

***Programme-specific section of the Students' Charter,  
incorporating the 2022-2023 Teaching and Examination  
Regulations for the Bachelor's programme.***

***HBO-ICT full-time (study programme code 30020)***

***of Fontys Hogeschool ICT (Fontys Institute 29)***

***teaching locations:***

- ***Eindhoven***
- ***Tilburg***

***The programme-specific section shall apply to all full-time students of the full-time students of the study programme, both the Dutch-language and the English Stream, who commenced with (or retook) the first semester or second semester from September 2019, students who commenced with (or retook) semester 3 and semester 4 from September 2020 and students who commence with (or retake) semester 5 from September 2021 and semester 6 from February 2022.***

The study programme's section of the Students' Charter was adopted by the institute's director on 1 June 2022, after obtaining the IPC's consent on 1 June 2022 and the PC consent on 1 June 2022.

Article 15 section 9 was amended by the institute's director on 12 January 2023 following positive advice from the IPC on 7 December 2022 and approval by the PC on 11 January 2023.

The teaching and examination regulations of the study programme expand on the general section of the teaching and examination regulations of Fontys Bachelor's programmes.

This general section for the 2022-2023 academic year was established by the Executive Board on 14 December 2021, following the consent of the students' section of the CPC, which was given on 7 February 2022.

## Table of contents

<b>A – Teaching and Examination Regulations</b>	<b>1</b>
<b>Section 1 General Provisions</b>	<b>1</b>
Article 1 Definitions	1
<b>Section 2 Admission to a Bachelor's programme</b>	<b>6</b>
Article 2 Required prior qualifications	6
Article 2a Study choice check and study choice advice	7
Article 3 Requirements regarding foreign diplomas//prospective international students	8
Article 4 Professional activity requirements	9
<b>Section 3 Intake interview, exemptions, short-track/tailored study programmes</b>	<b>9</b>
Article 5 Intake interview	9
Article 6 Exemptions	10
Article 7 Short-track/tailored study programmes	10
<b>Section 4 Facilities with reference to student coaching, functional disability, language, functional disability, administrative activities, Elite athletes scheme, student entrepreneurship</b>	<b>11</b>
Article 8 Student coaching	11
Article 9 Facilities with reference for language	11
Article 10 Special facilities for students with a functional disability	11
Article 11 Students with board memberships	12
<b>Article 12 Elite Athletes scheme - Student entrepreneurship</b>	<b>12</b>
<b>Section 5 Study programme content</b>	<b>12</b>
Article 13 Study programme profile – main subjects/differentiations – occupational requirements	12
Article 14 Study programme layout	13
Article 15 Overview of units of study and credits	13
Article 16 Content of minors and other special programmes	21
Article 17 Education components - learning environment	22
Article 18 Evaluation of teaching	22
<b>Section 6 Tests, evidence, assessment and study progress</b>	<b>23</b>
Article 19 Types of tests - evidence	23
Article 20 Tests and assessment	23
Article 21 Content of tests, duration of the test, test aids and test timetable	23
Article 22 Registration for tests	23
Article 23 Proof of identity during tests	23
Article 24 Test marking system	24
Article 25 Test results	24
Article 26 Inability to sit tests	24
Article 27 Request for a review	24
Article 28 Resits	24
Article 29 Period of validity of results - evidence	25
Article 30 Graduation product - Knowledge bank	25
Article 31 Study progress	25
Article 32 Advice regarding the continuation of studies	25
Article 33 Additional provisions concerning binding negative advice regarding the continuation of studies	26
<b>Section 7 Graduation</b>	<b>27</b>
Article 34 Examinations – certificates – diploma supplement	27
Article 35 Statement on departure	27
Article 36 Transfer	28
<b>Section 8 Irregularities and fraud</b>	<b>28</b>
Article 37 Irregularities and fraud	28
<b>Section 9 Examination Board, appeals</b>	<b>28</b>
Article 38 Examination Board	28
Article 39 Appeals	29
<b>Section 10 Retention and hardship clause</b>	<b>29</b>
Article 40 Retention of documents	29
Article 41 Hardship clause	29
<b>Section 11 Final provisions and implementation</b>	<b>29</b>
Article 42 Entry into force, amendments, publication and official title	29
Article 43 Transitional provisions	30
Article 44 Unforeseen cases	30
<b>Appendix 1 Exit qualifications of the specialisations</b>	<b>31</b>
<b>Appendix 2 Minor regulations of the programme minors</b>	<b>32</b>
<b>Appendix 3 Advancement standards</b>	<b>37</b>
<b>Appendix 4 Criteria for Professional Development</b>	<b>39</b>

<b>B - Study programme setup and support facilities .....</b>	<b>1</b>
<b>C - Internal complaints procedure .....</b>	<b>1</b>

# A – Teaching and Examination Regulations.

## Section 1 General Provisions

### Article 1 Definitions<sup>1</sup>

Academic activity	The education offered that the student can use to support his learning process.
Academic year	The period from 1 September up to and including 31 August of the following year.
Advice regarding the continuation of studies	Advice given to students at the end of the first year of the foundation phase of a Bachelor's programme regarding the continuation of their studies either with the programme or elsewhere. This advice may entail a binding rejection (binding negative study advice).
Assessment	Generic term for tests aimed at assessing a student's competencies in a professional situation that is as authentic and realistic as possible.
Associate degree	The Associate Degree (AD) is an intermediate qualification awarded in higher professional education between senior secondary vocational education level 4 (MBO 4) and a Bachelor's degree.
Assessor	An examiner that grades the student's progress in acquiring the required competencies.
CAA	Centre for Administrative Activities. The CAA is the internal Fontys partner of the representative and participatory bodies and their discussion partners with respect to optimising how these bodies function.
Certificate	The certificate as referred to in Section 7.11 of the Dutch Higher Education and Research Act ( <i>Wet op het Hoger Onderwijs en Wetenschappelijk Onderwijs</i> , WHW).
CPC	Central Participation Council
Cohort	The group of students who are enrolled for the first time in the foundation year of a study programme on the same reference date to which the prevailing Teaching and Examination Regulations (TER) apply. For students who enrol in a higher year, cohort membership is determined on an individual basis.
Competency	A cluster of related knowledge, skills and attitudes that influences a substantial part of a person's job, is related to the performance of the job, can be measured and tested against accepted standards and can be improved through training and development.
Component test	If an interim examination consists of several tests, each of those tests is referred to as a component test.
Coordinating institute	The coordinating institute is the Fontys Institute which bears final responsibility for the development, implementation, assessment and improvement of a minor programme.
Credit	One credit equals 28 standard study-load hours. Students are awarded credits on passing the interim examination of a unit of study. The international term for credits is ECTS credits (EC's).
Courses	The courses offered to students to help their learning process.
CROHO	Central Register of Higher Education Study Programmes, which is a register of all study programmes. Students that pass the interim examinations of a study programme registered in CROHO are entitled to an official higher professional education certificate with the associated degree (Associate degree, Bachelor or Master). The CROHO will be replaced by the RIO in 2022.
Deficiency	Any required prior qualification(s) a student lacks.
Diploma supplement	Document drawn up in accordance with a European format that is added to the certificate and states the nature, level, context, content and status of the study programme.

<sup>1</sup> The use of personal pronouns has been avoided as much as possible. Whenever it was necessary to use a personal pronoun, he/him was used. This explicitly refers to all persons, men, women and people who do not recognise themselves in one of these identities.

Dual-study programme	A dual-study programme is organised in such a way that education is alternated with one or more periods of professional practice related to the study programme. The study programme therefore consists of an educational segment and a practical segment, both of which are integral parts of the study programme.
DUO	Short for <i>Dienst Uitvoering Onderwijs</i> , a government agency charged with implementing education legislation and regulations of which the IB Group forms a part.
Diploma with subject combination	Former senior general secondary education ( <i>HAVO</i> ) or pre-university education ( <i>VWO</i> ) diploma based on subject combinations. These diplomas were issued before the <i>HAVO</i> and <i>VWO</i> profiles were introduced (from 1998).
ECTS	European Credit Transfer System. The system that is used to express credits in order to facilitate international comparison. See also: credits.
Elite athletes scheme	Scheme for elite athletes that specifies which students are eligible to benefit from it and the facilities that they may use under it.
EVC (RPL)	Erkenning van eerder Verworven Competenties (Recognition of Prior Learning). Competences, for example, gained through work experience or previous education.
Examination	Assessment administered by the Examination Board to determine whether students have successfully completed the educational components of a study programme or the foundation-year phase. The final examination may also include a supplementary assessment conducted by the Examination Board.
Examination Appeals Board	The Board as referred to in Sections 7.60 up to and including 7.63 of the WHW and Articles 45 and 46 of the Students' Charter. The organisation, duties and powers of the Board are laid down in the Rules of Procedure adopted by the Examination Appeals Board and approved by the Executive Board.
Examination Board Examiner	The board of persons referred to in Section 7.12 of the WHW. Member of staff who is designated by the Examination Board to administer examinations and assess the results thereof or an external expert.
Executive Board	The administrative body of Fontys University of Applied Sciences, as described in the articles of association and the WHW.
Executive institute	A Fontys institute responsible for the execution of a minor.
Exemption	Full or partial exemption from meeting enrolment and / or admission conditions and / or sitting interim examinations.
Exit qualifications	Qualifications students must have on completing the study programme.
Fontys minor	A minor open to all Fontys students, so long as they meet any admission criteria for the minor, with a focus on overarching and distinctive themes.
Foundation year	First phase in a Bachelor's programme.
Fraud	Any act (including plagiarism ) or omission that either partially or fully impairs the correct assessment of a person's knowledge, insight, skills, competencies, professional attitude, powers of reflection, etc.
Full-time study programme	A full-time study programme is a study programme whose structure is such that students are assumed not to participate in any activities other than educational activities.
IELTS	International English Language Teaching System, a tool used to determine a student's command of the English language.
Institute	The operational unit at Fontys that is, in particular, responsible for organising Fontys's core competencies and that executes the primary processes, i.e. the statutory tasks as referred to in Section 1.3, paragraphs 3 and 1.9(1) of the WHW.
Institute Director	The staff member charged with running a Fontys institute.
Institution	The Fontys Universities of Applied Sciences.
Intake assessment	Portfolio assessment conducted at the student's request to validate previous learning experiences prior to enrolment in the study programme. A fee covering the costs is charged for an intake assessment.

Intake interview	Interview conducted at the student's request prior to the start of the study programme if the student believes to have previously acquired competences. An intake interview comprises a general assessment from which no rights can be derived by a student.
Interim examination	An examination of the knowledge, understanding, skills and / or competencies of a student required to conclude a unit of study, including an assessment of the results of such an examination ( <i>Section 7.10(1) of the WHW</i> ). An interim examination may consist of one or more parts.
IPC	Institute Participation Council
Main subject	A specific definition of the curriculum within a programme, which begins immediately from year 1 or following the foundation year.
Major	That part of the Bachelor's programme with a study load of 210 credits that contributes to the competencies associated with the programme and that is directly related to the study programme(s)'s registration in the <i>R/O</i> .
Minor	Programme of optional subjects within a Bachelor's programme with a study load of 30 credits that contributes to generic or specific competencies.
Minor regulations	Regulations that describe the content, the educational activities, the testing and the completion of a minor. The regulations of all minors offered by Fontys can be found on the <a href="#">Fontys website</a> . The regulations of the minors associated with a particular study programme have been included as an appendix of the study programme's TER.
Nt2 diploma	Diploma of the Nt2 official state examination in Dutch as a second language, of which programme II is considered to be the guideline for admittance to higher education.
Occupational requirements	The legal requirements to which the practice of a particular profession is subject. A study programme aimed at such an occupation will prepare students to meet the relevant requirements. ( <i>Section 7.6 of the WHW</i> ).
Part-time study programme	A part-time study programme is a study programme whose structure is such that the student is able to participate in supplementary activities, either work-related or educational, alongside the study programme.
Portfolio	A collection of evidence, digital or otherwise, with which students can demonstrate that they master the competencies of a particular study programme.
Post-foundation year phase	Second phase of a Bachelor's programme.
Principle	All study programmes offered are based on one of the following principles: non-denominational private education (NPE), Roman Catholic (RC), Protestant Christian (PC) or a combination of non-denominational private education, Roman Catholic and Protestant Christian (NPE, RC, PC).
Profiling Fund Board	Board charged by the Executive Board with implementing the Profiling Fund scheme, formerly known as the FSS Board.
Profiling Fund Scheme	Scheme for the granting of support to students in the form of graduate funding, committee member grants or attendance fee from the profiling fund, now known as the <a href="#">Profiling Fund Scheme</a> .
PC	Opleidingscommissie (Programme Committee, PC), a committee established for a particular study programme of an institute referred to in Section 10.3c of the Act (see the <a href="#">Regulations on the Participation Councils and Degree PC's</a> ).
R/O	The register ( <i>Registratie Instellingen en Opleidingen</i> ) that will replace existing registers such as the CROHO and the BRIN.
Tailored programme	Special programme which differs from the standard programme.
Teaching period	Period in the academic year during which educational activities are organised. A teaching period is referred to as a study quarter in the Fontys annual calendar.
TER	Teaching and examination regulations. The TER consists of a general section for all study programmes offered by the Fontys Universities of Applied Sciences as well as information specific to individual study programmes. The TER forms a part of the study programme section of the Students' Charter.

Test	Activity used to assess whether a student has certain knowledge, insight, skills and / or competencies.
Student	A person who is enrolled in the institution, as referred to in Sections 7.32 up to and including 7.34 of the WHW.
Student counsellor	Staff member appointed by the Executive Board who is responsible for looking after the students' interests, providing assistance when problems occur and providing information and advice. The student counsellor is part of the Student Facilities Service ( <i>Dienst Studentenvoorzieningen</i> ).
Study Career Centre	Service provided by the Student Facilities Service ( <i>Dienst Studentenvoorzieningen</i> ) to help students with issues involving admission, transfer to another study programme / institute or the termination of their studies.
Students' Charter	The <u>charter</u> containing the rights and obligations of students, divided into an institution-specific section and a study programme-specific section.
Student entrepreneur scheme	<u>Scheme</u> which is intended to help Fontys students who are deemed student entrepreneurs to combine entrepreneurship and study.
Student coach	Coach who provides guidance on issues relating to student progress, including those that stimulate a student to develop a personal and professional identity, focusing on a student's talents and personal leadership qualities. <i>Also known as mentor.</i>
Student coaching	System of guidance that focuses on the development of the individual student. It stimulates students to reflect on their own development as future practitioners of the profession and to take responsibility for their own development.
Study check advice	Advice provided to a prospective student who has participated in the study check with regard to his choice of Bachelor's or Associate Degree programme.
Study check	The activity offered by Fontys whereby the prospective student is given advice with respect to his choice of study programme. The study check consists of at least two components: a digital questionnaire and a consultation to discuss the results of the questionnaire.
Study load	The standardised time investment expressed in units of 28 study load hours related to a study programme.
Study programme	A coherent totality of educational activities aimed at achieving the well-defined objectives in the area of knowledge, insight and skills which the person completing the study programme should possess. Every study programme is recorded in the RIO.
Study programme minor	A minor which can only be taken by students from a specific domain or study programme and which highlights one particular theme.
Study programme profile	The entire set of final qualifications for which the study programme provides training or, in other words, the professional competencies expected of a beginning professional.
Unit of study	Part of a study programme that is concluded with an interim examination as referred to in Section 7.3(2) of the WHW or an additional assessment carried out by the Examination Board, as referred to in Section 7.10(2) of the WHW. Units of study may relate to the assessment of one or more competencies, a component of competencies (knowledge, insight, skills, attitude) or a combination of competencies or of a minor. Students are awarded the relevant credits on passing the interim examination for the unit of study.
WEB	Adult and Vocational Education Act ( <i>Wet Educatie en Beroepsonderwijs</i> , WEB; Bulletin of Acts and Decrees 507, 1995, and later supplements and amendments).
WHW	The Dutch Higher Education and Research Act ( <i>Wet op het Hoger Onderwijs en Wetenschappelijk Onderzoek</i> , WHW; Bulletin of Acts and Decrees 593, 1992, and later supplements and amendments).
WEB	Adult and Vocational Education Act ( <i>Wet Educatie en Beroepsonderwijs</i> , WEB; Government Gazette 501, 1995, and later supplements and amendments).

WHW The Dutch Higher Education and Research Act (*Wet op het Hoger Onderwijs en Wetenschappelijk Onderzoek*, WHW; Government Gazette 593, 1992, and later supplements and amendments).

### **Programme-specific definitions**

Canvas	<i>Electronic learning environment where among other things learning materials are being made available, products are being submitted by students, students and teachers communicate and formative feedback is being saved.</i>
Course-based learning	<i>A fixed learning pathway offered, in which the learning outcomes and the road to those outcomes are determined by the study programme. There is a varied range of educational activities and study materials. Choices are limited and determined by the programme. The learning outcomes are specified in the <u>FHICT Programme Guide</u>.</i>
DAT	<i>Differential Aptitude Test, code DAT-HRM 2007. This test is used as part of the admission assessment.</i>
Demand-based learning	<i>A flexible learning pathway, in which the learning outcomes are determined by the study programme and the student makes his own choices in respect of the road to those outcomes (learning strategy). The student can choose from various educational activities and study materials, including his own options. The learning outcomes are specified in the <u>FHICT Programme Guide</u>.</i>
FHICT Programme Guide	<i>The programme guide contains all the information of all educational activities. The programme guide shall be published on the Fontys website 1 week before the start of the semester, as an appendix to the TER.</i>
Formative indication	<i>Development-oriented feedback and feedforward moment.</i>
Learning outcomes	<i>A learning outcome is a statement on what the student is expected to know, understand and be able to handle at the end of the learning process, and how the student demonstrates this. The learning outcomes are listed per unit of study in the <u>FHICT Programme Guide</u>.</i>
Main phase	<i>The post-foundation year phase of a Bachelor's programme.</i>
Open learning	<i>An open learning pathway, in which the learning outcomes and the road to those outcomes are determined by the student. Students choose their own learning outcomes, study materials (Open Educational Resources) and educational activities in dialogue with a coach. The criteria within which the learning outcomes can be determined are specified in the <u>FHICT Programme Guide</u>. In the Main Phase, the student can choose the unit of study "Personalised Unit of Study". This is the unit of study within which the Open Learning teaching method is implemented. The Personalised Unit of Study can be taken one or more times from the second year instead of a course-based, demand-based or research-based profile or specialisation semester.</i>
Partial test	<i>Any type of work for which formative feedback is given and which influences the final summative assessment.</i>
Professional product Profile	<i>Evidence for student's portfolio. There are five profiles that are offered structurally. These profiles focus on five main areas of ICT (the architectural layers from the HBO-i competency model). These are the profiles: ICT &amp; Business, ICT &amp; Infrastructure, ICT &amp; Media Design, ICT &amp; Software Engineering and ICT &amp; Technology.</i>
Progress Dashboard	<i>Progress is the Fontys-wide study progress programme that records the results achieved that ultimately lead to the award of credits.</i>
Research-based learning	<i>A flexible learning pathway, in which the learning outcomes are determined by the study programme and the student makes his own choices in respect of the road to those outcomes (learning strategy). The student can choose from various educational and research activities and study materials, including his own options. The learning outcomes are specified in the <u>FHICT Programme Guide</u>.</i>
Semester coach	<i>A teacher in the role of student coach for a semester. Also known as mentor.</i>
Specialisation	<i>To be able to respond immediately to the rapid changes in the field and to offer students the opportunity to study in the full breadth of ICT, specializations are also offered. As a result, specializations are regularly added and discontinued. The specializations are mentioned in article 15 paragraph 9 in the table of choices in semesters 4 and 7.</i>



<i>Tailored track</i>	<p><i>A programme or track that allows a student to complete a certain unit of study from the curriculum in an alternative manner if they have not received a passing grade. To that end, the student enters into a tailored contract with the Examination Board, which outlines how the student will demonstrate the necessary knowledge and skills. If the student refuses the tailored track or programme offered or fails to present the Examination Board with an acceptable contract by the proposed deadline, the student must demonstrate the units of study in the regular way. The teachers supervising the student's tailored track will assess whether the student has met the requirements agreed upon.</i></p> <p><i>Students are not automatically entitled to a tailored track. Rather, it is an option that is offered to them by the Examination Board at the recommendation of the examiners.</i></p>
<i>Teaching method</i>	<p><i>An implementation form of education. Four teaching methods are used in education to meet the different needs of students and lecturers (particularly in the degree of predictability and flexibility). The four teaching methods are: course-based learning, demand-based learning, research-based learning and open learning.</i></p>
<i>Teaching period</i>	<p><i>A number of connected educational activities ('blocks'), which are carried out within a quarter or semester. A teaching period or 'block' is between 224 study load hours and 840 study load hours.</i></p>

## **Section 2 Admission to a Bachelor's programme**

### **Article 2 Required prior qualifications**

1. Only prospective students with diplomas awarded on completing pre-university education (VWO) or senior general secondary education (HAVO), with profiles, or senior vocational education (MBO) in middle management as well as prospective students that have completed specialist training or a vocational training programme designated by a ministerial regulation may be admitted to a Bachelor's programme (Section 7.24 of the WHW. Additional conditions for admission apply if a shortened programme is offered. Those conditions are set out in Article 7.
2. Prospective students with a certificate awarded on completing a foundation year or passing the final examination of a higher professional education (HBO) or academic higher education (WO) study programme are also entitled to be admitted to a Bachelor's programme at a university of applied sciences. Prospective students must, however, also meet any applicable requirements regarding their previous qualifications (paragraph 4) and any other additional requirements imposed (paragraph 5). (Section 7.28 of the WHW).
3. All citizens that have access to education offered by research universities or universities of applied sciences in a country that has ratified the Convention on the Recognition of Qualifications concerning Higher Education in the European Region may also be admitted to a Bachelor's programme, without prejudice to the provisions in paragraphs 4 and 5 of this article and the provisions of Article 3. This right to enrolment shall not apply if the Executive Board can prove that there is a substantial difference between the general admission requirements in the territory of the country concerned and the general requirements under or pursuant to the WHW (Section 7.28 of the WHW).
4. The following additional prior qualification requirements shall apply to the Bachelor's programme:
  - a. There are no additional prior qualification requirements for HAVO and / or VWO diplomas.
  - b. There are no additional prior qualification requirements for MBO-4 diplomas.
  - c. There are no additional prior qualification requirements for HBO/WO foundation year diplomas.
5. There are no additional requirements for enrolment in the Bachelor's programme.
6. Prospective students who are 21 or older at the start of the study programme and do not meet the requirements regarding their previous qualifications and have not been exempted from the requirements may still be eligible for exemption after taking an entrance examination. (Also see Article 3(5).) (Section 7.29 of the WHW.)

The aim of this examination is to determine the prospective student's suitability to take part in the Bachelor's programme as well as the student's command of the Dutch language or the English language, if the prospective student opts for an English-taught study programme.

The entrance examination consists of two parts:

- An intellectual abilities test to assess if the prospective student has the required working skills and intellectual abilities at higher professional education (HBO) level. A stanine total score of 4 or higher is required to pass this part of the test.
- A language test to assess the prospective student's command of Dutch or English compared to the required 3F (B2) level. *Students who want to follow the study programme in Eindhoven will take the English language test. Students who want to follow the programme in Tilburg will take the Dutch language test.*

Prospective students taking the entrance examination for students aged 21 or over (hereinafter the '21+ entrance examination') for a Dutch-taught study programme *in Tilburg* may request an exemption for the Dutch language test if they have already obtained a recognised Nt2 certificate or a certificate for Dutch language proficiency at the MBO 4, HAVO or VWO level granted by a prior degree programme.

Prospective students who register for the 21+ entrance examination for an English-taught programme *in Eindhoven* must provide a TOEFL, IELTS or other accepted<sup>2</sup> certificate, *or a certificate of English at the level of a pre-university diploma at mbo-4, havo or vwo level to be exempted from the language test.*

Prospective students will be notified of the results of the entrance examination within two weeks.

If a prospective student fails the 21+ entrance examination, they can retake it after one year.

The result of a passed 21+ entrance examination will remain valid for five years.

Prospective students will not be exempted from taking the 21+ entrance examination on the basis of any 21+ entrance examinations or intellectual abilities tests administered elsewhere.

7. The Executive Board has declared that 'old' HAVO and VWO diplomas with subject combinations shall be at least equivalent to the 'new' diplomas with subject cluster requirements. Consequently, prospective students holding these types of diploma may be admitted. Students must, however, meet any specific requirements regarding previous qualifications (paragraph 4) and any further additional requirements (paragraph 5) (*Section 7.28 of the WHW*).

*The institute director has declared that the 'old' HAVO and VWO diplomas with old profiles are equivalent to 'new' diplomas with profile requirements. Consequently, prospective students holding these types of diploma may be admitted*

8. Where a prospective student applies for admission to a study programme based on a diploma other than one of the diplomas referred to above, the institute director will decide whether that diploma is equivalent and if it grants access to the study programme. Prospective students must, however, meet any requirements regarding previous qualifications (paragraph 4) and any further additional requirements (paragraph 5). (*Section 7.28 of the WHW*).

9. Admission to the study programme is *not* subject to an admission quota in accordance with Sections 7.53, 7.54, 7.56a and 7.57a of the WHW.

## Article 2a Study choice check and study choice advice

1. The study choice check consists at least of completing a digital questionnaire and a contact session with the programme. *The following additional activity or activities will also be provided as part of the Study Choice Check:*

- *Prospective Dutch students enrolling in the Demand-based or Course-based learning:*

*Will be invited for an afternoon of activities consisting of information and trial lessons. If the future student wants one, a face-to-face consultation with the student can be scheduled. If the future student does not participate in the afternoon of activities, an individual meeting with the student will be scheduled. Future students who enrol after 1 May will receive a binding study choice advice on the basis of a questionnaire and a meeting.*

- *Prospective international students enrolling in the Course-based learning:*

*Will be invited to participate the Study Choice Check Webinar which is broadcasted live once a month. The Webinar is being recorded and is also available via the Website. During the Webinar information is given about the study programme and about studying and the facilities in Eindhoven. Students can have an (online) consultation.*

2. Within 4 weeks following registration, the prospective student will receive a link to the digital questionnaire. Within 4 weeks following completion of the questionnaire, the prospective student will receive an invitation to the contact moment with the study programme.

---

<sup>2</sup> IELTS	6.0
TOEFL Paper	550
TOEFL Internet	80
TOEIC	670

*(Indien zowel het onderdeel 'Speaking and writing' als 'Listening and Reading' is behaald.)*

Cambridge ESOL FCE-C (scale 169 – 172), FCE-B (scale 173-175)

International students as referred to in the Study Choice Check Rules will receive further information on the study choice check within 4 weeks following registration.

3. The digital questionnaire may be completed between 15-10-2022 and 1-9-2023.  
The study choice activities for future international students take place in the period from 1 February through 1 July.
4. The contact sessions for *prospective Dutch students Demand-based and Course-based learning* shall be scheduled for the months of *March, April, June, July and August for regular enrolment and December and January for February enrolment*.  
The contact sessions for *prospective international students Course-based learning* shall be scheduled for the months of *January, February, March, April, June and July for regular enrolment and November and December for February enrolment*.
5. *For the Dutch student, the contact moment consists of various information sessions and attending workshops at the location of the course. After this contact moment, a student can still ask for a personal consultation.*
6. *After a personal consultation with an advisor from the study programme, the study choice advice will be sent to the prospective student by e-mail within ten working days of the contact moment.*
7. The study choice advice is non-binding for prospective students who apply by no later than 1 May. Students who apply after 1 May will not be permitted to enrol, except in the case of a situation as referred to in Article 2(2) or in the event of exceptional circumstances as set out in Article 3(3), under a through d of the Study Choice Check Rules.
8. The Study Choice Check Rules determine the categories of prospective students for whom the study choice advice is not obligatory. The study choice advice is likewise not binding for those groups of prospective students.

### **Article 3 Requirements regarding foreign diplomas/prospective international students**

1. Holders of a foreign diploma may not sit tests for which credits are awarded in the foundation year of a Dutch-taught study programme before having demonstrated to the Examination Board to have an adequate command of the Dutch language (*Section 7.28 of the WHW*).  
*In Tilburg, the programme is taught in Dutch:*  
*Students shall be required to have a command of the Dutch language at Nt2 level, programme II (all 4 components). The certificates for Dutch as a foreign language, Higher Education Language Proficiency Subject Cluster and Academic Language Proficiency Subject Cluster (CNaVT- PTHO and PAT) can be viewed as equivalents, as can the certificates for Dutch as a foreign language, Educational start-skilled and Educational Professional (STRT and EDUP).*  
*In Eindhoven, the study programme is in English:*  
*Command of the English language is required at the level described in paragraph 6.*
2. The institute director may also decide that a prospective student with a foreign diploma may be admitted after the prospective student has demonstrated that the student has an adequate command of the Dutch language (*Section 7.28 of the WHW*).  
*In Tilburg, students shall be required to have a command of the Dutch language at Nt2 level, programme II (all 4 components).*  
*In Eindhoven, students shall be required to have a command of the English language at the level described in paragraph 6.*
3. Prospective students with a foreign diploma seeking admittance by virtue of an entrance examination as referred to in Article 2, paragraph 6, must be at least 21 years of age.
4. Foreign prospective students from outside the EU who are 18 years of age or older on the date of their first enrolment must have a valid residence permit (*Section 7.32 of the WHW*).
5. Foreign students with a residence permit are required to earn at least 50% of the available credits each year. The IND will be informed if the student fails to meet this requirement, unless there are special circumstances due to which the student was unable to meet this requirement. Such a notification based on the same special circumstances may be withheld once during the course of each study programme.
6. For international<sup>3</sup> students, the following language requirement applies for admission to an English-language programme.

---

<sup>3</sup> According to the Code of Conduct International Student, the term 'international student' refers to a 'student with a foreign nationality who, in case of a third-country national on the basis of a residence permit granted to this effect, desires to continue, continues or has continued his/her full time education at a higher education institution in the Netherlands'.

- an average IELTS score of 6.0, for which the student must have a score of 6.0 for at least three components and may have a score below 6.0 for no more than one of the four components, provided this score is at least a 5.5.

A previously completed language test, with the exception of Cambridge, may be no more than two years old at the time the study commences, which can be either on 1 September or on 1 February.

Exemption may be granted for this requirement if the international student can submit a diploma from prior education that was obtained in a country in which English is the official language of instruction. If the diploma was granted more than two years ago, the student will be asked to demonstrate their language skills again, unless English is the only language of instruction in the country where the student obtained the diploma.

Test	Overall Score	Component	No more than 1 deviating component
<b>IELTS</b>	$\geq 6,0$		
• IELTS reading		$\geq 6,0$	$\geq 5,5$
• IELTS listening		$\geq 6,0$	$\geq 5,5$
• IELTS speaking		$\geq 6,0$	$\geq 5,5$
• IELTS writing		$\geq 6,0$	$\geq 5,5$
<b>Cambridge</b>	$\geq 169$		
• Cambridge reading		$\geq 169$	160 t/m 168
• Cambridge listening		$\geq 169$	160 t/m 168
• Cambridge speaking		$\geq 169$	160 t/m 168
• Cambridge writing		$\geq 169$	160 t/m 168
<b>TOEFL</b>	$\geq 72^4$		
• TOEFL reading		$\geq 18$	
• TOEFL listening		$\geq 17$	
• TOEFL speaking		$\geq 20$	
• TOEFL writing		$\geq 17$	
<b>TOEIC speaking and writing</b>	$\geq 310$		
• TOEIC speaking		$\geq 160$	-
• TOEIC writing		$\geq 150$	-
<b>TOEIC reading and listening</b>	$\geq 785$		
• TOEIC reading		$\geq 385$	-
• TOEIC listening		$\geq 400$	-

Please note: the TOEFL and TOEIC programmes do not have a deviating component, as the lower limit applied in the 'Test Component' table is already the B2 lower limit as well.

#### Article 4 Professional activity requirements

*There are no requirements for the professional practice environment.*

### Section 3 Intake interview, exemptions, short-track/tailored study programmes

#### Article 5 Intake interview

1. Students entering a study programme may be offered to take an intake interview if they have competencies previously acquired elsewhere. Students can include the evidence of the competencies previously acquired elsewhere in their portfolios which are to be evaluated in an assessment or may use this evidence to substantiate a request for exemption before the Examination Board.

<sup>4</sup> In the draft code of conduct that will come into force on 1-9-2022, a minimum score of 60 applies.

2. Students who re-enrol after an interruption in a study programme in which they were previously enrolled will be required to take an intake interview to determine which part of the study programme still has to be completed. No intake interview is needed if agreements regarding re-enrolment in the study programme were already made with the Executive Board at the time that the student interrupted his study. If a student enters a study programme during the foundation year, agreements will be made on the period of time the student will be granted before receiving advice regarding the continuation of studies will be issued.
3. A study programme will be drawn up based on the assessment of the competencies previously acquired and will be submitted to the Examination Board for approval.

## **Article 6 Exemptions**

1. The institute director can exempt a student from the foundation year examination if the student holds a diploma, Dutch or foreign, which is at least equivalent. (*Section 7.30 of the WHW*). (*In the case of students who hold a foreign diploma, also see Article 3.*)
2. Students who believe they are eligible for an exemption must submit an application to that end to the Examination Board. The Examination Board may grant an exemption from one or more interim examinations on the grounds of a review of an assessment or the holding of a diploma, certificate, accreditation of prior learning or similar document, such as proof of results achieved in a study programme taken at a research university or university of applied sciences and/or proof of administrative activities, with which students can show that they have already met the requirements of the test in question. Exemptions are recorded in the study progress system. The period of validity of the exemption is stated in the exemption decision.
3. The Examination Board can grant an exemption from a minor based on the certificate of an accredited Associate Degree, Bachelor's or Master's programme or on a document proving that the student completed a minor in an accredited Associate Degree, Bachelor's or Master's programme, so long as this minor does not overlap substantially with the student's current Bachelor's programme. Exemptions based on study results from an accredited Bachelor's or Master's programme can only be granted if the student has documented proof of obtaining at least 30 credits in this study programme (for a Bachelor's programme, this requirement refers to the second and third year or second year if it concerns an Associate Degree programme) and if these results do not overlap substantially with the student's current Bachelor's programme.  
A student who has taken part in the Fontys Empower programme and has successfully completed all components of that programme may, on that basis, may be granted an exemption for a minor provided the student submits a request to that effect and this possibility has been set out in Article 16(5).

## **Article 7 Short-track/tailored study programmes**

1. Students who believe they are able to proceed with and / or complete their study programmes at an accelerated pace may submit an application requesting such to the Examination Board. The student coach's advice must be enclosed with the application. The organisation of the study programme must be able to accommodate the short-track option
2. *For students entering from a related MBO course, an shortened route can be offered. Admission to this programme is possible if students meet the following conditions:*
  - *MBO4 students who have completed a network management course and who are going to do the ICT & Infrastructure profile.*
  - *MBO4 students who have completed a media-related study and who are going to do the profile ICT & Media Design.*
  - *MBO4 students who have completed an application development course and who are going to do the profile ICT & Software Engineering.*

*These students are offered the possibility to do the educational unit "Startsemester" in self-study before the start of the study, which consists of orientation/ broadening assignments for the 4 profiles that do NOT fit their MBO profile. This programme consists of assignments per profile that are made in advance. By means of a pre-assessment that tests their self-study, it is determined whether they will be exempted for this education unit. More information about the self-study and pre-assessment can be found on Canvas which the student will have access to when registering for this program. A cost-effective rate is charged for this programme.*
3. *Incoming students with a VWO (pre-university education) diploma may qualify for a shortened track offered for ICT & Software Engineering, in addition to the regular bachelor's programme. Admission to this track is possible if students meet the following criteria:*
  - *The student has a VWO (pre-university education) diploma with maths B; or a foreign diploma equivalent to that.*
  - *The student is admitted to a related university programme in the Netherlands.*

*These students are offered the possibility to do the unit of study "Startsemester" in self-study before the start of the study, which consists of orientation/ broadening assignments for the 5 profiles. This programme consists of assignments per profile that are made in advance. By means of a pre-assessment that tests their self-study, it is determined whether they will be exempted for this education unit. More information about the self-study and pre-assessment can be found on Canvas which the student will have access to when registering for this program. A cost-effective rate is charged for this programme.*

*These programmes are explained in Article 15.*

4. If a tailored track is offered to students who (following an intake interview or intake assessment) will be following the study programme via a shortened track, such tracks shall be detailed in this document.
  - *The shortened track referred to in paragraph 3 is worked out in further detail in Article 14, paragraph 8, in the table 'ICT & Software Engineering internship Short-Track'.*
  - *The student can deliver proof for his request for exemptions. The Examination Board decides whether the exemptions will be granted.*

## **Section 4 Facilities with reference to student coaching, functional disability, language, functional disability, administrative activities, Elite athletes scheme, student entrepreneurship**

### **Article 8 Student coaching**

1. Every student is coached by a student coach.
2. In consultation with the student coach, the student decides how best to work on his development and how to shape the learning process.
3. The student consults with the student career counsellor on the progress of the learning process.
4. The student coach conducts support and orientation interviews with the student in the foundation year. *These meetings are recorded in the Studycoach (SC) Dashboard. Students shall be allowed to inspect this and have the right to request that the student coach remove the data.*
5. Students may submit a request to the institute director to be assigned a different student coach if they can give arguments for this.

### **Article 9 Facilities with reference for language**

1. Students enrolled in their foundation year whose mother tongue is not Dutch can apply to the Examination Board to be allowed extra time when they sit tests in the first year of the foundation phase. Extra time to sit tests will only be granted to students who can prove that they use facilities to improve their command of the Dutch language.
2. For Dutch students, extra support will be arranged with regard to promoting Dutch language proficiency for those students who are in need of such support. The following facilities will be provided. *Dutch-language writing courses and language tests on the student portal.*
3. For Dutch students who are enrolled in an English language programme, the following facilities are offered:
  - a. Courses on writing and giving presentations in Dutch;
  - b. language tests.

### **Article 10 Special facilities for students with a functional disability**

1. Students with a functional disability are legally entitled to effective adjustments, unless such adjustments would burden the institution disproportionately. (*Section 7.13 of the WHW, Section 2a of the Equal Treatment of Disabled and Chronically Ill People Act.*) See also <https://fontys.nl/fontyshelpt/Studentenbegeleiding/Bijzondere-omstandigheden.htm>
2. These adjusted facilities must be aimed at the removal or restriction of any obstacles and encourage the independence and full participation of the student as much as possible. The adjusted facilities may relate to the study programme (including internships), the timetables, and type of study programme, the tests and educational tools.
3. A student who seeks to have adjusted facilities must submit a written and substantiated application in good time to the Examination Board. If necessary, the Examination Board will seek an expert's advice (such as a student counsellor) before taking a decision. If the Examination Board deems it necessary before taking a decision, it may confidentially inspect the medical certificate that may be available with the student counsellor, unless the student objects.

The Examination Board must decide within four work weeks after receipt of the application, unless it requires further inquiry, in which case the student will be informed as to when more clarity can be given with respect to his application.

4. In the case of a protracted or chronic disability, such an application will only have to be made once for the entire study programme; in all other cases once per testing period or academic year. In its decision to grant the facilities, the Examination Board may also rule that these will apply for the entire duration of the student's study or that the student is to consult with his student coach annually to discuss whether the facilities are still adequate.
5. At the beginning of the academic year the institute shall inform students regarding the possibilities for special facilities. Students will be informed of their right to consult a student counsellor.

#### **Article 11 Students with board memberships**

1. Students can include any board membership as part of their portfolios. In order to do so, they must describe, in consultation with their student coach, how that board membership can contribute to the acquisition of one or more competencies of their study programme.
2. Board memberships for the JPC, DPC, IPC, CPC, or for study associations, student associations and as members of committees at Fontys can be listed on the diploma supplement. The student must request the listing at least 6 weeks prior to the *graduation ceremony* via the *study programme Studentdesk*, via [studentdeskfhict-teamb@fontys.nl](mailto:studentdeskfhict-teamb@fontys.nl).  
At the request of the student's study programme, the Centre for Administrative Activities (CAA) can confirm that the student has been an active board member of the CPC. In the case of board memberships of the (J)PC or IPC, the study programme can request confirmation from the relevant IPC or (J)PC.  
*The board of the FH ICT shall at the request of the student confirm that the student has been an active board member for the study association of the FH ICT.*
3. Students who believe that their board memberships demonstrate that they have the knowledge, insight and / or skills, etc. that are assessed in particular tests for which credits are awarded may apply for an exemption from such tests from the Examination Board.
4. Facilitation for board memberships is laid down in the Fontys Regulations on the Participation councils and degree programme committees, the Regulations on board membership grants and the Remuneration scheme for committees and steering groups.

#### **Article 12 Elite Athletes scheme - Student entrepreneurship**

1. Students who have been granted an Elite Athletes Sport or Talent status are entitled to facilities from the Elite Athletes Scheme. Facilities regarding the adjustment of tests or test timetables, an adjusted arrangement regarding compulsory attendance, working in groups and an adjusted internship must be sought from the top-class Athletes scheme contact.  
Advice regarding the continuation of studies may be deferred for students with an Elite Athlete status (see Article 32).
2. Students who are eligible for the Student Entrepreneurship Scheme may apply to the Examination Board, among others, for facilities regarding the adjustment of tests or test timetables, an adjusted arrangement regarding compulsory attendance for educational activities, working in groups and an adjusted internship. These facilities should be sought from the Examination Board.  
Advice regarding the continuation of studies may be deferred for students with entrepreneur status. (see article 32)

### **Section 5 Study programme content**

#### **Article 13 Study programme profile – main subjects/differentiations – occupational requirements**

1. The study programme is based on a study programme profile. The exit qualifications of the study programme are described in the study programme profile. *The study programme profile is laid down in appendix 1.*
2. The study programme has no main subjects.
3. The principle of the study programme is mentioned in the Register of Study Programmes.
4. There are *no* specific occupational requirements for this study programme laid down.

## Article 14 Study programme layout

1. Each Bachelor's programme has a foundation year phase with a study load of 60 credits, which is concluded with the foundation year examination. The function of the foundation year is to orientate the student, allowing the student to make suitable choices.
2. A Bachelor's programme has a study load of 240 credits with a nominal study load of 60 credits per academic year. *In semester 6 or 7, the student can choose a minor.*

## Article 15 Overview of units of study and credits

1. Every study programme consists of a coherent set of units of study, which are components of a study programme concluded with an interim examination. Units of study cannot exceed 30 credits.
2. Only whole credits are awarded for units of study.
3. Study programmes and tests conducted in a foreign language are subject to the Code of Conduct for Study Programmes taught in a Foreign Language; the overview of units of study states which teaching and testing is *provided* in a foreign language.  
*In Eindhoven, the programme is offered in English. The exception is the propaedeutic year in the demand-based learning format.*  
*In Tilburg, the programme is offered in Dutch. However, the teaching materials may be in English.*
4. A shortened programme can be offered to students transferring from a related Associate Degree (AD) programme. The shortened programme corresponding to each Associate Degree programme is specified in the TER. *The follow-up programme lasts 2.5 years, during which time the student enters a specialisation of his/her choice in semester 4 of the bachelor's programme. The student is granted exemption for semesters 1, 2 and 3.*
5. *In the tables in paragraph 9, it is indicated per unit of study in which teaching methods they are offered and which choices can be made. The learning outcomes within a unit of study are the same regardless of the teaching method.*
6. *Units of study shall be assessed by examiners at the end of the semester based on a portfolio assessment. The portfolio may consist of professional products that have been handed in, written tests on knowledge, feedback given and received, etc. Throughout the semester, the teaching staff will give feedback on this. The content of the portfolio is meant to demonstrate the knowledge, insight and skills required for the relevant unit of study. The FHICT programme guide and Canvas outlines the content and requirements regarding the portfolio.*
7. *Continuation shall be determined by whether or not students achieve a passing grade for the unit of study. If a student has not achieved a passing grade for a unit of study, the student shall be required to follow the relevant unit again.*
8. The table below provides an outline of the allocation of credits.  
*Where the indicated assessment scale is U / S / G / O, this always means Unsatisfactory / Satisfactory / Good / Outstanding.*
9. *For the entry requirements, the tables below refer to the FHICT Programme Guide from semester 6 onwards, because the entry requirements are related to the competences in the HBOi 2018 domain description and cannot easily be included in a column.*

### Foundation year phase

Unit of study	Credits	Test type	Assessment Indiv. or group	Assessment scale	Substantive entry requirements	Teaching method
<b>First semester<sup>5</sup>: Orientation on ICT</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O		Choice between course-based and demand-based learning

<sup>5</sup> MBO4 students who have passed the pre-assessment may be exempted from this unit of study. See also article 7 paragraph 2.



*Student chooses one of the following units of study in semester 2.*

Unit of study	Credits	Test type	Assessment Indiv. or group	Assessment scale	Substantive entry requirements	Teaching method
<b>Semester 2 ICT &amp; Business: De IT Entrepreneur</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Within the First Semester, the learning outcomes of ICT & Business have been demonstrated.	Choice between course-based and demand- based learning
<b>Semester 2 ICT &amp; Infrastructure: Managing your Journey to the Cloud</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Within the First Semester, the learning outcomes of ICT & Infrastructure have been demonstrated.	Choice between course-based and demand- based learning
<b>Semester 2 ICT &amp; Media Design: Explore the Universe of Media Design</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Within the First Semester, the learning outcomes of ICT & Media Design have been demonstrated.	Choice between course-based and demand- based learning
<b>Semester 2 ICT &amp; Software Engineering: Basic Software Engineering</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Within the First Semester, the learning outcomes of ICT & Software Engineering have been demonstrated.	Choice between course-based and demand- based learning
<b>Semester 2 ICT &amp; Technology: Introduction to Technical Systems</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Within the First Semester, the learning outcomes of ICT & Technology have been demonstrated.	Choice between course-based and demand- based learning
<b>Pilot Semester 2 ICT &amp; Personalised Program: Personalised Unit of Study</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O		Open learning
Total foundation year	60					

## **Main Phase**

*Student chooses one of the following units of study in semester 3.*

Unit of study	Credits	Test type	Assessment Indiv. or group	Assessment scale	Substantive entry requirements	Teaching method
<b>Semester 3 ICT &amp; Business: Data Driven International Business Innovation</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 2 ICT & Business has been successfully completed.	Choice between course-based and demand- based learning
<b>Semester 3 ICT &amp; Infrastructure: Intelligent Infrastructure Automation</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 2 ICT & Infrastructure has been successfully completed.	Choice between course-based and demand- based learning
<b>Semester 3 ICT &amp; Media Design: Choose Your Media Adventure</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 2 ICT & Media Design has been successfully completed.	Choice between course-based and demand- based learning
<b>Semester 3 ICT &amp; Software Engineering: Agile Development of Client- server Applications</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 2 ICT & Software Engineering has been successfully completed.	Choice between course-based and demand- based learning
<b>Semester 3 ICT &amp; Technology: Cyber Physical Systems</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 2 ICT & Technology has been successfully completed.	Choice between course-based and demand- based learning
<b>Semester 3 ICT &amp; Personalised Program: Personalised Unit of Study</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O		Open learning
Total foundation year	60					

Student chooses one of the following units of study in semester 4.

Unit of study	Credits	Test type	Assessment Indiv. or group	Assessment scale	Substantive entry requirements	Teaching method
<b>Semester 4 ICT &amp; Academic Preparation: Foundations of Computer Science</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Propaedeutic year has been completed	Research-based learning
<b>Semester 4 ICT &amp; Cyber Security: Introduction Into Cyber Attack and Defense</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Propaedeutic year has been completed	Research-based learning
<b>Semester 4 ICT &amp; Artificial Intelligence: Machine Learning</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Propaedeutic year has been completed	Research-based learning
<b>Semester 4 ICT &amp; Creative Technology</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Propaedeutic year has been completed	Research-based learning
<b>Semester 4 ICT &amp; Education<sup>6*</sup></b>	<b>30</b>	Portfolio assessment	Individually	1 t/m 10	Propaedeutic year has been completed	Research-based learning
<b>Semester 4 ICT &amp; Game Design and Technology: Introduction to Game Design and Game Programming</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Propaedeutic year has been completed	Research-based learning
<b>Semester 4 ICT &amp; Smart Mobile: Introduction to Mobile Design &amp; Development</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Propaedeutic year has been completed	Research-based learning
<b>Semester 4 ICT &amp; Smart Industry and IoT: Introduction to Smart Industry and IoT</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Propaedeutic year has been completed	Research-based learning
<b>Semester 4 ICT &amp; Personalised Program: Personalised Unit of Study</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Propaedeutic year has been completed	Open learning

\* Because semester 4 ICT & Education is provided by another institute, the internship preparation will be offered in parallel by FHICT.

### Semester 5

Unit of study	Credits	Test type	Assessment Indiv. or group	Assessment scale	Substantive entry requirements	Teaching method
<b>Semester 5 Internship ICT</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 3 or semester 4 has been successfully completed..	Research-based learning or Open learning

<sup>6</sup> The specialisation semesters 4 & 7 (semester 7 is not yet offered in the new curriculum) together form the educational track ICT and are designed together with the Fontys Pedagogical Technical University (PTH), part of Fontys University of Applied Sciences Business Management, Education and Technology (FH BEnT). During these semesters, students work on the competency requirements of being a teacher and the underlying knowledge base. Upon successful completion of these 60 EC, students receive an HBO-ICT certificate stating that the student, in accordance with article 36 of the WVO and article 4.2.3 of the WEB, meets the requirements as stated in the Decree on the Competence Requirements for Teaching Staff for VO teachers and lecturers. This means that the student is qualified to teach ICT in VMBO, HAVO/VWO and MBO. The implementation and assessment of the education from these specialisation semesters and the registration of the result lies entirely with the examiners of the Pedagogical Technical University. The examination committee of FH BEnT, training room PTH advises the examination committee of the HBO-ICT programme on whether or not the components that have been implemented and assessed by the programme have been passed. For more information on these components you are referred to the OER of the Pedagogical Technical University of Applied Sciences (Onderwijs- en examenregeling (OER) | Fontys and the study guide educational track part 1 and 2..

*Student chooses one of the following units of study in semester 6.*

Unit of study	Credits	Test type	Assessment Indiv. or group	Assessment scale	Substantive entry requirements	Teaching method
<b>Advanced ICT &amp; Business: Data Driven Enterprise Strategy</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 3 ICT & Business has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Infrastructure: Designing Infrastructure Solutions</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 3 ICT & Infrastructure has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Media Design: Prepare for Launch</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 3 ICT & Media Design has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Software Engineering: Enterprise Software Engineering</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 3 ICT & Software Engineering has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Technology: High Tech Embedded Software Development</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 3 ICT & Technology has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Academic Preparation</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Academic Preparation has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Artificial Intelligence: Deep Learning</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Artificial Intelligence has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Cyber Security: Specialisations in Cyber Security</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Cyber Security has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Creative Technology</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Creative Technology has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning

<b>Advanced ICT &amp; Education<sup>7*</sup></b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Education has been successfully completed	
<b>Advanced ICT &amp; Game Design and Technology: Advanced Game Design and Technology</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Game Design and Technology has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Smart Mobile: Advanced Mobile Design and Development</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Smart Mobile has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Smart Industry and IoT: Smart Industry and IoT 7</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Smart Industry and IOT has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>ICT &amp; Personalised Program: Personalised Unit of Study</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	See the FHICT Programme Guide	Open learning
<b>Minor<sup>8</sup></b>	<b>30</b>	Depending on the chosen minor				

<sup>7</sup> The specialisation semesters 4 & 7 (semester 7 is not yet offered in the new curriculum) together form the educational track ICT and are designed together with the Fontys Pedagogical Technical University (PTH), part of Fontys University of Applied Sciences Business Management, Education and Technology (FH BEnT). During these semesters, students work on the competency requirements of being a teacher and the underlying knowledge base. Upon successful completion of these 60 EC, students receive an HBO-ICT certificate stating that the student, in accordance with article 36 of the WVO and article 4.2.3 of the WEB, meets the requirements as stated in the Decree on the Competence Requirements for Teaching Staff for VO teachers and lecturers. This means that the student is qualified to teach ICT in VMBO, HAVO/VWO and MBO. The implementation and assessment of the education from these specialisation semesters and the registration of the result lies entirely with the examiners of the Pedagogical Technical University. The examination committee of FH BEnT, training room PTH advises the examination committee of the HBO-ICT programme on whether or not the components that have been implemented and assessed by the programme have been passed. For more information on these components you are referred to the OER of the Pedagogical Technical University of Applied Sciences (Onderwijs- en examenregeling (OER) | Fontys and the study guide educational track part 1 and 2..

<sup>8</sup> In semester 6 or 7, the student may choose to take a minor. The student can only take 1 minor

Student chooses one of the following units of study in semester 7.

Unit of study	Credits	Test type	Assessment Indiv. or group	Assessment scale	Substantive entry requirements	Teaching method
<b>Advanced ICT &amp; Business: Data Driven Enterprise Strategy</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 3 ICT & Business has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Infrastructure: Designing Infrastructure Solutions</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 3 ICT & Infrastructure has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Media Design: Prepare for Launch</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 3 ICT & Media Design has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Software Engineering: Enterprise Software Engineering</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 3 ICT & Softw are Engineering has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Technology: High Tech Embedded Software Development</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 3 ICT & Technology has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Academic Preparation</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Academic Preparation has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Artificial Intelligence: Deep Learning</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Artificial Intelligence has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Cyber Security: Specialisations in Cyber Security</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Cyber Security has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Creative Technology</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Creative Technology has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Education<sup>9*</sup></b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Education has been successfully completed	

<b>Advanced ICT &amp; Game Design and Technology: Advanced Game Design and Technology</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Game Design and Technology has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Smart Mobile: Advanced Mobile Design and Development</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Smart Mobile has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>Advanced ICT &amp; Smart Industry and IOT: Smart Industry and IOT 7</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	Semester 4 ICT & Smart Industry and IOT has been successfully completed or the relevant level has been demonstrated in Personalised Program	Research-based learning
<b>ICT &amp; Personalised Program: Personalised Unit of Study</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	See the FHICT Programme Guide	Open learning
<b>Minor<sup>10</sup></b>	<b>30</b>	Depending on the chosen minor				

#### Semester 8.

Unit of study	Credits	Test type	Assessment Indiv. or group	Assessment scale	Substantive entry requirements	Teaching method
<b>Semester 8 Graduation ICT</b>	<b>30</b>	Portfolio assessment	Individually	U / S / G / O	See the FHICT Programme Guide	Research-based learning or Open learning

#### **ICT & Software Engineering Short-Track**

*This track is only available to students with a VWO (pre-university education) diploma with maths B or a foreign diploma equivalent to that and to students who are admitted to a related university programme in the Netherlands, who have passed the pre-assessment. Also see Article 7. The diploma received through completion of this track is equal to that of the specialisation ICT & Software Engineering with the 2<sup>nd</sup> year specialisation ICT & Academic Preparation plus a pre-master programme of Eindhoven University of Technology (TU/e) as a minor. This diploma also makes students directly admissible to the equivalent master programme of the TU/e.*

<sup>9</sup> The specialisation semesters 4 & 7 (semester 7 is not yet offered in the new curriculum) together form the educational track ICT and are designed together with the Fontys Pedagogical Technical University (PTH), part of Fontys University of Applied Sciences Business Management, Education and Technology (FH BEnT). During these semesters, students work on the competency requirements of being a teacher and the underlying knowledge base. Upon successful completion of these 60 EC, students receive an HBO-ICT certificate stating that the student, in accordance with article 36 of the WVO and article 4.2.3 of the WEB, meets the requirements as stated in the Decree on the Competence Requirements for Teaching Staff for VO teachers and lecturers. This means that the student is qualified to teach ICT in VMBO, HAVO/VWO and MBO. The implementation and assessment of the education from these specialisation semesters and the registration of the result lies entirely with the examiners of the Pedagogical Technical University. The examination committee of FH BEnT, training room PTH advises the examination committee of the HBO-ICT programme on whether or not the components that have been implemented and assessed by the programme have been passed. For more information on these components you are referred to the OER of the Pedagogical Technical University of Applied Sciences (Onderwijs- en examenregeling (OER) | Fontys and the study guide educational track part 1 and 2..

<sup>10</sup> In semester 6 or 7, the student may choose to take a minor. The student can only take 1 minor

### Software Engineering Short-Track, foundation year phase

Unit of study	Credits	Test type	Assessment Indiv. or group	Assessment scale
<b>First semester:<sup>11</sup> Orientation on ICT</b>	<b>30</b>	Portfolio assessment	Individually	U/ S/ G/ O
<b>Semester 2 ICT &amp; Software Engineering: Basic Software Engineering</b>	<b>30</b>	Portfolio assessment	Individually	U/ S/ G/ O
Total	60			

### ICT & Software Engineering Short-Track, Main Phase

Unit of study	Credits	Test type	Assessment Indiv. or group	Assessment scale
<b>Academic Preparation Accelerated 1<sup>12</sup></b>	<b>8</b>	Portfolio assessment	Individually	U/ S/ G/ O
<b>Semester 3 ICT &amp; Software Engineering: Agile development of client-server applications</b>	<b>30</b>	Portfolio assessment	Individually	U/ S/ G/ O
<b>Academic Preparation Accelerated 2</b>	<b>7</b>	Portfolio assessment	Individually	U/ S/ G/ O
<b>Internship ICT &amp; Software Engineering</b>	<b>30</b>	Portfolio assessment	Individually	U/ S/ G/ O
<b>Academic Preparation Accelerated 3</b>	<b>8</b>	Portfolio assessment	Individually	U/ S/ G/ O
<b>Semester 5 ICT &amp; Software Engineering: Enterprise Software Engineering</b>	<b>30</b>	Portfolio assessment	individually	U / S / G / O
<b>Academic Preparation Accelerated 4</b>	<b>7</b>	Portfolio assessment	individually	U / S / G / O
<b>Minor, being a pre-master at TU/e or Jads</b>	<b>30</b>	Depends on the chosen minor		
<b>Graduation Project ICT &amp; Software Engineering</b>	<b>30</b>	Portfolio assessment	individually	U / S / G / O
Total	180			

### Article 16 Content of minors and other special programmes

- Students are not restricted in their choice of a minor, whether the minor specific is a minor specific to a study programme or one offered across Fontys, or an external minor, provided there is no overlap with the major programme (also see paragraph 2). *The student is also free to choose a profile and a specialisation semester or personalised program, in which case no minor will be registered.*

The programme provides the following minor programmes:

- *Global Acting in IT (minor GA)*
- *Essential Embedded Systems*
- *Advanced Embedded Systems*
- *XR Design (minor XR)*

The following minors cannot be taken as they overlap with the major:

- *The cross-Fontys minor Digital Experience Design may not be followed by students who have chosen the ICT & Media Design specialisation.*
- *The cross-Fontys minor Cyberstars may not be followed by FHICT students.*

- Students who want to take a minor abroad or an external minor must seek the Examination Board's permission regarding their personal choices with respect to the minor prior to its start. Participation in a minor requires students *to have passed the first five semesters of their studies*, unless the Examination

<sup>11</sup> Through a pre-assessment, students who are admissible to this track can be exempted from this unit of study.

<sup>12</sup> The post-foundation year unit of study AP1 must be followed and completed in the foundation year, in tandem with semester 2. Also see Appendix 2 ICT & Software Engineering Short-Track.



Board grants them permission to take the minor without fulfilling this requirement. *The minor is scheduled in semester six or seven. The student can choose whether to take the minor in semester six or seven.*

3. Enrolment in a minor must be done before the start date as stated on the Fontys minor portal or in the minor regulations. *Other regulations from the implementing authorities may apply to minors abroad or external minors.*
4. High-achieving students can take a minor on top of the regular study programme of 240 credits. A minor that has been passed will be mentioned on the diploma supplement. *Within this context, a student is excellent if the student is motivated and ambitious enough to want to follow an additional minor.*
5. The Fontys Empower reorientation programme is open to students who have hit a roadblock in their studies. The programme has a study load of 30 ECTS credits. The regulations for this reorientation programme can be found on the Pulsed portal: <https://fontys.nl/fontyshelpt/Andere-studie/Empower-TEC-kickstartprogramma.htm>  
A student who has taken part in the Fontys Empower programme and has successfully completed all components of that programme may, on that basis, be granted an exemption for a minor, provided the student requests an exemption from the Examination Board of the programme in which they are enrolled, unless that programme does not offer a minor.
6. *An alternative track can be offered to students who after 2 attempts fail to complete a unit of study. With this alternative track, the student can demonstrate the learning outcomes of the relevant unit of study and obtain information on other study programmes. The FHICT programme guide shall outline the content of the alternative track.*

#### **Article 17 Education components - learning environment**

1. Below is an overview of the educational activities offered by the study programme.  
*The education activities are outlined in the FHICT programme guide. The FHICT programme guide shall be published on the website no later than 1 week before the start of a semester.*  
The education components of the minors are described in the minor regulations. The regulations governing the minors offered across Fontys can be found at [www.fontys.nl/minors](http://www.fontys.nl/minors). The regulations governing minors specific to study programmes are included in the *TER 2021-2022 HBO ICT Full time Dutch Stream*.
2. Any entry requirements a student must meet before participating in an education component shall be stated in the overview referred to in paragraph 1.  
*The entry requirements for participation in educational activities are described in article 15 paragraph 9, the FHICT programme guide and the advancement standards. The advancement standards are included in Appendix 3.*
3. Participation in education components in the post-foundation year phase is allowed after passing the foundation year examination. The Examination Board may grant permission to a student who has not passed the foundation year examination to participate in education components in the post-foundation year phase. *(Section 7.30 of the WHW.)*
4. Enrolment in the education components proceeds as follows:  
*The student will be asked by e-mail in week 8 to make his choice of a unit of study and the associated teaching method for each possible follow-up semester, no later than in week 12. In week 11, the student will receive a reminder e-mail to make his choice. After week 12, the logical standard choice applies if possible and can only be changed via the examination board with a solid substantiation for the late change.*
5. The class (lecture) timetable shall be published *on the FH ICT intranet no later than 1 week before the start of classes.*
6. Students who have registered for an education component must ensure that they meet the entry requirements of that component. The overview in Article 16, paragraph 1, indicates the education components to which requirements apply for participation as well as the nature of these requirements. If the requirements concern compulsory attendance, students who are eligible for the Elite athletes scheme or the Student entrepreneur scheme can apply to meet this requirement in a parallel group or for exemption from this obligation (see also Article 12).

#### **Article 18 Evaluation of teaching**

The teaching provided during the study programme shall be evaluated in the following way.

*Halfway the semester teaching and teacher evaluations shall be sent out to all students (with the exception of graduating students and internship students). Sessions will be scheduled for each course to discuss the results of the teaching evaluations. Given the nature of the first semester, a second educational evaluation can be requested at the end of the semester. If there are compelling reasons to do an extra evaluation in*

another block than the first semester, this can be requested, giving reasons.. In the case of internships or graduation, the teaching evaluations shall be made available to students at the end of the semester. The results of the teaching evaluation shall be published on the student platform. Improvements made as a result of the teaching evaluations are laid down on Canvas. The results of the teaching evaluations are also taken into account in the performance review cycle of teaching staff. For questions or complaints, contact [kwalitytszorg-fhict@fontys.nl](mailto:kwalitytszorg-fhict@fontys.nl).

## **Section 6 Tests, evidence, assessment and study progress**

### **Article 19 Types of tests - evidence**

1. A test consists of/may consist of:
  - a. one or more mandatory tests or mandatory partial tests;
  - b. freely chosen evidence evaluated as an assessment, such as a portfolio;
  - c. a combination of a and b.
2. Tests are conducted in writing or orally or in a fashion that combines both writing and oral delivery (e.g. product and presentation/interview).  
*A mixed (combined) test relates to an oral clarification regarding a professional product. Oral tests shall never be on the basis of a professional product.*
3. An oral examination, including an assessment, shall be conducted by at least two examiners, with one of them acting as the principal examiner designated by the (chairman of the) Examination Board. A report must always be drawn up of an oral test to enable an assessment of the quality afterwards. A test may be conducted by a single examiner only following the approval of the Examination Board and provided the student does not object. *A combined test must also be conducted by at least two examiners.*  
 An oral test is held in public. Interested parties who wish to attend an oral test must submit a request to that effect to the examiner(s) at least two weeks before the test is held. The examiner must inform the student who is taking the test. If the student objects, the request to attend the oral test will in any event be rejected. Any rejection by the examiner will be substantiated.  
 When the Examination Board offers students the possibility to sit an additional oral test by way of replacement of a regular test, it will always be conducted and assessed by two examiners.
4. If a test consists of an assessment of freely-chosen evidence, the programme should allow the student to collect such evidence and receive feedback from the examiners, external experts and/or peers. The requirements that the evidence must meet are given in *Canvas*.

### **Article 20 Tests and assessment**

1. The Examination Board will designate one or more examiners for each test. An examiner can also be an external expert.
2. The assessment of minors is described in the minor regulations. The examiner of the minor determines whether a student has passed the tests. The Examination Board of the coordinating institute that offers the minor must determine whether the student has passed the minor and ensure that the student receives a certificate. The result achieved for the minor is forwarded to the programme administration of the study programme in which the student concerned is enrolled.

### **Article 21 Content of tests, duration of the test, test aids and test timetable**

1. The content of each test, including the learning outcomes, is described in *Canvas* and in the *FHICT programme guide* and is made available to students 1 week before the start of the semester with the publication of this programme guide.
2. The examiner determines the period of time allowed to students to take the test as well as any aids that students may use during the test, subject to the guidelines and instructions provided by the Examination Board. This information must be stated on the examination paper and in the *FHICT programme guide*.
3. The test timetable for a particular teaching period shall be announced via email no later than 1 week before the start of that examination period.

### **Article 22 Registration for tests**

*Registration for tests is not required.*

### **Article 23 Proof of identity during tests**

Students shall prove their identity at every test by showing a valid form of legal ID other than a student ID card (no student pass).

#### **Article 24 Test marking system**

1. The assignments, questions, assessment norms and criteria are determined by the examiners with due regard for the guidelines and instructions provided by the Examination Board. The examiner conducts the test and determines the result on the basis of the determined assessment standards and assessment criteria. *The assessment criteria are published on Canvas.*
2. If one and the same test is conducted and assessed by more than one examiner, the Examination Board will ensure that these examiners adhere to the same standards and criteria.

#### **Article 25 Test results**

1. The test results must be announced in writing to the student within ten days of the date of the test apart from the exceptions laid down in the Teaching and Examination Regulations. The study programme administration is responsible for announcing the test results. The privacy of students will be respected when test results are announced.
2. Students are entitled to inspect all assessed tests and the accompanying assessment criteria and to be given feedback on the results.
3. Inspection is subject to the procedure described below.  
*All feedback and comments on deliveries are visible to the students in Canvas at any time during the semester. Students can discuss this feedback and the comments with their teachers on simple request until 6 weeks after their work was graded.*
4. Feedback is given according to the following procedure.  
*Feedback shall be provided during the review session and during the formative indications.*
5. Students will receive a general email at least once a year regarding the then-current state of affairs in Progress Dashboard. The email shall also provide students with the option of collecting an official, certified list of results achieved, which can be used to exercise certain rights.

#### **Article 26 Inability to sit tests**

1. Students who have acted in accordance with the registration procedure described in Article 22 but who are unable to sit the test for reasons beyond their control, the legitimacy of which is subject to the discretion of the Examination Board, may apply to the Examination Board to sit the test within a period of time to be set by the Board.
2. The application referred to in the previous paragraph must be submitted in writing to the chairman of the Examination Board and include the necessary evidence (see Article 38 (3)). The Examination Board will then take a decision and inform the student concerned. If the request is granted, the Examination Board will set a date, time and place for the test. Any rejection of the request will be substantiated and the student will be informed of his right to appeal. In assessing the request, the Examination Board's primary criteria are the obstruction of the study progress and the student's personal circumstances.
3. If such a request relates to a test of a minor offered across Fontys, the student must direct the request to the coordinating institute responsible for the minor, as described in regulations governing the minor.

#### **Article 27 Request for a review**

1. Students who do not agree with an assessment can submit a request for a review of the assessment to the Examination Board within 4 working weeks after the date of the assessment (see Article 38 (3) of these Teaching and Examination Regulations and Article 44 of the Students' Charter). The Examination Board must take a decision within 4 work weeks at a maximum.
2. Students may also appeal directly to the Examination Appeals Board within 6 calendar weeks after the date of the assessment via [www.fontys.nl/studentenloket](http://www.fontys.nl/studentenloket). (see Article 45 and Article 46 of the Students' Charter).

#### **Article 28 Resits**

1. Students can resit components marked with a passing grade at least once, and no more than once, in which case the highest mark will count.  
*A practice-based semester is a semester in which an authentic vocational task is centralized, and the student receives the necessary support in order to develop professional qualifications. As a result, with FHICT, every semester is practice-related. Resits for practice-related semesters can take place in the following semester or no later than in the following academic year. During a practice-related semester, at the student's request, teaching staff will give feedback on professional products. In this way, the student has the chance of remedying shortcomings before the final assessment of the semester. There will be at least two opportunities for written tests and submissions per semester. If the final assessment of the semester is unsatisfactory, at the initiative of the assessor the student can be offered the possibility of remedying the situation before the start of the next semester if it concerns repair of small parts. In such*

case, the student shall hand in an improved or supplemented portfolio of professional products for assessment.

2. At least two opportunities to take tests that assess the material they have learned will be offered. Following these two test opportunities, the material to be studied for the test may be adapted to the material offered in the teaching block prior to the test. An up-to-date description of the material to be tested can be found in the FHICT programme guide.
3. If a test consists of an assessment of freely-chosen evidence, then the programme should offer the student the following option of improving or supplementing the evidence.  
*The evidence collected in the portfolio may consist of formative tests and / or professional products. The student can request feedback on professional products during the semester. This forms a continuous process within the semester, which gives the student many repair options until the final assessment. The formative tests can also be retaken within the semester. Feedback is registered in Feedpulse or via the assignments in Canvas. The student records the feedback in Feedpulse and the assessor gives a rating of the overall performance up to that point, minimal by means of a smiley rating.*
  - a. Within Course-based learning, the learning outcomes and the type of evidence are determined in advance in the FHICT Programme Guide. These can be professional products as well as formative tests.
  - b. Within Demand-based learning, the learning outcomes are determined in the FHICT Programme Guide, but the student is free to collect evidence. The criteria for the evidence materials are published on Canvas. These will be professional products.
  - c. Within Research-based learning, the learning outcomes are determined in the FHICT Programme Guide, but the student is free to collect evidence. The criteria for the evidence materials are published on Canvas. These will be professional products.
  - d. Within Open Learning learning, the student determines his own learning outcomes under supervision and is also free to collect evidence. The criteria for the evidence materials are published on Canvas. These will be professional products.

#### **Article 29 Period of validity of results - evidence**

1. The period of validity of evidence are one semester.  
Results achieved for interim examinations can only lapse if the understanding / knowledge / skills to which these interim examinations relate can be shown to be obsolete. Understanding, knowledge and skills that were assessed more than 10 years ago can evidently be shown to be obsolete.  
The period of validity of successfully completed interim examinations is: 10 years.  
The Examination Board may extend this period.
2. In the event of special circumstances as referred to in the Profiling Fund Scheme, the period of validity of interim examinations will as a minimum be extended by the duration of the support granted on the basis of that scheme.
3. If the study programme has been substantially altered, details on how this period will be restricted may be stated below, whether in the form of a written decision issued to a student or incorporation in the Teaching and Examination Regulations, if it applies to the entire cohort.

#### **Article 30 Graduation product - Knowledge bank**

If the study programme provides for the submission of a graduation product that can be included in a knowledge bank, students must submit the product digitally, as one document, to enable its inclusion in one or more digital knowledge bank(s). On submission of the product, students must also attach the signed 'Permission form for the filing and making available of a graduation product in a digital knowledge bank'. With this form, students give their permission for the graduation product to be entered in the knowledge bank and for it to be made available to potential users at the university of applied sciences and elsewhere.  
On submission of the digital graduation product, the student and/or client and/or organisation offering the internship may indicate their objection to the graduation product being entered in the databank.

#### **Article 31 Study progress**

The study programme is responsible for recording the test results in the programme administration, *the assessments of the learning outcomes are recorded in Canvas.*  
*Administrative errors may be corrected after the grades have been entered, provided it can be demonstrated that such instances were in fact cases of administrative error.*

#### **Article 32 Advice regarding the continuation of studies**

1. During the first year of enrolment in the foundation phase of a bachelor study programme and, where possible, prior to the start of the second semester, the student is given advice on his study progress. If the study progress is unsatisfactory, the student will receive a written warning and be told that if the

study progress continues to be unsatisfactory, the student will receive a binding negative advice regarding the continuation of his studies. A reasonable period within which the student must have improved his grade point average and the opportunities a study programme offers in that regard are stated in the warning. (*Section 7.8b of the Act.*)

A student who has not received a warning at that stage may yet receive one at a later point in the first year if the student has fallen behind, and will be given a period within which to improve his grade point average.

The student will be given a warning in the following cases:

*if the student has not passed the first semester in the foundation year phase.*

2. The study programme must give students advice regarding the continuation of studies in writing before the end of their first year of enrolment (12 months) in the foundation phase. Advice may be related not only to the continuation of the study programme, but also to the main subject the student may take. Advice regarding the continuation of studies can be negative (binding negative study advice), meaning that the student's enrolment in that particular study programme will be terminated and that the student will not be allowed to re-enrol in the same study programme.
3. Advice regarding the continuation of studies is based on the student's results in the foundation year. The Examination Board advises the institute director on advice regarding the continuation of studies to be given. This advice must take into account the student's personal circumstances. Students must report any personal circumstances to their student coach's or student counsellors the moment they occur. If the student misses the deadline for reporting special circumstances, the Examination Board will examine whether it was excusable for the student to miss the deadline for reporting those circumstances.

Engaging in elite sports activities by students who have been granted an Elite Sport or Talent status are entitled is regarded as a special circumstance, on the basis of which the delivery of advice regarding the continuation of studies can be deferred. The practice of running a business of his own by student entrepreneurs who have been awarded student entrepreneur status, as defined in the Fontys Student entrepreneur scheme, is also regarded as a special circumstance, on the basis of which the delivery of advice regarding the continuation of studies is deferred.

The student will be given positive advice regarding the continuation of studies:

- *if the student has passed the first semester in the foundation year phase.*

The student will be given a binding negative advice regarding the continuation of studies in the following cases:

- *if the student has not passed the first semester in the foundation year phase.*

4. Where there are special circumstances as defined in paragraph 3 of this article which may have had an influence on the credits the student obtained, the delivery of advice regarding the continuation of studies may be deferred until the end of the second year of enrolment or until the end of a shorter period. At the end of the second year or the shorter period, there will be a further review of whether the student has met the criteria for a positive study advice as defined in paragraph 4.
5. Students who seek the termination of their enrolment during the first year of enrolment will be given a warning from the director stating his expectation that they may not be suitable for the study programme. The director must seek the advice from the Examination Board before doing so. The number of months of enrolment students have left before being given advice regarding the continuation of studies must also be determined in the event the student should decide to enrol in the same study programme at a later date (also see Article 35).
6. *Students shall only be admitted to the specialisations in ICT & Business, ICT & Infrastructure, ICT & Media, ICT & Software Engineering, and ICT & Technology in the post-foundation year phase if they meet the criteria below:*
  - *Students have successfully followed semester 2 of the foundation year programme within the same profile.*

*The reference to the correct profile shall be issued upon passing the foundation year.*

### **Article 33 Additional provisions concerning binding negative advice regarding the continuation of studies**

1. An institute wishing to issue binding negative advice regarding the continuation of studies must make provisions that allow for, among other things, a student's personal circumstances and which are aimed at guaranteeing a student's good progress.
2. Binding negative advice regarding the continuation of studies is valid for a period of 7 years.
3. At the student's request, the institute director can change the period or give permission for a student to re-enrol in spite of the binding negative advice as referred to in Section 7.8b(3) of the WHW'

4. A binding negative advice regarding the continuation of studies refers to the full-time, part-time and dual form of the relevant study programme, unless otherwise specified in the advice. *The advice also applies to the associate degree study programme AD-ICT.*
5. Each binding negative advice regarding the continuation of studies must expressly state that the binding negative advice only refers to the study programme mentioned. Every binding negative study advice regarding the continuation of studies must include a referral, to either another study programme, the student counsellor or the study choice adviser.

## Section 7 Graduation

### Article 34 Examinations – certificates – diploma supplement

1. Students have passed the examination of the foundation year or the study programme if they have passed all units of study which form part of the foundation year or the study programme, as referred to in Article 15. *(Section 7.10 of the WHW).*
2. Certificates are issued at the following occasions:
  - on passing the foundation year examination;
  - on passing the study programme's final examination.
3. The certificate shall only be issued after it has been established that the student is enrolled and has paid his tuition fees for all the enrolment years *(Section 7.11 of the WHW).*
4. After successful completion of the examination, the Examination Board awards the certificate. The certificate is dated on the date of the student's final academic activity (test or assessment). The certificate of a study programme comes with a diploma supplement. This diploma supplement may include mention of a student's board activities (see Article 10). Students who have served as members of the Examination Appeals Board may also request that activity to be included on their diploma supplement.  
 The Examination Board will determine whether a student has passed within a maximum of eight calendar weeks after the student's final academic activity (test or assessment).  
 If the student wishes for the certificate to be dated later, the student must postpone the completion of his final academic activity (test or assessment).  
 The certificate is signed on behalf of the Examination Board by the (deputy) chairman, the (deputy) secretary, the examination candidate and, if applicable, by an external expert *(Section 7.11 of the WHW)*. On behalf of the institute, the Examination Board also confers on the student the degree if the student has taken the study programme.
5. For the study programme's examination the degree Bachelor of Science (BSc) is awarded.
6. The award ceremony takes place at a time decided by the institute.  
 Students who passed the study programme examination and have requested the postponement of the award of the certificate may be issued a statement that the study programme degree has been conferred on them. *(Section 7.11 of the WHW).*
7. The certificates of students whose performance has been extraordinary will state the distinctions referred to below. The distinction 'cum laude' is the highest degree possible.  
 Students will be awarded the distinction 'cum laude' if they meet the following criteria:  
*The distinction 'cum laude' is not possible for the foundation year certificate.*  
*The distinction 'cum laude' is possible for the Bachelor's certificate.*  
*The following 'cum laude' criteria shall apply to the Bachelor's certificate:*
  - the student has passed all components of semesters 6,7 and 8 uninterrupted (without restart) **AND**
  - the graduation project has been marked Outstanding **AND**
  - semester 6 or 7 has been marked Outstanding (external or cross Fontys minors do not count, but the course minors do)
 Students will be awarded the distinction 'with merit' if they meet the following requirements: *N/A.*
8. The Executive Board reports the students who have passed the final examination of the study programme to DUO.

### Article 35 Statement on departure

1. Every student who seeks to terminate his enrolment without having passed the study programme's final examination shall be invited for an interview.
2. At the student's request, the student may be issued a statement listing any results achieved.
3. The statement must specify that the interim examination test results will in principle be valid for ten years. The statement can include a reservation in the event of a substantial overhaul of the study programme. See Article 29.

## Article 36 Transfer

1. *In order to ensure a smooth transfer to a Master's programme at the TU/e, students may follow the TUE-A and TUE-B specialisation components and subsequently take a free choice minor of TU/e courses from the bridging programme or pre-master's programme. During semester 2 of the programme, an entrance test shall be taken for this track, supported by a series of courses. Further information on is detailed in the FHICT programme guide of the second semester of Software Engineering. Students who meet the admission requirements can also take the Software Engineering Short-Track programme for the same transfer.*
2. *In order to facilitate a smooth transfer to a Master's programme at the University of Tilburg, students may follow a free choice minor consisting of courses from the University of Tilburg's bridging or pre-Master's programme.*
3. *The student may progress to the Master of Applied IT if the student meets the admission requirements and the selection criteria. For that, see article 2 of the OER 2022-2023 Master of Applied IT.*

## Section 8 Irregularities and fraud

### Article 37 Irregularities and fraud

1. If irregularities are discovered in connection with a test, as a result of which the Examination Board cannot guarantee the test's quality and any of its results, the Examination Board may forgo having the test checked, or declare a test result void. In such cases, the Examination Board must ensure that an opportunity to resit the test in the near future is offered to the affected students.
2. If a student is guilty of an irregularity committed with respect to (a component of) an examination or fraud, the Examination Board may exclude the student from sitting one or more tests of the study programme for a period to be determined by the Examination Board but which will not exceed one year. Any act that contravenes the regulations that have been established regarding testing and assessment shall be considered fraud in the sense of this article. If the test has already been assessed, the result will be declared void.  
*Violations of prescribed rules concerning the procedures for testing shall also be regarded as fraud. The rules concerning the procedures for written tests, oral tests and digital tests are available on the intranet.*
3. In the case of serious fraud, the Examination Board can propose to the Executive Board that the enrolment of the student involved be prematurely terminated (*Section 7.12b of the WHW*).
4. If the irregularity or fraud is only discovered after the examination, the Examination Board may withhold or claim back the certificate of the study programme or decide that the certificate will not be issued unless the student sits a new test or examination in the components to be determined by the Examination Board and in a fashion to be determined by the Examination Board.
5. Before taking a decision, the Examination Board will hear the student and any other interested parties. A report will be drawn up of this hearing, of which a copy is forwarded to the student. The Examination Board must notify the student of its decision without delay, which notification can be given orally if required but must in any event also be issued in writing. Furthermore, the student is informed of his right of appeal.
6. The Examination Board makes up a report of its decision and the facts it is based on.

## Section 9 Examination Board, appeals

### Article 38 Examination Board

1. The institute director establishes an Examination Board for each study programme or group of study programmes.
2. The Examination Board's duties and responsibilities are laid down in the WHW. (*Sections 7.12, 7.12b and 7.12c of the WHW*). These include the following duties and responsibilities:
  - responsibility for guaranteeing the quality of testing;
  - responsibility for guaranteeing the quality of the organisation of and the procedures surrounding tests and examinations;
  - to determine objectively and professionally whether a student has passed an examination;
  - to award certificates and the diploma supplement;
  - to determine alternative tracks;
  - to assess applications for exemptions and reviews and to award applications for special facilities;
  - to determine whether an examination has been conducted in a way other than that prescribed in the TER;

- approval of the details of a foreign minor or external minor;
- to give advice to the institute director on advice regarding the continuation of studies to be issued.

*The composition of the Examination Board is laid down separately in the Composition of the Examination Board.*

3. *An application to the Examination Board can be submitted to the Secretary of the Board (see also Article 26(2) and Article 27).*

### **Article 39 Appeals**

Students who do not agree with a decision of the Examination Board can lodge an appeal against this decision within six calendar weeks after the date of the decision with the Examination Appeals Board (see Articles 45 and 46 of the Students' Charter). (*Section 7.61 of the WHW.*)

Notices of appeal should preferably be submitted in digital format via the portal of the Examination Appeals Board. See the website for more information. Students can contact the Student Counselling Office (iStudent@fontys.nl) for help on lodging an appeal.

## **Section 10 Retention and hardship clause**

### **Article 40 Retention of documents**

1. The Examination Board is responsible for retaining the minutes of its meetings and its decisions for a period of seven years.
2. The Examination Board is responsible for retaining its issued statements, among others, the statement on departure of a student who terminates his enrolment without having passed the study programme's final examination, for a period of ten years.
3. The Examination Board will ensure that the following information on each student will remain in the institute's archives for 50 years:
  - information on whether each student has obtained a foundation year certificate and / or a certificate of higher professional education including the list of marks.
4. The institute director is responsible for retaining test papers/assignments, assessment criteria, marking standardisation, pass marks, test matrices and test analyses for a period of seven years.
5. The institute director is responsible for retaining the lists drawn up and signed by the examiners containing the results achieved for a period of ten years.
6. The institute director is responsible for ensuring that all final papers and other kinds of tests in which students demonstrate their command of all aspects of the final attainment level, including assessments, will be kept for a period of seven years.
7. For the purpose of the external assessment of the programme in connection with accreditation, the institute director will ensure retention of a representative set of tests, including assessments, for a period of two years after the assessment.
8. The institute director is responsible for ensuring that the work completed by the student (written and non-written, including digital work) including assessments, with the exception of the work forming part of the representative set of final papers, is either destroyed or returned to the student after the expiry of a term of at least six months following the publication of the result. This term may be extended if necessary in connection with an appeal procedure.

### **Article 41 Hardship clause**

1. The Examination Board can make provisions for serious injustices that occur as a result of the application of these rules; it can also make decisions in cases not provided for by these rules. In order to decide whether the hardship clause must be applied, the Examination Board must weigh the interests of the student concerned and those of the study programme. Cases requiring immediate action may be heard by the chairperson of the Examination Board or his deputy after which the other members must be notified as soon as possible.
2. Students must apply in writing, stating reasons, to the Examination Board for the application of the hardship clause in accordance with Article 44 of the Students' Charter. The Examination Board decides on the student's application and communicates this decision in writing, stating reasons, to the student concerned, who is also informed of his right of appeal.

## **Section 11 Final provisions and implementation**

### **Article 42 Entry into force, amendments, publication and official title**

1. The TER applies to all students enrolled in the study programme in question during the 2022-2023 academic year.



*This TER only applies to all full-time students of the study programme, who commenced with (or retook) the first semester or second semester from September 2019, students who commenced with (or retook) semester 3 and semester 4 from September 2020, students who commenced with (or retook) semester 5 and semester 6 from September 2021 and student who commence (or retake) semester 7 from September 2022.*

2. The general section of these regulations and any amendments thereto will be established by the Executive Board, after having obtained the consent of the students' section of the Central Participation Council. PC's will be given an opportunity to issue advice to the CPC. That general section of the TER constitutes the basis on which the study programme-specific TER for each study programme will be drawn up before being submitted to the Examination Board for their advice and the (joint) PC and IPC for their advice/consent. The (joint) PC advises the institute director and sends its advice to the IPC for informational purposes. The IPC advises the institute director and sends its advice to the (joint) PC. The establishment of and amendments to the study programme-specific TER are effected following a proposal from the institute and require the consent of the students' section of the competent IPC and the (joint) PC. (see Sections 10.20 and 7.13 of the WHW.)
3. The text of the TER can be amended if warranted by changes to the organisation or organisational components with due observance of the provisions of paragraph 4. In the event of an interim change, the procedure as described in paragraph 2 applies
4. If the interests of an individual student are prejudiced as a result of interim amendments of the regulations, the student may submit a written application to the Examination Board to protest against the amendment of the rules. The Examination Board examines the student's application and bases its decision on a weighing-up of the interest of the individual student on the one hand and the interest of the quality of the study programme on the other.
5. The institute director adopts the study programme-specific TER before 1 June of the academic year preceding the academic year that starts on 1 September and ensures the publication of the study programme-specific component of these regulations and any amendments thereto by making them available for inspection with the secretariat of the study programme and placing them on the website (*studentenplein*).
6. The official title of the Teaching and Examination Regulations of *the full-time HBO-ICT Bachelor's programme of the Fontys University of Applied Sciences ICT* is *TER 2022-2023 HBO-ICT full time – four teaching methods*.

#### **Article 43 Transitional provisions**

When a study programme is subject to a substantial overhaul, the following transitional provisions will apply.

- *The cum laude regulation has been adjusted in this TER. Students who have already started semester 6 in academic year 2021-2022 may apply the old regulation. For the old cum laude regulation, see the TER 2021-2022 HBO-ICT full-time - four teaching methods.*

#### **Article 44 Unforeseen cases**

The Examination Board decides in all cases not provided for by the study programme-specific part of the TER, unless the issue is covered by the institute director's competency.

## Appendix 1 Exit qualifications of the specialisations

The exit qualifications of the bachelor are based on the HBO-i competence framework (see [www.hbo-i.nl](http://www.hbo-i.nl)). This model splits the field of ICT in 5 architectural layers: user interaction, organisational processes, infrastructure, software and hardware interfacing. Also, it defines 5 engineering activities: analysis, advise, design, realisation and manage & control. Since every activity can be done in any architectural layers, the model defines 25 cells. For each cell there are 4 levels of proficiency. Level 1 is an introductory level. Level 2 corresponds to Associate Degree level, level 3 corresponds to Bachelor level and level 4 defines the Master level. For each cell at each level a number of performance indicators are defined, all of which need to be shown by students in order to prove their proficiency at that level. Also, the HBO-i model defines 4 personal skills: future-oriented organisation, investigative problem solving, personal leadership and targeted interaction. The HBO-i model covers all Dublin descriptors. The model is also discussed with and endorsed by the work field.

The third level is considered the desired HBO final level. The rules that must be met are as follows: each of the 5 activities must be demonstrated in at least one of the architecture layers at level 3. In addition, level 2 must be demonstrated in 4 other combinations of activity and architecture layers. The final attainment levels for each profile and specialisation are included in the FHICT Programme Guide.

In addition, the student works on professional development. The student demonstrates professional development within the educational units according to the final levels described in the assessment model for professional development (see appendix 4).

## Appendix 2 Minor regulations of the programme minors

### 1. Name of minor: Embedded Systems (minor ES)

### 2. English name: Embedded Systems

### 3. Content of minor

The Embedded Systems minor concerns building intelligent behaviour into products that we do not experience as computers. Examples are appliances that you use at home, such as your washing machine, coffee maker and oven. Other devices are used for entertainment, such as radio and television. But also in the public space you find them everywhere: street lights, traffic lights, water management. And of course cars and robots are devices where many of the above elements come together.

The domain is so broad that it is too much to cover completely. Therefore, the minor in Embedded Systems focuses specifically on the element that unites all these devices: the interaction of these devices with the physical world in which they operate. This means that we look at the signals from that physical world and how we can measure them and how we can send signals ourselves. We also look at the architecture of embedded systems and how to deal with the limitations of such systems. Finally, we look at how to filter signals in order to extract the right information for a sensible response.

In terms of content, we do not make a clear distinction in the minor, but we expect students with a background in ICT & Technology to have more in-depth knowledge of embedded systems than students with a different background.

#### Summary for diploma supplement

The diploma supplement will contain the name and the number of credits of the minor. If a minor is completed with a positive assessment, the student will receive a certificate. The following summary will be included.

#### Advanced Embedded Systems:

In this minor the student has gained knowledge and skills in the field of signals, sensors and actuators, embedded systems and filtering techniques. In terms of depth, the minor builds on the second-year ICT & Technology curriculum.

#### Essential Embedded Systems:

In this minor the student has gained knowledge and skills in the field of signals, sensors and actuators, embedded systems and filtering techniques. The depth is comparable to the second-year ICT & Technology curriculum.

### 4. Overview of educational activities of the minor)

The programme guide provides an outline of the educational activities. This document is available on the [intranet](#).

### 5. Enrolment for educational activities of the minor

Students shall discuss the minor they intend to follow with the student coach. Students must enrol via Progress Dashboard.

### 6. Minor testing and enrolment for testing (Article 20 and Article 22)

The programme guide outlines the testing and assessment.

### 7. Completion of the minor (see Article 20, paragraph 2)

Students will be creating professional products, which will be assessed. The programme guide provides an outline of the completion criteria of the professional products and of the overall assessment. The assessment scale is U/ S/ G/ O.

### 8. Examination Board

The ICT & Technology examinations division of the FH ICT Examination Board shall be authorised to consider applications from students with regard to the assessment or testing of the minor. The names of the

members of the Examinations Division are available in the Appendix of the TER Composition of the Examination Board.

**9. Validity**

This information shall be valid for the 2022-2023 academic year.

**10. Admission requirements minor**

- Admission to the examination phase of the post-foundation year phase.

**11. Not accessible to:**

Students who do not meet the admission requirements (see paragraph 10).

**No further requirements shall apply to students in relation to participation and completion of the minor other than those stated in these minor regulations.**

## **1. Name of minor: XR Design**

## **2. English name: XR Design**

## **3. Content of minor**

This minor allows all students in the broad undergraduate FHICT to delve into the broad ICT field of extended reality (XR), the umbrella term for virtual reality (VR), augmented reality (AR), and mixed reality (MR).

XR is not a single technology but a collection of rapidly evolving technologies. Most XR systems use 3D computer graphics, real-time simulation techniques and a wide range of input and output devices that create an illusion of presence in a virtual environment.

The application domains are many such as:

- Visualization of complex data and models (medical, chemical, data)
- Entertainment (amusement parks, games)
- Training (device usage, incident training)
- Modelling & Design (art, 3D painting, design)
- Therapies (phobias, fears)
- Architecture (buildings, interiors, landscapes)

To create a virtual world, several aspects must be taken into account. Such as:

- How will the user be monitored? (Tracking)
- How is the user interacting with the world? (Navigation, orientation, selection, manipulation)
- What senses of the user are all addressed? (visual, auditory and haptic sensors)

The semester will focus on one individual and two group projects. The focus of the first project can be determined by the group with the goal of delivering an interactive prototype in the XR domain. The project lasts six weeks and instructors will coordinate workshops to impart relevant knowledge and skills aligned with the project.

The individual project runs in parallel, with students required to devote one day per week to deepening their knowledge according to personal interests and tasks within the group project. In week seven the individual project is completed.

In week eight, the industry project begins, in which clients from the field are paired with the groups. The project runs for 10 weeks, during which time one day a week can be devoted to continue working on the first group project. An interactive prototype will be delivered in week 17 for both projects.

There is a wide range of equipment available (headsets, input devices, tracking devices). The intention is to make a well-founded choice for the use of certain equipment within projects and to learn to work with it. In addition, much attention is paid to learning to design an appropriate experience for the users of the prototypes.

The assessment takes place through a reading guide and a portfolio with which students provide insight into the knowledge and skills they have acquired.

The minor will be conducted entirely in English.

Summary for diploma supplement

The diploma supplement will include the name and the number of credits of the minor. If a minor is completed with a positive grade, the student will receive a certificate for it. The following summary will be included here:

In this English minor 'XR Design' the student has gained knowledge and skills regarding, 3D programming, 3D modeling, Immersive Virtual Environments, XR devices, User Experience & Interaction Design for Extended Realities. Through capita selecta and project assignments, the student was introduced to state-of-the-art techniques in this field. With a multidisciplinary team, two prototypes were designed and realized in the XR domain, according to a methodology which is used in practice.

## **4. Overview of educational activities of the minor**

The programme guide provides an outline of the [intranet](#).

## **5. Enrolment for educational activities of the minor**

TER 2022-2023 HBO-ICT full-time – four teaching methods

Students shall discuss the minor they intend to follow with the student coach. Students must enrol via Progress Dashboard.

**6. Minor testing and enrolment for testing** (Article 20 and Article 22)

The programme guide outlines the testing and assessment. This document is available on the [intranet](#).

**7. Completion of the minor** (see Article 20, paragraph 2)

Students will be creating professional products, which will be assessed. The programme guide provides an outline of the completion criteria of the professional products and of the overall assessment. The assessment scale is U/ S/ G/ O.

**8. Examination Board**

The ICT & Technology examinations division of the FH ICT Examination Board shall be authorised to consider applications from students with regard to the assessment or testing of the minor. The names of the members of the Examinations Division are available in the Appendix of the TER [Composition of the Examination Board](#).

**9. Validity**

This information shall be valid for the 2022-2023 academic year.

**10. Admission requirements minor**

- Admission to the examination phase of the post-foundation year phase.

**11. Not accessible to:**

Students who do not meet the admission requirements (see paragraph 10).

**No further requirements shall apply to students in relation to participation and completion of the minor other than those stated in these minor regulations.**

**1. Name of minor: Global Acting in ICT**

**2. English name: Global Acting in ICT**

**3. Content of minor**

The objective of the minor 'Global Acting in ICT' is to combine international IT aspects and trends with intercultural aspects. To that end, students visit multiple universities abroad. The focus of the minor is on intercultural and international competencies and global citizenship. This is applied and experienced in an IT-setting with an innovation project in which current trends are studied and applied.

Summary for diploma supplement

The name of the minor and the corresponding number of credits shall be included on the diploma supplement. Global Acting in ICT:

In the minor 'Global Acting in ICT', international IT aspects and intercultural aspects in general are studied and experimentally experienced in an international setting. Collaboration with and visits to various international universities is part of the programme.

**4. Overview of educational activities of the minor**

The minor consists of 6 modules: a start-up module and 5 modules provided by the 5 participating universities and universities of applied sciences. The first modules contain intercultural and internationalisation aspects and training and the planning of an international project. The modules focus on a trend in IT, such as: User Experience Design, Data Science, AI, Cyber Security, IoT. These trends are studied and applied in an innovative project. Students choose to go to 2 or more locations abroad to follow the modules and, in doing so, experience international and intercultural aspects. The other modules are followed remotely from the student's own study programme in a virtual classroom and learning environment. Students may have prior knowledge of one or two of the IT themes in the modules. In such case, the international setting in which the themes are covered provide broader knowledge and experience of the relevant theme.

**5. Enrolment for educational activities of the minor**

Students shall discuss the minor they intend to follow with the student coach. Students must enrol via Progress Dashboard.

**6. Minor testing and enrolment for testing** (Article 20 and Article 22)  
intranet. Every module is assessed by the implementing partner university.

**7. Completion of the minor** (see Article 20, paragraph 2)

Students will be creating professional products, which will be assessed. The programme guide provides an outline of the completion criteria of the professional products and of the overall assessment. The assessment scale is U/ S/ G/ O.

**8. Examination Board**

The Specialisations Examinations Division of the FH ICT Examination Board shall be authorised to consider applications from students with regard to the assessment or testing of the minor. The names of the members of the Examinations Division are available in the Appendix of the TER Composition of the Examination Board.

**9. Validity**

This information shall be valid for the 2022-2023 academic year.

**10. Admission requirements minor**

- Admission to the examination phase of the post-foundation year phase.

**11. Not accessible to:**

Students who do not meet the admission requirements (see paragraph 10).

**No further requirements shall apply to students in relation to participation and completion of the minor other than those stated in these minor regulations.**

## Appendix 3 Advancement standards

The advancement standards are formulated in admission requirements per semester. These admission requirements and the consequences of not meeting the requirements are described below.

In general the requirement applies that a unit of study has been passed when the summative final assessment is assessed with S(atisfactory), G(ood) or O(utstanding). In case the assessment concerns a U(nsatisfactory), the unit of study must be completely followed again (restarted) This leads to 1 semester delay.

The semester's admission requirements are set out in the table below. The following applies:  
S1=semester1, S2=semester2, S3=semester3, S4=semester3, S5=semester5 (internship), S6=semester6, S7=semester7, S8=semester8 (graduation)

Semester	Admission requirement	Note
S2	S1 has been passed	
S3	S2 has been passed	
S4	S3 has been followed	
S5	S3 has been passed and S4 has been followed Or S3 has been followed and S4 has been passed	When applying for internship permission (halfway through a semester), S3 or S4 must have been passed.
S6	S3, S4 and S5 have been passed	
S7	S3, S4 and S5 have been passed	
S8	S6 and S7 have been passed	In order to graduate, all previous units of study have been passed.



## ICT & Software Engineering Short-Track

Students transferring in September will follow the following units of study in their respective semesters:

Semester	Units of study	Total study load
Exemption	First semester: Orientation on ICT	30
Semester 1	Semester 2 ICT & Software Engineering: Basic Software Engineering Academic Preparation Accelerated 1	38
Semester 2	Semester 3 ICT & Software Engineering: Agile development of client-server applications Academic Preparation Accelerated 2	37
Semester 3	ICT & Software Engineering internship Academic Preparation Accelerated 3	38
Semester 5	Minor, being a pre-master at TU/e or Jads	30
Semester 4	ICT & Software Engineering Main Phase: Enterprise Software Engineering Academic Preparation Accelerated 4	37
Semester 6	ICT & Software Engineering graduation project	30

Students transferring in February will follow the following units of study in their respective semesters:

Semester	Units of study	Total study load
Exemption	First semester: Orientation on ICT	30
Semester 1	Semester 2 ICT & Software Engineering: Basic Software Engineering Academic Preparation Accelerated 1	38
Semester 2	Semester 3 ICT & Software Engineering: Agile development of client-server applications Academic Preparation Accelerated 2	37
Semester 3	ICT & Software Engineering internship Academic Preparation Accelerated 3	38
Semester 4	ICT & Software Engineering Main Phase: Enterprise Software Engineering Academic Preparation Accelerated 4	37
Semester 5	Minor, being a pre-master at TU/e or Jads	30
Semester 6	ICT & Software Engineering graduation project	30

Students who have failed an APA1 or APA2 unit of study can continue their studies in the four-year bachelor's programme of ICT & Software Engineering. Other units of study that they have not passed shall have to be followed again or be completed in a tailored programme. Units of study from a four-year programme that have been passed in an accelerated programme shall be retained in the event of a transfer. Once a student has gone through Semester 3 once, units of study that the student has not passed shall have to be followed again or be completed in a tailored programme.

## Appendix 4 Criteria for Professional Development

The method of assessment of these criteria within the units of study is described in the [FHICT programme guide](#).

The student should proactively ask for feedback, possibly at set times, throughout the semester.

Dimension	Explanation	Bachelor-level	Internship level BSc	Propedeutic level
<b>Future-oriented organisation</b>  The organisational context of ICT assignments explore making corporate, sustainable and ethical considerations and managing all aspects of carrying out the assignment.	<ul style="list-style-type: none"> <li>Identifies the hallmarks and roles of the environment of the assignment and knows the business legitimisation.</li> <li>Knows the ethical standards, involves social ethical themes in the judgement process, recognises own boundaries and those of others and acts accordingly</li> <li>Inventories subtasks, plans and monitors time, money, quality and ethics of the execution of the work activities, recognises opportunities and risks and ensures a future-oriented embedding of the solution in the organisation.</li> </ul>	<ul style="list-style-type: none"> <li>You analyse the environment and stakeholders of the assignment.</li> <li>You substantiate the added value of a solution.</li> <li>You are familiar with ethical standards and involve social ethical issues in the judgements.</li> <li>You will independently make an inventory of sub-tasks, plan and monitor time, money, quality and ethics of the execution of the work.</li> <li>You recognise opportunities and risks and ensure future-oriented implementation, commissioning and management.</li> </ul>	<ul style="list-style-type: none"> <li>You analyse the environment and stakeholders of the assignment.</li> <li>You substantiate the added value of a solution.</li> <li>You are familiar with ethical standards and involve social ethical issues in the judgements.</li> <li>You will independently make an inventory of sub-tasks, plan and monitor time, money, quality and ethics of the execution of the work.</li> <li>You recognise opportunities and risks and ensure future-oriented implementation, commissioning and management.</li> </ul>	<ul style="list-style-type: none"> <li>You recognise ethical and social issues.</li> <li>You recognise your own and other people's boundaries and act accordingly.</li> <li>You phase - under supervision - a given assignment in time and sub-tasks in which all team members agree.</li> <li>You make agreements about the expected quality.</li> <li>In the elaboration, you think about the consequences of the solution for the people and organisations involved.</li> </ul>
<b>Investigative problem solving</b>  Critically consider ICT assignments from various perspectives, identify problems, finding an effective approach and coming up with appropriate solutions.	<ul style="list-style-type: none"> <li>Identifying the problem, determining the aim of solution and picking an appropriate approach.</li> <li>Being curious throughout the solving process and asking questions from various perspectives, matching these questions with fitting approach that is pragmatic, critical and based on answering sources.</li> <li>Being able to methodically and creatively solve problems, finding alternatives and critically analysing own and others' line of reasoning.</li> </ul>	<ul style="list-style-type: none"> <li>You identify unstructured practical problems.</li> <li>You work independently towards an evidence-based solution.</li> <li>You ask questions from different perspectives.</li> </ul>	<ul style="list-style-type: none"> <li>You determine the direction of the solution for a given problem and choose an appropriate approach.</li> <li>You solve problems methodically and creatively.</li> <li>You actively look for alternatives.</li> <li>You critically go through your own chain of reasoning.</li> </ul>	<ul style="list-style-type: none"> <li>You remain curious and ask questions throughout the entire solving process.</li> <li>You answer questions with an appropriate approach: pragmatic, critical and resource-based.</li> </ul>

Dimension	Explanation	Bachelor-level	Internship level BSc	Propedeutic level
<b>Personal Leadership</b>  Being entrepreneurial in regard to the ICT assignments and personal development, while being aware of own learning capacity and keeping in mind what ambitions drive ICT professionals and/or which types of positions.	<ul style="list-style-type: none"> <li>• <i>Being aware, seeing opportunities and seizing them, motivating oneself and others, being able to profile oneself, a team and others. Aware of own development, showing leadership and taking responsibility.</i></li> <li>• <i>Making a well-considered choice of study, enhancing ones' own learning capacity, recognising a learning need in oneself and acting accordingly through reflection, evaluation, demanding and giving active feedback.</i></li> <li>• <i>Examining what type of professional one wants to be in the long term, which field and type of positions one aspires to and how one can stand out from others in the branch.</i></li> </ul>	<ul style="list-style-type: none"> <li>• You are actively attentive to possibilities and opportunities.</li> <li>• You motivate not only yourself but also your team.</li> <li>• You consciously look at what else you want to learn.</li> <li>• You reflect on and evaluate your own actions.</li> <li>• You examine what type of professional you are and how you distinguish yourself from others.</li> </ul>	<ul style="list-style-type: none"> <li>• You present yourself professionally.</li> <li>• You're being independent.</li> <li>• You take others with you in your own development.</li> <li>• You actively ask and give feedback.</li> <li>• You strengthen your learning ability.</li> <li>• You describe your professional talents, development ambitions and which professional field you aspire to.</li> </ul>	<ul style="list-style-type: none"> <li>• You see and take chances.</li> <li>• You motivate yourself.</li> <li>• You take responsibility for your actions.</li> <li>• You work on your assignment or task in a result-oriented way.</li> <li>• You make considered choices in your study programme.</li> <li>• You recognise learning needs by yourself.</li> <li>• You are open to feedback and reflect on it.</li> </ul>
<b>Targeted interaction</b>  Determine which partners play a role in the ICT assignment, constructively collaborate and fitting communication aimed at achieving the desired impact.	<ul style="list-style-type: none"> <li>• <i>Attention for the various groups of collaborative partners including the stakeholders, interest groups and own team members.</i></li> <li>• <i>Attention for what one wishes to communicate and the impact one wishes to make, the most appropriate form to achieve this and the actual execution thereof.</i></li> <li>• <i>Attention for own role in the context of the ICT assignment, exploring and tackling the tasks involved, addressing others, searching for enrichment and building up trust in an inter-disciplinary and inter-cultural context.</i></li> </ul>	<ul style="list-style-type: none"> <li>• You anticipate different types of cooperation partners.</li> <li>• You work together in interdisciplinary teams.</li> <li>• You show how to take cultural differences into account.</li> </ul>	<ul style="list-style-type: none"> <li>• You take into account different stakeholders in the assignment.</li> <li>• You ensure the desired impact and execution of communication.</li> <li>• You actively seek enrichment in the assignment.</li> <li>• You consciously build up trust when working together.</li> <li>• You work together in such a way that everyone's strengths and learning needs come into their own.</li> <li>• You consciously take international differences into account.</li> </ul>	<ul style="list-style-type: none"> <li>• You take into account the direct stakeholders in the assignment.</li> <li>• You pay attention to what you want to communicate and in what form.</li> <li>• You take your own role in the group.</li> <li>• You recognise tasks in group work.</li> <li>• You appeal to others on their role.</li> </ul>

The criteria for the bachelor level are the exit qualifications for professional development of the study programme.  
The assessment is satisfactory if all dimensions have been sufficiently assessed.

## **B - Study programme setup and support facilities**

### **1. Setup, organisation and provision of education**

For information and the setup, the organisation and the provision of the education, please see the following sources:

- *the study programme intranet*
- the Teaching and Examination Regulations (see under A).

### **2. Student facilities**

For more information on student facilities, please consult the following sources:

- the institution component of the Fontys Students' Charter
- the website of Fontys, among others, Fontys Helps
- the Fontys Study Abroad website
- *the study programme intranet*
- *Canvas*

### **3. Academic counselling**

For more information on academic counselling, please consult the following sources:

- the Teaching and Examination Regulations (see under A.)
- *the study programme intranet*

## **C - Internal complaints procedure**

Students whose interests are directly affected by acts carried out by a staff member or a student against them, or who have a grievance regarding organisational matters, may lodge a complaint with the Executive Board, as described in Article 47 of the Students' Charter.