | 15 |
| | P1.2 | Introduction to Learning, Instruction, Training and Technology | |
| | P1.3 | Introduction to Psychology of Excellence | |
| | P1.4 | Introduction to Neuro-Cognitive Aspects of Learning and Development | |
| | P1.5 | Introduction to Approaches in Organizational Learning | |
| LMU | P2.1 | Measuring Learning and Change - Part 1 | (6) |
| LMU | P3.1 | Educational and Psychological Assessment and Testing – Part I | (6) |
| LMU | P4.1 | Transferable Skills for the Learning Sciences | 3 |

| 3rd Semester - summer | | LMU | 30 ECTS |
|---|----------|---|---------|
| LMU | P2.2 | Measuring Change and Learning – Part II | (6) |
| LMU | P3.2 | Educational and Psychological Assessment and Testing – Part II | (6) |
| LMU | P5.1 | Educational Systems and Achievement | (3) |
| LMU Elective Compulsory (2 out of 3) | WP3.1 | Special Issues in Cognition, Emotion, Learning and Development | (6) |
| | WP 4.1 | Special Issues in Learning, Instruction, Training and Technology | (6) |
| | WP 5.1 | Special Issues in Psychology of Excellence | (6) |
| LMU Elective Compulsory (1 out of 4) | WP 1.0.1 | Learning in Biology | 3 |
| | WP 1.0.2 | Learning in Mathematics | 3 |
| | WP 1.0.3 | Learning in Language | 3 |
| | WP 2.1 | Developmental Psychopathology | 3 |
| 4th Semester - winter | | Twente | 30 ECTS |
| LMU Elective Compulsory (1 out of 3 – remote participation) | WP3.2 | Assessment and Test Procedures in Cognition, Emotion, Learning and Development (Remote Participation) | (5) |
| | WP4.2 | Assessment and Test Procedures in Learning, Instruction, Training and Technology (Remote Participation) | (5) |
| | WP5.2 | Assessment and Test Procedures in Psychology of Excellence (Remote Participation) | (5) |
| <i>(replaces P7.3)</i> | UT | Final Project | 25 |

Note:

Supervision of the Final Project/Master's Thesis will typically be executed jointly by LMU Munich and UT staff (first supervisor preferably at UT, second supervisor at LMU).

Administrative Aspects:

Language of instruction is English. A minimum English proficiency level of B2 (Common European Framework of Reference or equivalent) has to be proven during the application process.

Admission requirements for the programme:

http://www.en.mcls.lmu.de/study_programs/master/application/index.html

A certificate of German knowledge is not necessary.

Application deadlines:

For Winter enrolment:

LMU Munich: March 1st (Programme), July 15th (International Office)

UT: May 1st (Visa students), or July 1st (non-Visa students)

For Summer enrolment:

UT: November 1st (Visa students), or January 1st (non-Visa students)

LMU Munich: March 1st (Programme), July 15th (International Office)