Fontys

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Diploma Supplement

*This Diploma Supplement follows the model developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgements, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.*

## 1. Information identifying the holder of the qualification

*1.1 Last name(s)* :
*1.2 First name(s)* :
*1.3 Date of birth* :
*1.4 Student identification number / code* :

## 2. Information identifying the qualification

*2.1 Name of qualification and (if applicable) title conferred (in original language):*
Getuigschrift Hoger Beroepsonderwijs (Degree Certificate of Higher Professional Education);
Degree: Bachelor of Science;
Nationally accepted title: Ingenieur (ing.)

*2.2 Main field(s) of study of the qualification:*
Mens en Techniek (Health Technology), registered in the "Centraal register opleidingen hoger onderwijs" (CROHO)
Central Register of Higher Edu
Main Subject : Orthc

*2.3 Name and sta institution (in original language):*
Fontys Hoges in the scope of the
Higher Educat plements)

*2.4 Name and s institutio age):*
Fontys Hoge public Un in the scope of the
Higher Educa d Research plements)

*2.5 Language of instruction/exan*
Dutch

## 3. Information on the level of the qualification

*3.1 Level of qualification:*
Bachelor's Degree; University of Applied Sciences; First cycle National Qualifications Framework for Higher Education; Level 6 EQF for LLL.

*3.2 Official duration of programme in credits and/or years:*
4 years; study load in ECTS-credits: 240

*3.3 Access requirement(s):*
See
able
Neth

## 4. Information on the programme completed and the results obtained

*4.1 Mode of study:*
Full-time, including work placements and / or research

-2020-11-013503

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**4.2 *Programme learning outcomes:***

The degree programme prepares students for the particular profession in Engineering. The study programme aims to achieve the following competences:

1. Orthopaedic engineering activities
2. Design and manufacture
3. Justification.
4. Communication
5. Collaboration
6. [illegible]
7. [illegible]
8. [illegible]

Th[illegible]'tentamen'. This is a written or oral test in one subject. 'Te[illegible]programme. A cluster of 'tentamens' in one or related sub[illegible]of study).
Th[illegible]esentations, reports and during the traineeship / inte[illegible]requirements of programmes, the report from the traineeship / internship and the graduation project of the main subject must be approved.

**4.3 *Programme details, individual credits gained and grades/marks obtained (if this information is available in an official transcript this should be used here):***

The first year of every programme is referred to as the 'propedeuse', which provides students with introductory courses fundamental to the discipline in question. In addition to lectures, seminars, and independent study, students are required to complete an internship or work placem[illegible]fourth year of study, as well as a final project or a thesis, in the fourth year

**4.4 *Grading system and, if available, grade distributio***

**Grading system in the Netherlands**

Dutch grades range from 1 (very poor) to 10 (outstanc[illegible]s and 10s are rarely given. On final lists, grades are normally rounded off ([illegible]unded down, thus a 5.5 equals a 6 equals a pass, whereas a 5.4 equals a [illegible]it is customary to get a grade that has not been rounded off. The Dutch grading system is listed in the table below.

| Grade | In words NL | Abbr. NL | Meaning EN | Abbr. EN |
|---|---|---|---|---|
| 10 | Uitmuntend | U | Outstanding | O |
| 9 | Zeer Goed | ZG | Very Good | VG |
| 8 | [illegible] | | | |
| 7 | [illegible] | | | |
| 6 | [illegible] | | | |
| 5 | [illegible] | | Satisfactory | |
| 4 | Onvoldoende | O | Unsatisfactory | U |
| 3 | Zeer onvoldoende | ZO | Very Unsatisfactory | VU |
| 2 | Slecht | S | Poor | P |
| 1 | Zeer slecht | ZS | Very Poor | VP |

| Expression NL | Abbr. NL | Meaning EN | Abbr. EN |
|---|---|---|---|
| Behaald | BEH | Pass | PA |
| Niet Behaald | NB | Fail | F |

Grade Distribution Table

| Study programme: **Bachelor Health Technology**, register number 30039<br>Reference group: 3 previous academic [illegible]<br>Fontys School: Fontys School for Allied [illegible] | | | | | |
|---|---|---|---|---|---|
| **Grade:** | **5.5-6.4** | [illegible] | | | |
| % | 36.0% | [illegible] | | | |
| Cum. % | 100.0% | 64.0% | 32.0% | 12.0% | 2.0% |

See: https://www.fontys.nl/GradeDistribution for information on the Grade Distribution at Fontys Hogescholen.

**4.5 *Overall classification of the qualification (in original language):***

met goed gevolg (Successfully)

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## 5. Information on the function of the qualification

**5.1** ***Acc***

The [redacted] s to several types of further study:
Univ[redacted]ctoraat'(the highest degree awarded by Dutch universities);
Shor[redacted]niversity 'getuigschrift'; Post-HBO courses of varying length.

**5.2** ***Prof***

HBO[redacted]sion in theoretical and practical environment without further
study[redacted]ation.

## 6. Additional information

**6.1** ***Additional information:***

The degree programme was accredited by the A[redacted]anders
(Nederlands-Vlaamse Accreditatie Organisatie,

**6.2** ***Further information sources:***

For general information about Fontys: http://ww[redacted]
For information in the English language: http://fo[redacted]
Further information on Higher Professional Educ[redacted]Kortenaerkade
11, P.O. Box 29777, 2502 LT Den Haag, The N[redacted]
There is also an important site on the Recognition of Diplomas: http://ec.europa.eu/education

## 7. Certification of the supplement

**7.1** ***Date*** : [redacted]

**7.2** ***Signature*** : [redacted]

**7.3** ***Capacity*** : [redacted]

**7.4** ***Official stamp or seal*** : [redacted]

## 8. Information on the Dutch higher education system: See enclosed information

[redacted]

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# Diploma Supplement Transcript of Credits (see No. 4.2/4.3.)

DEGREE PROGRAMME: [redacted]ology
**(registered name:** [redacted]

**Last name(s)** : [redacted]
**First name(s)** : [redacted]
**Date of birth (day/month/year)** : [redacted]
**Date of qualification** : **16 November 2020**
**Student identification number** : [redacted]
**Certificate identification number** : [redacted]**-2020-11-013503**

**Sub**[redacted]**in English**
Main Subject : Ortl[redacted]gineering
Minor : Orthopedische Technologie en T[redacted]

## Course components

| Code | Subject name | Subject name in English | Date | Grades | ECTS |
|---|---|---|---|---|---|
| | Cohort 2014 jaar 1 | Cohort 2014 year 1 | | | |
| OP14A | Cluster medisch OP1 | Cluster medical EP1 | 07/11/2014 | 6.3 | 3 |
| OP14A1 | Fysiologie | Physiology | 07/11/2014 | 6.3 | 3 |
| OP14B | Cluster orthopedisch OP1 | Cluster orthopaedic EP1 | 13/11/2014 | 8.4 | 4 |
| OP14B1 | Innoveren | Innovating | 10/11/2014 | 8.5 | 2 |
| OP14B2 | Introductieproject 1 | Introductionproject 1 | 13/11/2014 | 8.2 | 2 |
| OP14C | Cluster technisch OP1 | Cluster technical EP1 | 13/07/2015 | 7.4 | 3 |
| [redacted] | | | | | |
| OP14F4 | Sociale vaardigheden 2 | Social skills 2 | 30/01/2015 | 7 | 1 |
| OP14F5 | Studieloopbaanbegeleiding 1.1 | Study guidance 1.1 | 07/11/2014 | 7 | 0.5 |
| OP14F6 | Studieloopbaanbegeleiding 1.2 | Study guidance | [redacted] | | |
| OP14G | Cluster technisch OP2 | Cluster technical | | | |
| OP14G1 | Biostatica | Biostatics | | | |
| OP14G2 | Mechanica 1 interactive physics | Mechanics 1 in | | | |
| OP14G3 | Mechanica 1 theorie | Mechanics 1 th | | | |
| OP14H | Cluster wetenschappelijk OP2 | Cluster scientific | | | |
| OP14H1 | Vaardigheden onderzoek | Research skills | | | |
| OP14I | Cluster sociaal OP3 | Cluster social EP | | | |
| OP14I1 | FPH-project | FPH-project | | | |
| OP14J | Cluster technisch OP3 | Cluster technical | | | |
| OP14J1 | Biomechanica 1 | Biomechanics | | | |
| OP14J2 | Tekenen / CAD 1 | Drawing / CAD | | | |
| OP14K | Cluster medisch OP4 | Cluster medical E | | | |
| OP14K1 | Analyseopdracht gangbeeldanalyse | Analysis assignment gait analysis | 13/04/2015 | 6 | 0.5 |

[redacted]

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| Code | Subject name | Subject name in English | Date | Grades | ECTS |
|---|---|---|---|---|---|
| OP14K2 | Het gaan volgens Perry | | | | |
| OP14K3 | Gangbeeldanalyse | | | | |
| OP14K4 | Inspanningsfysiologie 1 | | | | |
| OP14K6 | Inspanningsfysiologie practicum | | | | |
| OP14L | Cluster orthopedisch OP4 | | | | |
| OP14L1 | Adviseren | | | | |
| OP14L2 | Orthopedische technologie onderste extremiteiten 1.1 | | | | |
| OP14L3 | Orthopedische technologie onderste extremiteiten 1.2 | | | | |
| OP14L4 | Prakt jk orthopedische technologie 2 | | | | |
| OP14L5 | Stage 1 | | | | |
| OP14L6 | Project dag | | | | |
| OP14M | Cluster sociaal OP4 | | | | |
| OP14M5 | Studieloopbaanbegeleiding 2.2 | | | | |
| OP14M1 | Methodisch handelen opdracht | | | | |
| | | | 019 | 6.7 | 4 |
| | ledematen OL | | | | |
| OTHO14A2 | Functionele anatomie onderste ledematen OL | Functional anatomy LL | 28/01/2019 | 6.7 | 2 |
| OTHO14B | Prakt jk uitvoeringstechnieken 1.1 | Practical construction techniques 1.1 | 05/04/2018 | 6.1 | 4 |
| OTHO14B1 | Uitvoeringstechnieken algemene orthopedie 1.1 | Construction techniques general orthopedics 1.1 | 05/04/2018 | 6.1 | 4 |
| OTHO14C | Prakt jk uitvoeringstechnieken 1.2 | Practical construction techniques 1.2 | 05/04/2018 | 6.6 | 4 |
| OTHO14C1 | Uitvoeringstechnieken algemene orthopedie 1.2 | Construction techniques general orthopedics 1.2 | 05/04/2018 | 6.6 | 4 |
| OTHO14D | Anatomie en pathologie werve kolom | Anatomy and pathology spine | 20/09/2016 | 6.1 | 4 |
| OTHO14D1 | Bewegingsapparaat wervelkolom | Locomotor system spine | 05/04/2016 | 6.1 | 1.5 |
| OTHO14I | Anatomie bovenste ledematen | Anatomy upper limb | 25/04/2019 | 6.9 | 4 |
| OTHO14I1 | Bewegingsapparaat bovenste ledematen | Locomotor system upper limb | 25/04/2019 | 6.9 | 3 |
| OTHO14I2 | Functionele anatomie bovenste ledematen | Funct | | | |
| OTHO14J | Pathologie bovenste ledematen ledematen | Patholo | | | |
| OTHO14J1 | Pathologie & revalidatie bovenste ledematen | Patho | | | |
| OTHO14K | Orthopedische technologie bovenste ledematen | Orthope | | | |
| OTHO14K1 | Orthesen bovenste ledematen theorie | Ortho | | | |
| OTHO14K2 | Prothesen bovenste ledematen | Prostheses upper limb | 01/07/2016 | 6.6 | 2 |

| Code | Subject name | Subject name in English | Date | Grades | ECTS |
|---|---|---|---|---|---|
| OTHO14L | Prakt jk orthopedische technologie 2.1 | Practical orthopedic technology 2.1 | 01/07/2016 | 7.4 | 8 |
| OTHO14L1 | Uitvoeringstechnieken orthopedische technologie 2.1 | Construction techniques orthopedic technology 2.1 | 01/07/2016 | 7.4 | 7 |
| OTHO14L2 | Digitale maatname | Digital measurement | 01/07/2016 | 7 | 1 |
| 01O143D1 | Onderzoeksmethoden OT | Research methods OT | 22/01/2018 | 7.4 | 4 |
| 01O143D2 | Stage 2 OT | Clinical affiliation | 01/09/2017 | 8.0 | 11 |
| 01O143F | Orthopedische Technologie en Technologie | Orthopaedic technology and Technology | 24/06/2019 | PA | 30 |
| 01O143F1 | Capita Selecta OT | Capita Selecta OT | 12/05/2017 | 7.2 | 15 |
| 01O | TEK (Therapeutisch elastische | utic stockings) | 12/05/2017 | 6.5 | 3 |
| 01O | in combination with | | 12/05/2017 | 8.2 | 3 |
| 01O | psychology | | 02/05/2017 | 7.6 | 3 |
| 01O | | | 12/05/2017 | 7.8 | 3 |
| 01O | evelopment | | 12/05/2017 | 5.8 | 3 |
| 01O | e Technology | | 24/06/2019 | 7.6 | 15 |
| 01O | ttitude | | 24/05/2017 | 8.0 | 12.6 |
| 01O143F2B | Kennistoets | Knowledge test | 24/06/2019 | 8.0 | 37.8 |
| 01O143F2C | Beroepsproduct | Advisory report | 29/06/2017 | 6.0 | 12.6 |
| | Afstudeerfase jaar 4 | Graduation phase year 4 | | | |
| OTHO144B | Afstudeerstage OT | Graduation internship OT | 24/08/2020 | 8.6 | 30 |
| OTHO144B1 | Functioneren in de praktijk | Performance at clinical facility | 22/08/2020 | 9.0 | 21 |

# Diploma Supplement Appendix Competences

DEGREE PROGRAMME: [redacted]echnology
**(registration number and name: [redacted]lens en Techniek")**
**Valid for qualificatio[redacted]er 2020**

| Competenties Nederlands | Competence requirements |
|---|---|
| **1. Orthopedisch te**<br>De start bekwame[redacted]<br>om zelfstandig en[redacted]<br>onderzoek uit te v[redacted]<br>en relevante stapp[redacted]<br>functieonderzoek[redacted]<br>erom rekening te[redacted]<br>eigenschappen, ac[redacted]<br>cliënt. | **[redacted]ivities**<br>[redacted]neer is capable of<br>[redacted]ethodical and client-<br>[redacted] using logical and<br>[redacted]ng, to functional<br>[redacted]are plan. This requires<br>[redacted]ical properties,<br>[redacted]e patient. |
| **2. Ontwerpen en v**<br>"De startbekwame[redacted]<br>staat een orthope[redacted]<br>en kan hierbij sam[redacted]<br>disciplines. Het te[redacted]<br>voorziening, een p[redacted]<br>meer omvatten da[redacted]<br>Hierbij heeft de O[redacted]<br>zijn ontwerp op d[redacted]<br>omgeving, gezond[redacted]<br>[redacted]<br>[redacted]<br>alle opgestelde eisen.<br>Het vervaardigen en opleveren van een orthopedische voorziening of de implementatie van een proces dat aan de gestelde eisen voldoet. De OTer ontwikkelt hiervoor praktische vaardigheden, kennis van het gebruik en de beperkingen van materialen, inventieve ontwerp/productiemet[redacted] CADCAM). De OTer is ook in staat[redacted] technische) gevolgen te overzien[redacted] werkzaamheden, bijv. op het geb[redacted] maatschappelijke omgeving en d[redacted] | [redacted]ineer is capable of<br>[redacted]n and is capable of<br>[redacted]er disciplines to do so<br>[redacted]e for a solution,<br>[redacted]compass more than<br>[redacted]orthopaedic engineer<br>[redacted]sign on the client, the<br>[redacted]ty, the environment,<br>[redacted]onsiderations. The<br>[redacted]wledge, specific<br>[redacted]d design methods in realizing<br>[redacted]le of applying them. The<br>[redacted]s based on the schedule of<br>[redacted]e client, specific<br>[redacted]d design methods) and is a full<br>[redacted]ation of all defined<br>[redacted] delivery of an orthopaedic solution or the implementation of a process that meets the defined requirements. The orthopaedic engineer develops practical skills, familiarity with the use and limitations of materials, inventive design/manufacturing methods (such as CAD/CAM). [redacted]he |
| **3. Legitimeren**<br>De start bekwame orthopedisch t[redacted]<br>alle partijen (cliënt, multidisciplin[redacted]<br>verantwoorden waarom hij doet [redacted]<br>houdt rekening met het referenti[redacted]<br>aan wie de verantwoording gege[redacted] | [redacted]all<br>[redacted]why<br>[redacted]his |

[redacted]

**4. Communiceren**
De start bekwame or
feiten, ideeën of mer
maken, gebruikmake
gebaren en non-verb
hij het onderwerp afs
Daarnaast kan hij op
manier communicere
worden gemaakt of k
genomen.

**5. Samenwerken**
De start bekwame orthopedisch technoloog is in staat om naast zijn inhoudelijke capaciteiten samen te werken. Dat wil zeggen: bijdragen aan een gezamenlijk resultaat door een optimale afstemming tussen de eigen kwaliteiten en belangen en die van een groep of een collega. Een
samenwerken in een multidisci
team. Dus met verschillende di
vakgebieden waarbij ieder zijn
inbrengt komen tot een gezam

**6. Ondernemerschap**
De start bekwame orthopedisc
zich in voor een kwalitatief go
orthopedisch technoloog neem
betrekking tot het gebruik of
en medewerkers, het stellen va
prioriteiten en het maken van
zijn eigen werk waarbij hij bal
beroepsmatig handelen en de
ontwikkeling van zichzelf en de zorgorganisatie waarin hij werkt. Hierin is hij ook in staat om mee te denken over de financiële bedrijfsvoering, en kan hij zelfstandig declareren en c
betrokken partijen en/of cl
krachtenveld van externe partners, zorgverlener en cliënt. Daarnaast heeft hij een ondernemende houding om zaken binnen het bedrijf te verbeteren
en

**8.**
De
bl
O
ee
va
het zelf willen doen van onderzoek. De Vereniging Hogescholen (2014) specificeert onderzoek voor het hbo-onderwijs als het methodisch beantwoorden van

**5. Collaboration**
The qualified orthopaedic engineer is capable of collaborating, in addition to using his specific professional skills. This means: contributing to a shared result through optimal coordination of personal qualities and interests and those of a group
ration in
with a
wn

create a
ngineer
ment of
ies, and
rk to
ity and
nt and
ks in. He
is also capable of contributing to financial operations, is capable of independently billing and maintaining contacts with health insurance companies, insurers

ity

f
Additionally, he has an entrepreneurial attitude and aims to improve the company and build a network.

lays research
with: an
knowledge
the drive to
Association of
universities of applied sciences (Vereniging Hogescholen) (2014) defines research for universities of applied sciences as methodically answering
s 'leading to relevant knowledge'. This
is always related to the manufacture of a
nal product, such as an advisory report, a
report, a product design or a physical end-
Research at universities of applied sciences
working methodically on such professional
.

# The education system of the Netherlands

The Dutch education system consists of eight years of primary education, a diversified secondary education system with different tracks and a binary higher education system.

## Primary and secondary education

Children are allowed to begin school at the age of four, but are not legally required to do so until the age of five. Secondary education, which begins at the age of twelve and is compulsory until the age of sixteen, is diversified and offered at different levels. *Vmbo* programmes (four years) combine general and vocational education. Only the six-year *vwo* diploma grants access to bachelor's programmes at research universities; the *vwo* diploma, *havo* diploma and the highest level of *mbo* grant access to bachelor's programmes at universities of applied sciences (*hogescholen*).

The last two years of *havo* and the last three years of *vwo* are referred to as the 'second phase' (*tweede fase*), or upper secondary education. During these years, pupils focus on one of four subject clusters (*profielen*): 1) Science and Technology (*Natuur en Techniek*); 2) Science and Health (*Natuur en Gezondheid*); 3) Economics and Society (*Economie en Maatschappij*); 4) Culture and Society (*Cultuur en Maatschappij*).

## Higher education

Higher education in the Netherlands is offered at research universities and universities of applied sciences. In this binary, three-cycle system, bachelor's, master's and PhD degrees are awarded. Short cycle higher education leading to the associate's degree is offered by universities of applied sciences (part of the first cycle). Universities of applied sciences are increasingly offering three-year bachelor programmes for students with a *vwo* diploma.

Workload is measured in ECTS credits. According to Dutch law, one credit represents 28 hours of work. The grading system used in the Netherlands is on a scale from 1 (very poor) to 10 (outstanding). The lowest passing grade is 5.5 or 6; 5; 9s are seldom given and 10s are extremely rare. For certain subjects the assessment pass/fail is used. The academic year is 42 weeks long.

The third cycle of higher education, leading to a PhD, is offered only by research universities, while the three engineering universities offer technological designer programmes leading to an Engineering Doctorate (EngD). A Professional Doctorate offered by *hogescholen* is currently being developed.

## Quality assurance and accreditation

Quality assurance is carried out through a system of accreditation, administered by the Accreditation Organisation of the Netherlands and Flanders (NVAO). Higher education programmes are accredited for a period of six years and eligible for government funding. All accredited programmes are listed in the Central Register of Higher Education Study Programmes (CROHO).

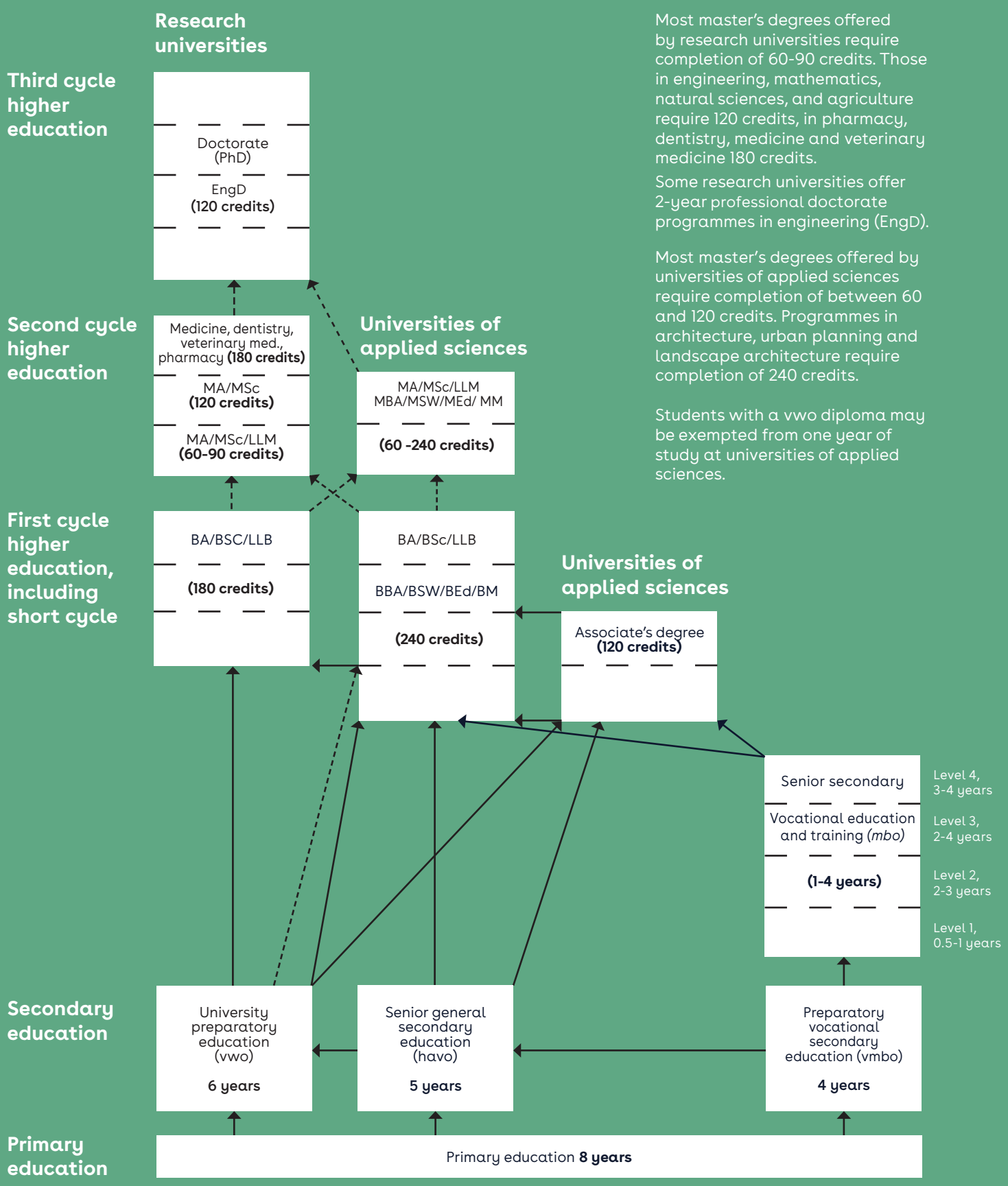
## National Qualifications Frameworks

The qualifications framework in the Netherlands is referred to as the Dutch Qualifications Framework (NLQF) and was officially referenced to the EQF in 2012. Further information on the Dutch Qualifications Framework can be found on the website of the National Coordination Point NLQF.

Update June 2023

# The Dutch education system

The higher education system in the Netherlands is based on a three-cycle degree system, consisting of a bachelor, master and PhD. Two types of programmes are offered: research-oriented degree programmes offered by research universities, and professional higher education programmes (including associate degrees) offered by universities of applied sciences.




Most master's degrees offered by research universities require completion of 60-90 credits. Those in engineering, mathematics, natural sciences, and agriculture require 120 credits, in pharmacy, dentistry, medicine and veterinary medicine 180 credits.

Some research universities offer 2-year professional doctorate programmes in engineering (EngD).

Most master's degrees offered by universities of applied sciences require completion of between 60 and 120 credits. Programmes in architecture, urban planning and landscape architecture require completion of 240 credits.

Students with a vwo diploma may be exempted from one year of study at universities of applied sciences.

A solid arrow ( ⟶ ) indicates a right to access.
A dotted arrow ( - - - → ) indicates that some form of selection or bridging requirement may be applied.