



Getuigschrift

Hoger Beroepsonderwijs

Op grond van artikel 7.10a lid 2 van de Wet op het hoger onderwijs en

In accordance with Article 7.10a Section 2 of the Higher Education and Scientific Research Act (Bulletin of

wetenschappelijk onderzoek (Stb. 1992, 593) verklaart de examencommissie van de

Acts, Orders and Decrees 1992, 593), the Examination Board of the Bachelor's Degree Programme in Information

bachelor opleiding HBO-ICT van de Christelijke Hogeschool Windesheim dat

& Communication Technology of Windesheim University of Applied Sciences declares that



A4068366

Ronald van Bostelen

geboren / born on 18 december / December 1989 te / in De Lier

het afsluitend examen van de bachelor opleiding

successfully completed the final examination of the Bachelor's Degree Programme in

HBO-ICT

Information & Communication Technology

met als afstudeerrichting / with as main subject

Software Engineering

Software Engineering

met goed gevolg heeft afgelegd op 25 juni 2021 / on 25 June 2021

Op grond daarvan heeft het College van Bestuur de graad Bachelor of Science verleend en

Consequently, the Executive Board has awarded the degree of Bachelor (B Sc), which also

bestaat tevens het recht tot het voeren van de titel ingenieur (ing.).

entitles holder to make use of the title of Ingenieur (ing.).

Voorzitter examencommissie
Chair of the Examination Board

drs. M.J.J. Knots

College van Bestuur, namens deze Geëxamineerde
On behalf of the Executive Board Examinee

E.L. van der Veer MSc

R. van Bostelen

Overzicht van de onderdelen van het afsluitend getuigschrift

Document ID A4068366
Opleiding HBO-ICT
Naam Ronald van Bostelen
Geboortedatum 18 december 1989 te De Lier

De studielast van de opleiding is 240 studiepunten, waarvan 60 in de propedeutische fase. De studielast van de postpropedeutische fase van de opleiding is 180 studiepunten hetgeen overeenkomt met 5040 studie-uren.

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Major-hoofdphase: Major hoofdphase HBO-ICT



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Examenonderdeel	Beoordeling	Studiepunten
Afstudeeropdracht Software Engineering	9	30
Algoritmen & Datastructuren	7	5
Bedrijfsethiek voor ICT	8	3
Client Technology	Voldaan	4
Discrete Wiskunde	8	4
Engels 2 deeltijd	7	3
Gesprekken in organisaties	9	3
Interculturele Communicatie voor ICT	10	3
Kenmerkende beroepssituatie 1 Software Engineering 1	8	3
Kenmerkende beroepssituatie 2 Software Engineering 1	8	12
Mobile Solutions	7	24
Onderzoek en Rapportage HBO-ICT 2016 DT	Vrijstelling	3
Ontwerpen met Unified Modelling Language	8	3
Prince2 Projectmanagement	8	3
Programmeren in C-sharp	10	6
Project Quality in Software Development	8	12
Security for web applications	10	4
Server technology	9	4
Sociale en Communicatieve vaardigheden 1	Vrijstelling	3
Behaald:		132

Zwolle, 25 juni 2021

Voorzitter examencommissie

M.J.J. Knots



Overzicht van de onderdelen van het afsluitend getuigschrift

Document ID A4068366
Opleiding HBO-ICT
Naam Ronald van Bostelen
Geboortedatum 18 december 1989 te De Lier

Pagina 2 van 2

Major-hoofdphase: Major hoofdphase HBO-ICT

Examenonderdeel	Beoordeling	Studiepunten
Sociale en Communicatieve vaardigheden 1	Vrijstelling	3
Software Design Patterns	8	3
Web Development Project	8	12
Behaald:		18



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Persoonlijke profilering HBO-ICT

Examenonderdeel	Beoordeling	Studiepunten
Extern gevolgd onderwijs, zie supplement	Voldaan	30
Behaald:		30
Totaal studiepunten behaald:		180

Zwolle, 25 juni 2021

Voorzitter examencommissie

M.J.J. Knots



Europass diploma

1. Information identifying the holder of the qualification

- 1.1 Last name(s) Bostelen, van
1.2 First name(s) Ronald
1.3 Date of birth (dd/mm/yyyy) 18/12/1989
1.4 Student identification number S1019885

2. Information identifying the qualification

- 2.1 Name of qualification and (if applicable) title conferred
Bachelor of Science
- 2.2 Main field(s) of study for the qualification
Information & Communication Technology with main subject Software Engineering
- 2.3 Name (in original language) and status of awarding institution
Christelijke Hogeschool Windesheim, accredited
- 2.4 Name and status of institution (if different from 2.3) administering studies
Windesheim University of Applied Sciences, accredited
- 2.5 Language(s) of instruction/examination
Dutch and English

3. Information on the level of the qualification

- 3.1 Level of qualification
Bachelor (Bachelor of Science)
- 3.2 Official length of programme duration
Four years, 240 EC's (1 EC equals 28 study hours)
- 3.3 Access requirement(s)
Access to this bachelor is in accordance with article 7.24 Dutch Higher Education Act (WHW) up to and including article 7.30 Dutch Higher Education Act (WHW)

4. Information on the contents and results gained

- 4.1 Mode of study
Part time
- 4.2 Programme requirements
Programme requirements as described in the Course and Examination Regulations (OER)



4.3a Programme competences / Programme units of learning outcome

Analyse

Analysis of the relationships between processes, products and data flows within the context of the environment, and drawing up functional specifications.

Advise

Formulation of substantiated advice for the reorganisation of processes and / or data flows and for a new ICT system to be developed or purchased on the basis of an analysis and consultation with stakeholders. Aspects such as financing, time, organisation (change), feasibility and risks as well as possibilities for outsourcing are taken into account here.

Design

Design of an ICT system on the basis of specifications, in connection with an analysis and within the set frameworks for quality, testing, security, lead-time, budget, exploitation and management.

Implement

Build an ICT system on the basis of a functional and technical design and within the set frameworks for quality, testing, security, lead-time, budget, exploitation and management.

Manage

Design the utilisation and management of ICT systems, taking care of introduction, testing, integration and commissioning of a new (release of an) ICT system. Provision of services that are agreed (in a Service Level Agreement) within set frameworks for quality and financing. Together with the design and implementation, provide maintenance of ICT systems.

4.3b Programme details

Programme details (e.g. modules or units studied), and the individual grades/marks/credits obtained

Propedeutic phase - Study units	Date	Credits	Grade
Analysis and Functional Design	16 Jan 2018	3	9
Business Administration	18 Jan 2018	3	9
Database Design	07 Nov 2017	3	8
English 1	03 Apr 2018	3	8
Introduction to Security	09 Nov 2017	3	10
Project 1	25 Jun 2018	9	Pass
Characteristic professional context 2: research	05 Jun 2018	3	7
Characteristic professional context 2: design	05 Jun 2018	3	8
Characteristic professional context 2: realisation	05 Jun 2018	3	8
Dutch language	17 Apr 2018	3	8
Object oriented programming in JAVA	29 Mar 2018	6	8
Process modeling	27 Mar 2018	3	10
Professional Development 1	16 Jan 2018	3	Pass
Professional Development 2	29 May 2018	3	Pass
Service management	07 Jun 2018	3	8
Structured Query Language	02 Nov 2017	3	9
Web Programming	31 Oct 2017	3	9
Main phase - Study units	Date	Credits	Grade
Graduation assignment Software Engineering	18 Jun 2021	30	9
Algorithms & Datastructures	12 May 2020	5	7
Business Ethics for ICT	14 Jan 2020	3	8
Client Technology	06 Jun 2019	4	Pass
Discrete Mathematics	02 Jun 2020	4	8
English 2 Part time	15 Jan 2019	3	7
Verbal communication in organisations	01 Jul 2019	3	9
Intercultural Communication for ICT	07 Nov 2019	3	10
Project1 Software Engineering 1	18 Jan 2019	3	8
Project 2 Software Engineering 1	26 Mar 2019	12	8
Mobile Solutions	12 Jan 2021	24	7
Research and Reporting HBO-ICT	19 Sep 2018	3	Exemption
Design with Unified Modelling Language	30 Oct 2018	3	8

Main phase - Study units	Date	Credits	Grade
Prince2 Projectmanagement	26 Mar 2019	3	8
Program in C-sharp	30 Oct 2018	6	10
Project Quality in Software Development	08 Jun 2020	12	8
Security for web applications	01 Nov 2019	4	10
Server technology	04 Jun 2019	4	9
Social and Communication Skills 1	27 Jan 2021	3	Exemption
Social and Communication Skills 1	27 Jan 2021	3	Exemption
Software Design Patterns	21 Aug 2020	3	8
Web Development Project	14 Jan 2020	12	8
	Date	Credits	Grade
External education, for specification see annex to Europass Diploma	02 Mar 2020	30	Pass
Total number of ects credits:		240	



4.4 Grading scheme and, if available, grade distribution guidance

The Dutch grading system, used from primary through to university education, is the 1 to 10 scale given in the following table, in which 10 is the highest grade, 6 the minimum pass, and 1 the lowest grade.

Official Dutch grading scheme	Additional Windesheim grading scheme		Additional Windesheim grading scheme	
10 (Excellent)	Uitmuntend	(Excellent)	Voldaan	(Pass)
9 (Very good)	Zeer goed	(Very good)	Vrijstelling	(Exemption)
8 (Good)	Goed	(Good)		
7 (Satisfactory)	Ruim voldoende	(Satisfactory)		
6 (Sufficient)	Voldoende	(Sufficient)		
5-1 (Fail)				

4.5 Grading Scale

The ECTS Grade Distribution Table is an integral part of the ECT System. An ECTS Grade Distribution Table gives the statistical distribution of all positive numerical grades (pass and above / $N \geq 500$) awarded to students of a specific field of study over a specified period. The purpose of the Grade Distribution Table is to provide insight into the grading culture of a degree programme.

Degree Programme:	Information & Communication Technology
ISCED-F level	0613 Software and applications development and analysis Bachelor
part off	061 Information and Communication Technologies

Grades used (from lowest to highest passing grade)	Number of passing grades awarded to the reference group	Percentage of each grade with respect to the total passing grades awarded	Cumulative percentage of passing grades awarded
6	19955	28.82%	28.82%
7	23100	33.36%	62.18%
8	17963	25.94%	88.12%
9	6441	9.3%	97.42%
10	1788	2.58%	100%
	69247	100%	

Reference Group: Academic Years: 2016 to 2019

Please note that if the percentages in a table do not add up to exactly 100.0 %, this is due to minor rounding differences.

Non-numeric grades like exemption (vrijstelling) and pass (voldaan) not included. Other non-numeric grades registered: 0.55% of the total.

4.6 Overall classification of the qualification

Pass

An Associate, Bachelor or Master Degree is awarded a 'pass' either when the grade point average is between 6 and 10 or sufficient or pass; based upon the official Dutch grading scheme.

Cum laude

An Associate, Bachelor or Master Degree is awarded a 'cum laude' when the overall final grade point average is at least 8 (not rounded up) and whereby a minimum grade point average of 6 (sufficient) or higher has been obtained for each examination; all based upon the official Dutch grading scheme and all attained at first attempt.



5. Information on the function of the qualification

5.1 Access to further study

This bachelor's Degree entitles access to the second cycle higher education (annex "The Dutch education system")

5.2 Professional status

Qualified for a profession related to the field of study

6. Additional Information

6.1 Additional information

Not applicable

6.2 Further information sources

Christelijke Hogeschool Windesheim
P.O. Box 10090
8000 GB Zwolle
The Netherlands

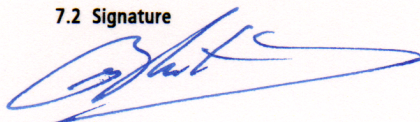
<https://www.windesheim.nl>

7. Certification of the supplement

7.1 Date

25-06-2021

7.2 Signature



7.3 Capacity

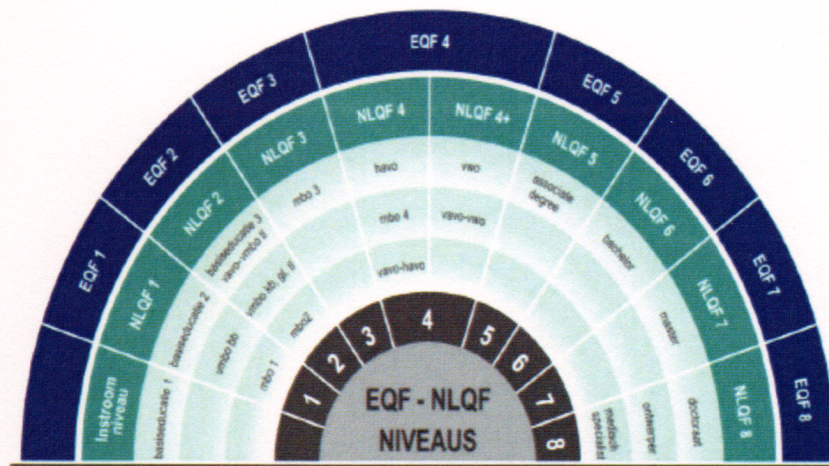
(Chair of the) Examination Board

7.4 Official stamp or seal

8. Information on the national higher education system

■ National qualifications framework

The Dutch Qualifications Framework (NLQF) comprises 8 qualification levels and 1 [entry level](#).



Source: National Coordination Point [NLQF](#) (NCP NLQF).

The table below features the various Dutch diplomas on the left and the equivalent levels within the European and Dutch qualifications frameworks on the right.

Dutch qualifications	EQF level	NLQF level
Doctor	8	8
Master	7	7
Bachelor	6	6
Associate degree	5	5
VWO	4	4+
MBO 4 or HAVO	4	4
MBO 3	3	3
VMBO-kb , VMBO-gl , VMBO-fl or MBO 2	2	2
VMBO-lb or MBO 1	1	1



8. Information on the national higher education system

Higher education

Dutch higher education is based around a binary system that distinguishes between research-oriented higher education (wetenschappelijk onderwijs) and higher professional education (hoger beroepsonderwijs). This distinction remained in place after the introduction of the bachelor's-master's degree structure in 2002.

Research universities mainly provide academic or research-oriented higher education, while universities of applied sciences mainly offer higher professional education. These 2 types of education each have their own admission requirements, duration and official titles.

There are 3 types of universities of applied sciences and research universities in the Netherlands:

1. government-funded higher education institutions
2. approved institutions
3. private institutions

1. Government-funded institutions (13 research universities, the Open University and 36 universities of applied sciences) are financed by the Ministry of Education, Culture and Science, and are entitled to issue legally recognised degrees. These institutions offer study programmes for the statutory tuition fee.
2. Approved institutions, such as Nyenrode Business Universiteit, do not receive funding from the Dutch government but may also issue legally recognised bachelor's and master's degrees. These institutions are not bound by statutory tuition fees, and are free to determine their own tuition fees.
3. Private institutions, such as international universities, are not bound by Dutch government regulations. However, these institutions may apply for accreditation by the Accreditation Organisation of the Netherlands and Flanders (NVAO), subject to specific conditions.

Universities

Research-oriented higher education is provided at 14 Dutch research universities in the Netherlands, including the Open University, although these institutions also collaborate with universities of applied sciences.

Most research universities offer study programmes in various areas of specialisation, such as economics, law, medicine, language & culture, and natural sciences and management. One research university specialises in agriculture and the environment, while 3 universities offer largely technological programmes. University colleges also provide research-oriented higher education and are generally part of a research university. These colleges offer English-language education and are mainly focused on undergraduate liberal arts programmes.

Universities of applied sciences

Higher professional education (HBO) is mainly provided by universities of applied sciences. HBO consists of 7 sectors:

- economics
- healthcare
- agriculture
- education
- social and community work
- art
- technology

Students can enrol in various study programmes in each of these sectors at universities of applied sciences throughout the Netherlands. Some universities of applied sciences specialise in a particular domain, such as arts, agriculture or teacher training.

Finally, the Netherlands has various Institutes for International Education (IE institutes) with a relatively small student population. Most of these IE institutes are part of a Dutch university. They offer a broad range of study programmes in specific fields of study, and generally lead to a master's degree or PhD. Further information can be found on the Platform for International Education website.

8. Information on the national higher education system

