

TEACHING AND EXAMINATION REGULATIONS

(OER)

(see article 7.13 and 7.59 of the Higher Education and Research Act)

Bachelor's programme Creative Technology

Faculty of Electrical Engineering, Mathematics and Computer Science

University of Twente

The Faculty Dean,

in view of section 9.15, first subsection, under a, 7.13, first and second subsections, 9.38, subsection b, and 9.18, first subsection, under a, of the Higher Education and Research Act of the Netherlands,

having heard the recommendations of the involved Education Committees and the involved Faculty Council ¹

hereby establishes Teaching and Examination Regulations for the Creative Technology programme.

¹ Recommendations of Committees and Councils may apply to provisions under subsections a-g of section 7.13 of the Act. Consent of the Councils applies to the provisions under other subsections.

Remarks

These Teaching and Examination Regulations for the Bachelor's programme Creative Technology follow the rulings issued by the University's Executive Board.

Contents

Section 1 General	1
Article 1 - Terms and Definitions.....	1
Article 2 - Programme Content	2
Article 3 - Final Attainment Targets of a Programme	2
Article 4 - Admission to the Programme	2
Article 5 - Study Plan	3
Article 6 - Student Supervision.....	3
Article 7- Studying with a Disability	4
Section 2 Exams	4
Article 8 - Registration, Frequency and Periods.....	4
Article 9 - Oral Exams	5
Article 10 - Validity of Exams.....	5
Article 11 - Confirmation and Publication of the Results.....	5
Article 12 - Right of Inspection and Justification.....	5
Article 13 - Administrative Errors.....	6
Section 3 Exemptions and flexible programme	6
Article 14 - Exemption from an Exam or Practical Exercise	6
Article 15 - Flexible Programme.....	6
Section 4 Examinations	6
Article 16 - Programme Examinations	6
Article 17 - Periods, Frequency of Examinations and Issuing of Certificates	7
Article 18 - Degree	7
Section 5 Appeals and objections	7
Article 19 - Individual Appeals and Objections	7
Section 6 Conflicts, changes and implementation	7
Article 20 - Conflicts with these Regulations	7
Article 21 - Amendments to the Regulations.....	7
Article 22 - Transitional Arrangements	8
Article 22a - Assessment of the Education and Examination Regulations.....	8
Article 23 - Publication	8
Article 24 - Date of Commencement	8
Appendix to the Teaching and Examination Regulations of the Bachelor's programme Creative Technology	1
a. Programme and examinations.....	2
b. Specializations.....	7
c. The programme's final qualifications	7
d. Practicals	8
e. Study load	8
f. Master's programmes.....	8
g. Provisions for part-time students	8
h. The conditions of admission to units of study and interim examinations.....	8
i. Transitional arrangements.....	9
j. The language of the programme, and language proficiency conditions for admission	9

Section 1 General

Article 1 - Terms and Definitions

The terms and definitions described in this document are understood to have the same meaning as they have in the Higher Education and Research Act (hereinafter 'the WHW'), insofar as they occur in this act.

The following terms and definitions apply to this regulation:

Dean:	Head of the faculty.
EB:	Executive Board of the University of Twente.
EC:	European Credit (EC), a credit point of 28 hours as described in the WHW.
ECTS:	European Credits Transfer System: European agreements have been reached on a joint system for expressing student study load; the study load of an academic year is 60 European Credit points, or 1680 hours (see article 7.4 of the WHW).
Examination:	A test, whereby the Examination Board determines, in accordance with article 7.10 of the WHW, whether all requirements with regard to the first-year or Bachelor's examination have been met.
Examination Board:	The programme Examination Board is appointed by the Dean in accordance with article 7.12 of the WHW.
Examiner:	The individual who, in line with article 7.12, paragraph 3 of the WHW, has been appointed to hold the exams.
Authorized Proof of Result:	An authorized proof of result is a list or other written document initialled by or on behalf of an Examiner, or a result published via the Student Information System (SIS).
Institution:	University of Twente.
Unit of Study:	A unit of study in a programme as described in article 7.3, paragraphs 2 and 3 of the WHW, or a practical exercise.
Programme:	The Bachelor's programme as described in the appendix to the Education and Examination Regulations.
Study Programme:	A study programme consists of units of study and the associated exams.
Practical Exercise:	A practical exercise, as described in article 7.13 paragraph 2 under d of the WHW, is a unit of study or part of a unit of study, whereby the emphasis is placed on the student's activities, such as: <ol style="list-style-type: none">1. carrying out literature research, an assignment or a preliminary design, writing a thesis, article or 'position paper', or giving a presentation in public;2. carrying out a design or research assignment, doing tests and experiments, participating in practicals, practising skills;3. following an internship, taking part in field work or an excursion;

	4. participating in other educational activities deemed as necessary and aimed at achieving the required skills.
Student:	Anyone registered with a programme in accordance with article 7.34 and 7.36 of the WHW.
Student Information System (SIS):	Web application authorized by the Board of the university for registration and for providing information on all relevant data on the students and the university, as described in the WHW.
Student Counsellor:	Person appointed by the Board of the university who acts as point between the student and the university as described in article 7.34, paragraph 1 d of the WHW.
Student Adviser:	Person appointed by the Dean who acts as contact between the student and the university, and in this role represents the interests of the students, as well as fulfilling an advisory role.
Academic Year:	The term that starts on 1 September and ends on 31 August of the following year. The academic year is 60 ECs or 1680 hours.
Study Plan:	A plan prepared by the students describing their study programme itinerary.
Study Rate:	Number of ECs achieved in a certain period divided by the number of ECs that can nominally be achieved in this period.
Exam:	An evaluation of the knowledge, insight and skills of the student in relation to the unit of study, as well as the testing of these by at least one Examiner appointed by the Examination Board.
UT:	University of Twente
Working day:	Any day from Monday to Friday with the exception of official holidays and the prearranged 'bridging days' (<i>brugdagen</i>) on which the staff are free.
Act:	The Higher Education and Scientific Research Act (WHW), in the Dutch Bulletin of Acts, Orders and Decrees, number 593, and as amended since.

Article 2 - Programme Content

1. The items as described in article 7.13, paragraph 2, a to j and l of the WHW are laid out in the specific appendix of each programme.
2. The programme-specific appendices are an integral part of these regulations.

Article 3 - Final Attainment Targets of a Programme

The goals and final attainment targets (article 7.13 paragraph 2 sub c of the WHW) are described in the specific programme appendices.

Article 4 - Admission to the Programme

To be admitted to the programme, both language proficiency and prior education requirements must be met. The language proficiency requirements for admission are in the programme appendix. The requirements with regard to prior education for enrolment in a university programme must be met in accordance with the WHW, article 7.24, and article

7.25 on additional entry requirements, article 7.28 on exemption on the basis of other diplomas and article 7.29 on exemption on the basis of successfully completed entrance exams.

Article 5 - Study Plan

1. The student is required to submit a study plan for a semester prior to the start of this semester. The deadline for submitting the study plan is communicated to the student by the Dean of the programme in due time.
2. The study plan for the first semester of the first year of study comprises at least the components of the curriculum of the first semester of the first year of study on the programme.
3. After the deadline as described in paragraph 1 above, second sentence, the student can change the study plan in consultation with the Student Adviser.
4. Every student receives advice from the Student Adviser on the study plan they have submitted.

Article 6 - Student Supervision

1. The Dean is responsible for student supervision, among others to inform the student of study opportunities within and without the programme. The Dean has given a mandate to the Programme Director of the programme to execute the tasks of student supervision.
2. Each student is appointed a Student Adviser.
3. The Student Adviser supervises the student and offers advice on study-related matters, as well as personal problems if the student so desires. The Student Adviser also advises the student on facilities for specialized supervision within and without the university.
4. Within 20 working days of publication of the results of the 1st semester, the Student Adviser provides the student with a student progress evaluation in anticipation of the expected evaluation for the end of the first year. The performance and circumstances of the student are taken into account.
5. Each student receives a written student progress evaluation, at the latest by the end of the first year of registration with the programme, on the continuation of his/her studies within or without the programme. This evaluation is based on the results achieved and the advice of the Student Adviser.
6. If a student wishes to make use of his/her right to specific supervision or facilities, they must contact the Student Adviser. The Student Adviser records the agreements with the student in the SIS, from which agreements rights may be derived.
The following applies to special facilities:
 - a. Students who fall behind in their studies through demonstrable circumstances beyond their control or personal circumstances have the right to request extra supervision or facilities.
 - b. The right to the aforementioned supervision or facilities concerns the right to additional individual student supervision. This includes dispensation from participation in programme components and/or the use of special facilities, if necessary and possible. Such dispensation and special facilities can only be granted by the Examination Board.

Article 7- Studying with a Disability

1. A disability is a protracted physical, sensory or other functional disorder that might limit the student's academic progress.
2. The extra facilities considered most effective for the student in question are discussed in an interview with the Student Adviser and/or the Student Counsellor. The extra facilities are intended to safeguard the student's achievement of the final attainment targets.
3. On the basis of the interview described in paragraph 2, the student submits a written application for the facilities in consultation with the Student Adviser.
4. The application is submitted to the Dean, preferably three months before the student is to participate in classes, exams and practical exercises for which the facilities are required.
5. The application is supported by documents that can reasonably be requested in support of the application (such as a doctor's or psychologist's letter or, in case of dyslexia for example, a report by a testing bureau registered with BIF, NIB or NVO).
6. The Dean makes a decision, within 20 working days of receipt of the application, or as earlier as the urgency of the application necessitates it, on the validity of the application as described in paragraph 3, and informs the student and the Student Adviser of his/her informed decision.
7. Should the Dean turn down the application in full or in part, the Dean will inform the student of the justification for this rejection and the possibilities for making an objection and an appeal. An objection must be submitted to the Dean within six weeks of notice of the decision. An appeal can be made by the entitled party, within six weeks of the decision on the objection, at the Administrative Law section of the Court in the district where the entitled party is a registered inhabitant.
8. Should extra facilities be granted, it will be stated for what period this grant will apply. The applicant and the Student Adviser will evaluate the facilities before the end of this period. During this evaluation parties will discuss the effectivity of the facilities provided and whether they should be continued.

Section 2 Exams

Article 8 - Registration, Frequency and Periods

1. The student is responsible for registering and deregistering for exams.
2. Each year, two separate opportunities are offered for taking a written or oral exam associated with a specific unit of study. Practical exercises can be completed at least once per year. The rules for participating in a practical exercise are communicated at the start of said exercise.
3. If a student fails to achieve a mark of 6 or higher after two assessments of a unit of study, and the student wishes another opportunity to sit this exam, an application must be made to the Examination Board. This application must be accompanied by a plan of action, which will be drawn up by the student in consultation with the Examiner of the unit of study in question and the Student Adviser. The Examination Board decides whether or not to grant the application.

4. Under the authority of the Examination Board, at least one month before the start of the semester the exam timetable for that semester is published with the dates and times of the exams.
5. In certain cases the Examination Board can deviate from the number of times and the manner in which exams can be taken.
6. An exam can only be moved to another time slot than indicated in the exam timetable with the permission of the Examination Board.

Article 9 - Oral Exams

Oral exams are taken in public, unless the Examination Board decides otherwise due to extraordinary circumstances. If third parties are to be present at an oral exam, the Examination Board makes this known to the Examiner and the student prior to the exam.

Article 10 - Validity of Exams

1. An exam result is valid for a period of six years.
2. The student can submit a request to the Examination Board to have the validity of an exam result extended. The Examination Board will provide a written justification in the case that it turns down this request.

Article 11 - Confirmation and Publication of the Results

1. The result of a written exam or practical exercise is published via the SIS within 20 working days.
2. The result of an oral exam is made known within one working day in the form of an authorized proof of result provided by the Examiner.
3. Should the Examiner not be able to meet the term as described in paragraphs 1 and 2 due to extraordinary circumstances, he/she reports this with reasons to the Examination Board. The student is informed of the delay as soon as possible by the Examination Board whereby the new term within which the result will be made known is also communicated. If the Examination Board is of the opinion that the Examiner has not met his/her obligations, it may appoint another Examiner to ascertain the result of the exam.
4. If a second exam is planned shortly after the first, the results of the first exam will be published at least ten working days prior to the second exam.
5. If a student receives more than one authorized result for one and the same unit of study, the highest result will apply.

Article 12 - Right of Inspection and Justification

1. During a period of at least 20 days following publication of the results, the student may inspect the work subject to the assessment at his/her request.
2. As a departure from paragraph 1, the Examiner may determine that inspection of the work is only possible at certain dates and times, without prejudice to the student's right of inspection should the student not be able to attend at these dates and times due to circumstances beyond his/her control.
3. The Examiner will justify the individual assessment of the students exam at the student's request.

4. The Examiner responsible for the assessment of a student's written exam is also responsible for ensuring that this work is stored for at least two years, following publication of the results, in the applicable chair's or department's administration. After this period the work in question may be destroyed.
5. During a period of two years, the student has the right to inspect an exam taken by him/herself in order to prepare for a resit and/or to ascertain which standards were applied to come to the assessment of said exam.

Article 13 - Administrative Errors

If, following the publication of an exam result, a marks sheet, or an overview of a student's progress, an alleged error is discovered, the discoverer, be it the university or the student, is required to make this known to the other party immediately upon finding the error and to cooperate with rectification of the error.

Section 3 Exemptions and flexible programme

Article 14 - Exemption from an Exam or Practical Exercise

1. The Examination Board can, at a student's request, grant that student exemption from an exam or practical exercise. If applicable, the Examiner in question may be consulted first.
2. The grounds under which the Examination Board can grant exemption from a specific exam pertain 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.
3. Students may also be exempted from assignments or practical exercises by the Examination Board if they can demonstrate that a specific assignment or practical exercise, or the execution of such assignment or exercise, will likely place them before a moral dilemma. In such a case the Examination Board decides whether the practical exercise or assignment can be carried out in another manner to be determined by it.

Article 15 - Flexible Programme

The Examination Board of a programme decides whether a student may follow a flexible programme as described in article 7.3c of the WHW. The Examination Board assesses whether a flexible programme is appropriate and consistent within the domain of the programme and whether the level is high enough in light of the final attainment targets of the programme.

Section 4 Examinations

Article 16 - Programme Examinations

1. The programme has a first-year examination (propaedeuse) and a Bachelor's examination.
2. The first year of study at the programme is known as the propaedeutic phase and has a study load of 60 ECs.

3. The Bachelor's programme has a study load of 180 ECs.

Article 17 - Periods, Frequency of Examinations and Issuing of Certificates

1. The Examination Board confirms the results of the first-year exams and the Bachelor's exams at least twice per year.
2. The periods during which examination results will be confirmed are published at the start of the academic year. The exact dates are published at least ten weeks prior to the confirmation of the results.
3. Students who wish to receive a certificate must apply to the Examination Board no more than four weeks prior to the confirmation of the results.

Article 18 - Degree

Participants who have successfully met all requirements for the Bachelor's examination are awarded a Bachelor of Science (BSc) degree.

Section 5 Appeals and objections

Article 19 - Individual Appeals and Objections

1. An appeal against a decision of the Examination Board or an Examiner can be made to the Board of Appeal for Examinations within four weeks of the decision being communicated to the student in question.
2. Objections to decisions made by the Dean on the grounds of this regulation must be submitted to the Dean within six weeks of notice of the decision.

Section 6 Conflicts, changes and implementation

Article 20 - Conflicts with these Regulations

If other additional regulations and/or provisions pertaining to education and/or examinations conflict with these Education and Examination Regulations, the present Education and Examination Regulations take precedence.

Article 21 - Amendments to the Regulations

1. Amendments to these Education and Examination Regulations are determined by the Dean in a separate decree.
2. In principle, amendments to these regulations do not apply to the current academic year. Amendments to these regulations may apply to the current academic year if the interests of the students' are not prejudiced within reasonable bounds, or in situations of force majeure.
3. Amendments to these regulations have no effect on earlier decisions of the Examination Board.

Article 22 - Transitional Arrangements

1. In case of amendment of these Education and Examination Regulations, the Dean may decide on a transitional arrangement with a predetermined period of validity.
2. The transitional arrangement is an integral part of these regulations as described in paragraph 1.
3. The following matters are in any case described in the transitional arrangement dependent on the nature of the amendments:
 - a. the manner in which existing and valid results of units of study are recalculated in the amended programme;
 - b. the manner in which an assessment can be provided for a lapsed unit of study, with the exception of practicals and projects, with the understanding that at least two opportunities are offered to take an exam on the lapsed unit of study in the academic year following the year in which the unit of study was offered for the last time;
 - c. the manner in which a practical or project can be followed and assessed after it has lapsed as a unit of study.
4. In certain circumstances the Examination Board can deviate from the transitional arrangement as described in paragraph 1 if this is to the students' advantage.

Article 22a - Assessment of the Education and Examination Regulations

The Programme Director, under mandate by the Dean, is responsible for the regular review of the Education and Examination Regulations and takes into account the resultant study load for the students to enable this to be monitored and adjusted if necessary.

In accordance with article 9.18 of the WHW, the Board of Studies is responsible for issuing an advice on the Education and Examination Regulations as well as the annual assessment of the manner in which the Education and Examination Regulations are executed.

Article 23 - Publication

The Education and Examination Regulations and the associated appendices are published via the website of the university and the programme in question.

Article 24 - Date of Commencement

1. The date of commencement of these regulations is 1 September 2010.
2. The Education and Examination Regulations apply to all students registered with the programme.

Appendix to the Teaching and Examination Regulations of the Bachelor's programme Creative Technology

The regulations in this appendix are part of the teaching and examination regulation of the bachelor's programme Creative Technology of the Faculty of Electrical Engineering, Mathematics and Computer Science of the University of Twente.

Contents

a.	Programme and examinations.....	2
	Table 1: the first year – the propedeuse	2
	Table 2: the second year.....	4
	Table 3: the third year	5
	Categories	5
	Options and electives	6
	The nature of teaching activities and assessment.....	6
b.	Specializations.....	7
c.	The programme's final qualifications	7
d.	Practicals	8
e.	Study load	8
f.	Master's programmes	8
g.	Provisions for part-time students	8
h.	The conditions of admission to units of study and interim examinations.....	8
j.	Transitional arrangements.....	9
k.	The language of the programme, and language proficiency conditions for admission	9

a. Programme and examinations

The student passes the propedeuse (first year's) examination by completing² the units of study of table 1.

The student passes the Bachelor's examination by passing the propedeuse examination, and completing the units of tables 2 and 3. The student's choice of options and electives must meet the requirements of the subsection Options and electives of this section.

The Examination Board may decide that students pass their examination even if some results are insufficient. The rules set by the Examination Board for passing examinations are in the Rules for Assessment and Examination.

The Examination Board may grant students permission to deviate from the requirements of subsection *Options and electives* when choosing their options and electives.

² To complete a unit means to pass the unit's assessment with a sufficient result. The tutoring unit is no exception to this rule. The tutor issues assessment reports for the Examination Board's audit.

Table 1³⁴: the first year – the propeduse

	category	study load in EC	teaching activities	assessment	prerequisites
196700610 We Create Identity	CA	3	LPIpG		-
196700620 Living and Working Tomorrow	CA	6	LPIpG		-
196700630 Have Fun and Play!	CA	6	LPIpG		-
196700510 Creative Exploration of Structures	CE	2			-
196700210 Sketching for CreaTe	DE	2	Llp		-
196700220 Graphic Design	DE	2	LPpl		-
196700230 Designing in Context	DE	2	LPpl		-
196700240 Human Factors	DE	3			-
196700110 Smart Environments	ST	3	LPIpG		
196700120 Dynamical systems	ST	6	LI		
196700010 Web technology	NM	3	LPIp		
196700020 Interactive Visualization	NM	5	LPIp		
196700410 Introduction to Computer Science	CS	3	LPIG		-
196700420 Programming for Creative Technology	CS	5	Llp		-
191567010 Motion and Modelling	MA	3	LI		-
191567020 Systems and Signals	MA	3	LI		-
191567030 Introduction to Statistics and Probability	MA	3	LI		
Tutoring					
Year 1		60			

³ The abbreviations in the teaching activities and the assessment column are explained in sub section *The nature of teaching activities and assessment* below.

⁴ The category column assigns one of eight categories to each unit of study. The categories are explained in sub section *Categories* below

Table 2⁵⁶⁷: the second year

	category	study load in EC	teaching activities	assessment	prerequisites
201000197 Ambient Screens	CA	8	LPIpG		1
201000198 Hybrid Worlds	CA	9	LPIpG		1
201000196 CE in art, science and technology	CE	2	LPIpG		1
201000191 3-D Modelling	DE	2	Llp		1
201000192 Advanced Graphic Design	DE	2	LPI		1
201000193 Digital Content Creation Tools	DE	2	LI		1
201000199 Design marketing	BI	3	LPI		1
201000200 Business management	BI	3	LI		1
201000189 Introduction to electronics	ST	4	Lp		1,2
201000188 Wireless communication systems	ST	4	Lp		1,2
201000187 Control systems	ST	4	Llp		1,2
201000190 Sensors	ST	3	Llp		1,2
201000184 Web 2.0 Mashups	NM	3	LPIp		1,3
201000185 Virtual environments	NM	6	LPIp		1,3
201000186 Game development	NM	6	LPIp		1,3
201000194 Programming with structures	CS	5	Llp		1
201000195 Data-driven Applications	CS	3			1
201000084 Strategies and Protocols	MA	3	LI		1
201000085 Queues and logistics	MA	3	LI		1
Tutoring					
Year 2		60			

1. To participate in these units of study, students must have a registration as either an ST or an NM student. Moreover they must have completed units of their first year totalling at least 40 credits. See also section h.
2. To participate, 10 credits in MA or ST are mandatory (see section h)
3. To participate, 10 credits in CS or NM are mandatory (see section h)

⁵ For an explanation of the category, teaching activities and assessment columns see table 1.

⁶ The numbers in the prerequisites column refer to the text at the end of the table.

⁷ The units of study in italics are optional. Students either take the units in the ST category, or the units in the NM category, but not both. See also sub section *Options and electives below*.

Table 3⁸⁹¹⁰: the third year

	study load in EC	teaching activities	assessment	prerequisites
<i>Electives</i>	15			1
<i>Free space to establish a profile (profielingsruimte)</i>	30			1
Final Project	15			2
Year 3	60			

1. To participate in these units of study, students must have completed units of their first and second year totalling at least 80 credits. See also section h.
2. To start the Final Project, students must have completed the entire programme, except this project. See also section h.

Categories

In tables 1 and 2 units of study are classified in eight categories. The categories are:

Category	Abbreviation	number of courses in year 1	number of courses in year 2	Total number of courses
Creative Applications	CA	3	2	5
Creative Explorations	CE	1	1	2
Design	DE	4	3	7
Business	BI	0	2	2
Smart Technologies	ST	2	4*	6
New Media	NM	2	3*	5
Computer Science	CS	2	2	4
Mathematics	MA	3	2	5
		17	19	36

⁸ For an explanation of the teaching activities and assessment columns see table 1.

⁹ The numbers in the prerequisites column refer to the text at the end of the table.

¹⁰ The units of study in italics are optional. See also sub section *Options and electives* below.

* Each student chooses a track and takes either the ST courses or the NM courses, but not both

Options and electives

At the end of the first year students must choose between two options: Smart Technology and New Media. Programmes for these specialisations differ in the second year. Students who opt for Smart Technology take the units of the ST category in table 2. Students who opt for New Media take the units of the NM category of table 2. Both options have a study load of 15 credits. Admission to the options is discussed in section h.

Students can use semester 5 (totalling 30 EC) for various purposes. This is the free space to establish a profile (“profileringsruimte”) in the curriculum.

- They can take courses to prepare for further study in the Master’s programme Communication Studies.
- They can take courses to prepare for further studies in Industrial Design Engineering.
- They can take courses to prepare for further studies in Mechatronics or Electrical Engineering.
- They can take the courses (and projects) of the minors Ondernemerschap or Management to prepare for a role on the labour market.
- A one semester stay at another (foreign) university is also an option.
- And finally, students who just want to broaden their knowledge in related topics which are not in the curriculum (e.g., computer music, image or language processing), can use the free space for their profile (profileringsruimte) to do so.

Students need permission for their use of free space to establish their profile. The Examination Board issues a regulation regarding this permission.

Students have to choose electives in the third year totalling at least 15 EC.

The choice of electives is restricted by the following rules.

1. At least one unit of study among the electives deals with ethics and professional standards
2. The other units of study among the electives deal with human-product relationships, except for students who opt for an effort as described under 3.
3. Students can participate in a final project of a fellow student, as an assistant, with a maximum study load of 5 credits. It must be clear that the student doing the final project defines the work of the assistant, and acts as his or her manager. An examiner appointed by Examination Board is responsible for the assessment of the assistant’s work.

The Examination Board sets rules for such assistantships.

The nature of teaching activities and assessment

The tables above specify the nature of teaching activities and assessments for the various units of study in their “teaching activities” and “assessment” columns.

The abbreviations must be read as follows.

For teaching activities

- L (Lectures) an expert speaker addresses the students.
- P (Presentations) the students address their fellow students.
- I (Interaction) questions are raised, discussed and answered, in collaboration between students and teacher.
- p (Product) a result is being produced, which can be demonstrated and observed, The product is more than ere text for reading.
- G (Group) students collaborate in a group.

For assessment

- W (Written) students participate in a session for a written examination.
- O (Oral) oral examination
- E (Essay) students hand in one or more essays.

- H (Homework) students hand in homework assignments.
- P (Public defence) student give a presentation and (publicly) defend the results of an assignment
- p (Product) students demonstrate the results of an assignment (a working prototype, a result to be analyzed and observed, not mere text)

These codes characterize interim examination. The examiner will observe these characteristics, but may add more detailed requirements for assessment.

b. Specializations

At the end of the first year students must choose between two options: Smart Technology and New Media. They make a difference in the second year.

Students who opt for Smart Technology take the units of the ST category in table 2.

Students who opt for New Media take the units of the NM category of table 2.

Both options have a study load of 15 credits.

Admission to the options is discussed in section h.

c. The programme's final qualifications

The intended learning outcomes of the Creative Technology curriculum are captured by the following 12 final qualifications for the Creative Technology graduates. Names for the qualifications are in boldface.

1. Graduates are skilled in problem-finding, idea and concept generation, and in the identification of opportunities for the exploitation of new technology; they can develop concepts and ideas, using the latest tools, into key prototypes. (**Concept generation and prototype development**)
2. Graduates can evaluate concepts and ideas from the viewpoints of functionality, performance, experience, user acceptance and usability, marketing and societal implications (issues like privacy and security); they can present the results of their evaluation in an understandable manner. (**Evaluation of concepts**)
3. Graduates understand the workflow of a design process, can plan such a design process, and are aware of the effects that unforeseen circumstances (new ideas, new requirements, lack of resources) may have on this planning. (**Understanding and planning the design process**)
4. Graduates can assume a role in a multi-disciplinary team, are aware of personal strengths and weaknesses, can develop a personal vision and can capture requirements and knowledge from different fields of specialization. (**Collaboration and multidisciplinaryity**)
5. Graduates know the relevant theories underpinning graphic design in all its aspects (including the use of colour and motion, the combination of text and other visual means, and even the combination of graphics and sound) (**Skills and knowledge in graphic design**)
6. Graduates know the relevant (web technology, databases, dynamic and control systems) technologies to be used, and the relationships they have to one another and to graphic and motion design (qualification 5), concerning both principles and functionality. In addition to this, each student has additional technological knowledge, which concerns, depending on his specialization, either knowledge of (serious) games and 3D (virtual) environments or knowledge of sensors, wireless communication and electronics. (**Knowledge of technology**)

7. Graduates can implement algorithms and combine principles from physics and mathematics at the level required to demonstrate an application. (**Skills in technology**)
8. Graduates can analyze and classify system behaviour and express the analysis in mathematical models; they can use tools to perform simulations, they are capable of critical evaluation of their simulations. (**Skills and knowledge in modelling and simulation**)
9. Graduates know how to develop a business plan. (**Business knowledge**)
10. Graduates are aware of the roles of designers in society, and the standards (ethically and legally) for professional behaviour. (**Roles in society**)
11. Graduates can communicate with experts and non-experts about all aspects of his field, i.e. firstly concerning concepts, ideas, opportunities, and design workflow (qualifications 1,3), secondly concerning evaluation of concepts (qualification 2), and finally concerning prototype development and technological and modelling issues (1,6,7,8); this communication covers presentation, justification and documentation, and (to a limited extent) scientific debate; in this communication the graduate knows how to employ modern media. (**Communication**)
12. Graduates are capable of logical reasoning; they are inquisitive and capable of posing proper questions; they can critically evaluate results obtained (by themselves and others); they are capable of critical reflection and can adapt their behaviour on the basis of that reflection, and are aware of gaps in their own knowledge and skills; they are prepared to learn and capable of learning. (**Basic academic attitude**)

d. Practicals

No special provisions apply to the organisation of practicals.

e. Study load

The study load of units of study can be found under a.

f. Master's programmes

The master's programme for Creative Technology graduates, in accordance with section 7.13, subsection 3 of the Act, is the Human Media Interaction Programme of the University of Twente.

Admission to other Master's programmes depends on study units in the student's "profielingsruimte". See section a, subsection *Options and electives*.

g. Provisions for part-time students

The programme offers no provisions for part-time students. The programme is a programme for full-time study.

h. The conditions of admission to units of study and interim examinations

Conditions of admission to units of study are in the tables of section a, *Programme and examinations*, where the units of study are listed.

To participate in units of study of the second year students must meet two conditions:

- a. They are registered as either New Media or Smart Technology students

- b. They have completed study units of the first year with a total study load of at least 40 credits.

To take ST units as a specialization in the second year, at least 10 credits in MA and/or ST of the first year must have been completed.

To take NM units as a specialization in the second year, at least 10 credits in CS and/or NM of the first year must have been completed.

To participate in units of the third year, students must meet a single condition

- c. They have completed study units of the first and second years with a total study load of at least 80 credits.

To start their Final Project, students must have completed all other units of the programme.

The Examination Board issues a regulation for students who wish to change their registration (from NM to ST or conversely).

The Examination Board may grant permission to students to start in their second or third year, or in their Final Project, even if they do not meet the requirements of this regulation.

i. Transitional arrangements

No transitional provisions apply.

j. The language of the programme, and language proficiency conditions for admission

1. The language of the programme is English. This applies to teaching and examination.
2. The Examination Board can grant permission to teach and conduct interim examination in another language. Permission can be granted only if it serves the quality of the assessment.
3. Dutch students with a vwo diploma meet the English language proficiency requirements for admission.
Students from countries participating in the Lisbon treaty for whom English is a subject of their final examination, meet the language proficiency requirements for admission. In particular, German students with English up to their Abitur (13 years) meet the English language proficiency requirements for admission.
Students who went to school in a system of education where the language of teaching is English, meet the language requirements. (The admissions office maintains an official list of these countries. This list is decisive.)
Others must explicitly prove their proficiency at IELTS 6.0 level (over all score), before admission can be granted.
4. Students who meet the admission requirements of section j, subsection 3 above, but without English language proficiency corresponding to the IELTS 6.0 level, must take English language courses to overcome their deficiency. The dean issues a regulation concerning the conditions for participation in these courses, and the faculty's contribution in the costs of these courses.
5. The dean issues a regulation concerning the assessment of English language proficiency of staff members who teach courses in the programme, and of the support staff for the programme. All staff involved must meet the language requirements of the regulation. Courses to improve English proficiency of staff members are provided.