

## **ASSESSMENT REPORT**

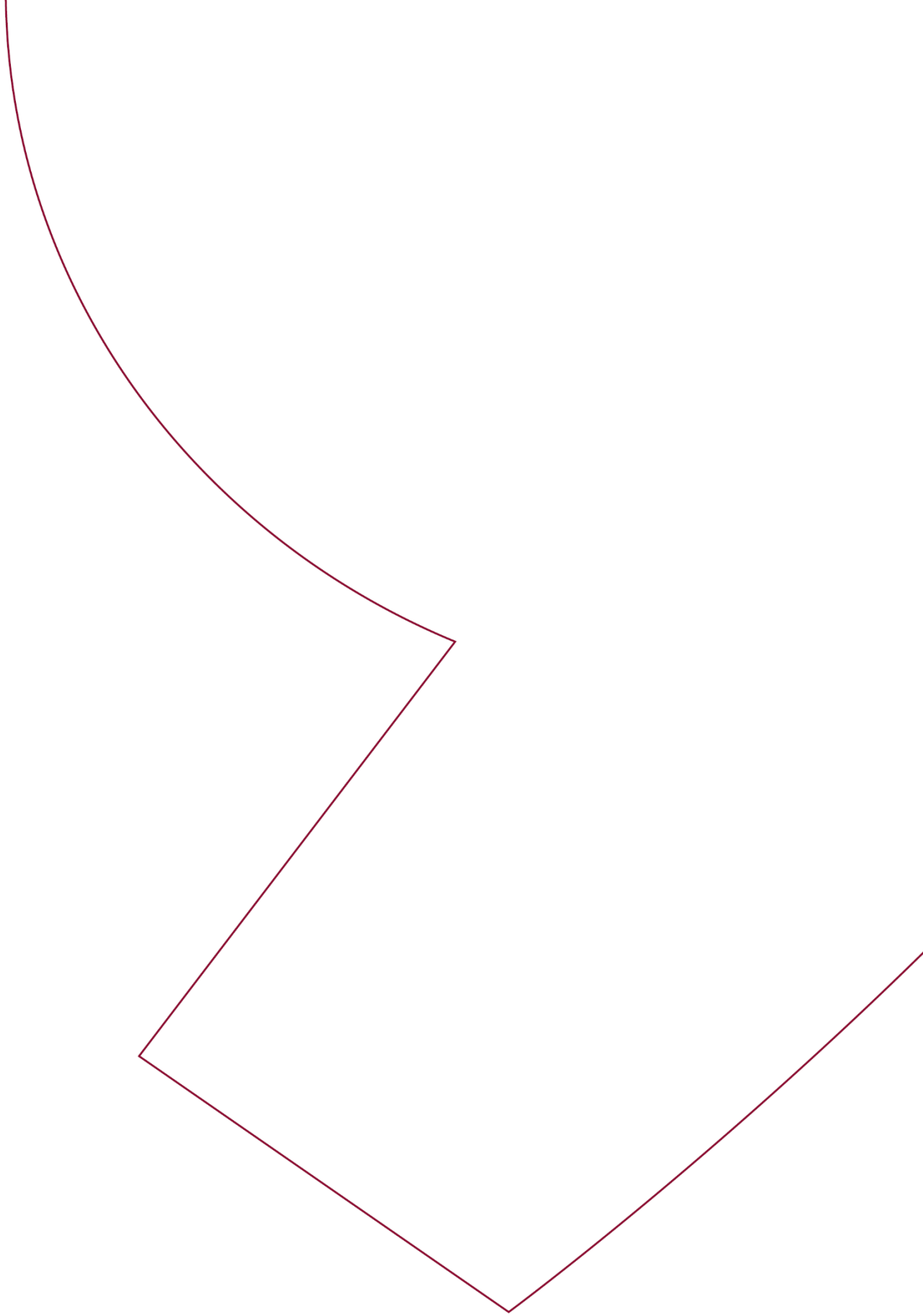
Extensive Program Assessment

**Bachelor Informatica**

Bachelor Information Technology

Full time

**Inholland University of Applied Sciences**



# ASSESSMENT REPORT

Extensive Program Assessment

**Bachelor of Informatica**

Bachelor Information Technology

Full time

**Inholland University of Applied Sciences**

Croho registration: 34479

Hobéon Certificering & Accreditatie

**DATE**

September 12, 2024

**Audit Panel**

J. van Erp (chair)

T. Dijkhuis

J. Derwort

J. Maas (student)

**Secretary**

P. Shapiro

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## 1. GENERAL INFORMATION

Institution	Inholland University of Applied Sciences
Status	Funded
Outcome of Institutional Quality Assessment	Not applicable
Name of program in the Central Register of Higher Education (CROHO)	B Informatica
English name of program	B Information Technology
ISAT-code CROHO	34479
Domain / Sector CROHO	Techniek
Orientation and level	HBO bachelor
Degree	BSc
Number of credits	240
Specializations	Mobile Development
Location	Haarlem
Variant	Full time
Joint Program	Not applicable
Languages	Dutch & English
Date of site visit	April 10, 2024

## 2. EXECUTIVE SUMMARY

### 2.1 Introduction and Program Profile

The Bachelor of Information Technology (B IT) is a full-time four-year program offered by the Faculty of Engineering, Design and Computing (Dutch acronym, TOI) at Inholland University of Applied Sciences (Inholland UAS) in Haarlem. The program offers both a Dutch and English track for the first two years, while the last two years are taught only in English, reflecting industry practice and allowing for cooperation between the two tracks.

The program is focused on equipping future IT professionals with the skills they need to work on socially relevant technical challenges. The curriculum of the program generally utilizes project-based learning methodologies that center a practice oriented didactic approach. The profile and educational environment of B IT at Inholland UAS give graduates the tools they need to succeed in the multinational technical workforce.

### 2.2 Findings

The Bachelor of Information Technology **meets the requirements of standard one** for intended learning outcomes by preparing graduates to be independently minded IT professionals capable of software development, cloud engineering, data & AI engineering, and cybersecurity management. Utilizing the national HBO-i professional profile developed by Dutch universities, the program emphasizes both technical and soft skills, such as project management and agile methodologies, which industry representatives find beneficial for practical project implementation.

The program's curriculum design and implementation **adhere to standards two through five**, demonstrating a strong connection to industry developments and a structured progression from foundational skills to independent, project-centered learning. This alignment ensures student success and considers the needs of incoming students.

The teaching-learning environment of B IT **meets standards six through eight**, providing a supportive and interactive space in Haarlem, where the teaching team is highly engaged, and student support systems are effectively reducing first-year dropout rates.

Quality assurance processes, **fulfilling standard nine**, show a development-oriented approach consistent with Inholland UAS's practices, involving all stakeholders and proactive engagement from the program committee.

For **standard ten**, the program's assessment framework supports its project-centered teaching method, allowing flexible and appropriate assessment methodologies. The exam board effectively oversees the appointment of examiners, with an assessment committee ensuring testing quality.

Finally, the program **meets standard eleven** by demonstrating that graduates achieve the intended learning outcomes. The panel's review of final projects indicates that graduates fulfill bachelor-level expectations, with industry feedback confirming general satisfaction with graduate quality.

### 2.3 Commendations

The panel commends the program, TOI, and Inholland UAS on the following points in particular:

1. The inclusion of ethical and critical thinking skills throughout the curriculum and the integration of these aspects with the primary technical skills that the program teaches.
2. The use of evidence-based theories in student support to increase student retention.
3. The engagement of the teaching team.
4. The proactive attitude of the program committee and the open quality culture at the program.

## **2.4 Recommendations**

The panel has two recommendations for the program:

1. The panel would like to see more consistency in the formative feedback given to students in assessments.
2. The panel recommends that the role of the external examiner be clarified regarding their ability to give a no-go to students working on their graduation project.
3. The panel suggests that the program consider ways that it could modernize the graduation project by focusing more on professional products.

## **2.5 Conclusion**

The panel advises that the NVAO re-accredit the program on the basis of the extensive accreditation framework (2018).

In agreement with the panel members, the chair adopted this report on September 12, 2024.

### 3. FINDINGS

#### 3.1 Intended Learning Outcomes

**Standard 1: The intended learning outcomes tie in with the level and orientation of the program; they are geared to the expectations of the professional field, the discipline, and international requirements.**

*Explanation NVAO: The intended learning outcomes demonstrably describe the level of the program (Associate Degree, Bachelor's, or Master's) as defined in the Dutch Qualifications Framework, as well as its orientation (professional or academic). In addition, they tie in with the regional, national or international perspective of the requirements currently set by the professional field and the discipline with regard to the contents of the program. Insofar as is applicable, the intended learning outcomes are in accordance with relevant legislation and regulations. The points of departure for the set-up of the program chime with the educational philosophy and the profile of the institution. The intended learning outcomes are periodically evaluated.*

The panel finds that the Bachelor of Information Technology (B IT) fulfills the requirements of standard one related to the intended learning outcomes (ILOs). First, the program aims to graduate independently minded IT professionals who develop software and user interfaces for the implementation, redesign, and management of IT systems. B IT makes use of the national HBO-i professional profile that is jointly developed by HBO-ICT programs at various Universities of Applied Sciences in the Netherlands. Second, in addition to hard skills, students learn soft skills that are necessary in professional practice such as project management and *agile* working methods. Finally, industry representatives informed the panel that they are pleased with the focus on practical project implementation and the balance between coding skills and professional soft skills.

The program utilizes the national HBO-i profile (2018) as a foundational framework for the ILOs and curriculum. The HBO-i profile includes a matrix of three domain descriptors: activities (what is a professional doing), architectural layers (what is being worked on), and proficiency levels (at what level is the work being done). This matrix is used to describe the focal points of B IT and ensure that the ILOs and level of the program align with the proficiency indicators associated with the chosen activities and architectural layers. The program substantiates how the chosen descriptors and the ILOs align with the competencies expected of a bachelor graduate (EQF/NLQF 6).

In addition to the hard skills derived from the HBO-i profile, B IT describes ILOs for soft skills, namely, professionalization, and research. In the context of the ILOs the program uses the term professionalization to describe, for example, the ability of graduates to self-direct, communicate and collaborate with colleagues (with varying backgrounds), and account for socio-environmental factors. Research skills refer to the ability to approach problems with an inquisitively critical attitude and utilize research products – students are not expected to perform fundamental research. The panel is pleased that the program includes these competencies which are critical to students future functioning in the professional and public spheres.

The professional profile and curriculum of B IT is aligned with the institutional profile of Inholland UAS. Inholland UAS places emphasis on utilizing current societal challenges as the starting point for teaching and research. The inclusion of ethical and soft skill components in the curriculum of B IT contribute to the structural alignment of the program with the socially oriented profile of the parent institution. The panel notes that there are pressures both external to and within the program to eliminate non-technical aspects of the curriculum. The panel is pleased that the B IT has resisted these pressures and encourages the program to maintain and develop the ethical and other non-technical components of the curriculum.

The panel considers the use of the national profile appropriate for B IT. Furthermore, the panel is satisfied with the translation of the national HBO-i profile into the profile, ILOs, and curriculum of the program. The panel finds that the description of five central competencies for the programs ILOs, namely: analysis, consultancy, design, implementation, and management & control; are well defined and fit for purpose. Finally, industry representatives informed the panel that the program is generally responsive to developments in industry practice.



## 3.2 Curriculum

**Standard 2: The curriculum enables the students to master appropriate (professional or academic) research and professional skills.**

*Explanation NVAO: The curriculum ties in with current (international) developments, requirements and expectations in the professional field and the discipline. Academic skills and/or research skills and/or professional competencies are substantiated in a manner befitting the orientation and level of the program.*

**Standard 3: The contents of the curriculum enable students to achieve the intended learning outcomes.**

*Explanation NVAO: The learning outcomes have been adequately translated into educational objectives of (components of) the curriculum.*

**Standard 4: The structure of the curriculum encourages study and enables students to achieve the intended learning outcomes.**

*Explanation NVAO: The curriculum is designed in a manner conducive to the achievement of the intended learning outcomes. The teaching-learning environment encourages students to play an active role in the design of their own learning process (student-centered approach). The design of the learning environment chimes with the educational philosophy of the institution. If the program is taught in a language other than Dutch, the program must justify its choice. This also applies if the program bears a foreign language name.*

**Standard 5: The curriculum ties in with the qualifications of the incoming students.**

*Explanation NVAO: The admission requirements in place are realistic with a view to the intended learning outcomes.*

B IT fulfills the requirements related to the design and implementation of the curriculum (standards two through five). First, the panel finds that the program has a practical, professionally oriented profile and curriculum. The program demonstrated that it is well connected to the industry and adapts to new developments as they emerge. Second, the curriculum and its structure are aligned with the ILOs in a way that is particularly conducive to student success in all years of the program. Students learn skills in a structured and controlled environment in year one and gradually gain more independence as teaching shifts towards a project centered approach. Third, the population of incoming students is taken into account in the design of the curriculum.

Most of the curriculum at B IT is taught in project-based modules that demand that students actively engage with course content. First and second year students work on imaginary projects designed by instructors to teach specific skills while third and fourth year students work on “real world” projects for (industry) partners of the program. The panel is pleased that the program utilizes this well-developed approach to professional education that allows it to teach to the ILOs while necessitating the development of non-technical, research, and critical thinking skills.

The first two years of the program are the same for all students both in the Dutch and English language tracks. Beginning in the third year of the program students choose minors that help them develop expertise within the broader profile of the program (see figure 1 below). The curriculum of years one and two is focused on helping students develop basic knowledge and skills that form the foundation of the latter half of the program. The first year of the program is more structured and task centric to ease the transition for incoming students towards more autonomous learning environments. This allows B IT to teach professional autonomy alongside technical skills.

The second half of the program is taught entirely in English, allowing students from both language tracks to work together, and contributing to B IT’s aim of teaching students to work in intercultural contexts. Students work on minor modules that comprise 15 or 30 EC. The projects demand that students develop innovative approaches to complex problems for clients that are (external) partners of the program. Research skills play an important role in student’s ability to compete these projects. Students who choose Mobile Development as one of their minors and complete a graduation research project in this area have Mobile Development noted as a track on their diploma. Other profiles (minor, internship, and project combinations) are not noted on diplomas.

	manage & control	analysis	advise	design	realisation		manage & control	analysis	advise	design	realisation
<b>user interaction</b>	0	3	2	3	3		3	3	3	3	3
<b>organisational processes</b>	0	3	2	0	3		0	2	2	0	0
<b>infrastructure</b>	3	3	2	2	2		3	3	2	2	2
<b>software</b>	2	3	3	3	3		2	3	3	3	3
<b>hardware interfacing</b>	0	0	0	0	0		0	3	0	0	0
	Year 1/2 + Big Data + Mobile						Year 1/2 + UX/Security + Mobile				

	manage & control	analysis	advise	design	realisation		manage & control	analysis	advise	design	realisation
<b>user interaction</b>	0	2	2	2	2		3	3	3	3	3
<b>organisational processes</b>	0	3	2	0	3		0	3	2	0	0
<b>infrastructure</b>	3	3	2	3	3		3	3	2	3	3
<b>software</b>	3	3	3	3	3		3	3	3	2	3
<b>hardware interfacing</b>	3	0	0	0	0		3	3	0	0	0
	Year 1/2 + Big Data + Cloud						Year 1/2 + UX/Security + Cloud				

Figure 1: Note that these profiles reflect different combinations of minors.

The ILOs are reflected both in the content and structure of the curriculum. The panel reviewed module and project documentation and finds that these reflect the alignment of the program. It is clear that the content of modules and projects is appropriate. As discussed in standard 1, the panel is particularly pleased that socio-ethical considerations and critical thinking skills are integrated throughout the curriculum. The practical integration of these skills throughout the curriculum plays an important role in their integration in the thought processes and project approach of students. The panel recognizes the impact that these skills will have on the future functioning of graduates in the workplace.

B IT has adjusted its curriculum to address the needs of all incoming students. The program has admissions requirements in place that reflect the demands of the program. The panel is particularly pleased that the program has adjusted its curriculum and the admissions process to account for the high percentage of students with autism spectrum disorder (ASD). The needs of students with ASD are demonstrably taken into account in the didactic framework and the way that student centered learning is incorporated into the curriculum.

B IT educates professionals for an industry that operates across borders. Many future employers of B IT graduates are, or work with, multinational corporations. Students value the international character of the program which mirrors the nature of the industry. Students learn cooperative skills in an inter-cultural setting similar to the one they will encounter in the workplace because the curricular design demands collaboration between students of the Dutch and English tracks in the latter half of the program. The panel notes the importance of English in the technology industry and finds that the program is justified in its choice to use an English name and teach the last two years of the program exclusively in English.

### 3.3 Teaching – Learning Environment

**Standard 6: The staff team is qualified for the realization of the curriculum in terms of content and educational expertise. The team size is sufficient.**

*Explanation NVAO: The teachers have sufficient expertise in terms of both subject matter and teaching methods to teach the program. The teachers have a sufficient command of the language in which they are teaching. The staff policy is conducive in this respect. Sufficient staff is available to teach the program and tutor the students.*

**Standard 7: The accommodation and material facilities (infrastructure) are sufficient for the realization of the curriculum.**

*Explanation NVAO: The accommodation of the program and the facilities are in keeping with the intended learning outcomes and the teaching-learning environment.*

**Standard 8: Tutoring. The tutoring of and provision of information to students are conducive to study progress and tie in with the needs of students.**

*Explanation NVAO: Students receive appropriate tutoring (including students with a functional impairment). The information provision of the program is adequate.*

The teaching-learning environment of B IT is conducive to student success and fulfills the requirements of standard six through eight. The teaching team of B IT is a highly engaged group that fulfills the requirements of standard six. The facilities of the program in Haarlem provide a constructive learning space that facilitates informal contact between everyone involved in the program. Finally, the tutoring and student support system in place is well aligned with the needs of students and plays an important role in reducing drop out among first year students.

The panel finds that the team is large enough to teach the curriculum as planned. The teaching team of B IT is composed of 24 people comprising 19 FTE. While there are issues with work pressure, teaching staff discussed with the panel that they find that program management is open to their concerns and is taking necessary steps to address them.

The panel finds that the teaching staff are qualified to teach the content of the program and are well adjusted to the didactic approach. The staff of the program are qualified to teach the content of the program. Most hold master's degrees and one holds a PhD. Lecturers are given didactic training on the teaching methods used in the course. Students informed the panel that they find their instructors knowledgeable. The teaching staff is qualified to teach in the language of instruction and hiring policies reflect this.

B IT is housed in a space in the Inholland UAS campus in Haarlem. The space includes an open plan office type environment that students use to work on projects. Students informed the panel that they find the facilities available to them appropriate for the program and conducive to a productive learning environment. The program uses digital systems procured by Inholland UAS to facilitate information provision to students. This includes an app, a digital learning environment, digital services such as the library, and a request submission page for the exam board.

Coaching and supervision is integrated into the structure of the program. This includes professional skills modules but also encompasses project supervision and a mentorship system. The panel is impressed by the evidence-based theories that the program has implemented to support students and reduce first year dropout rates. Students are gradually coached into taking more ownership of the learning process in the curriculum, and the supervision models support and enable this. Second year student mentors help underclassmen in their adjustment to the learning environment. Finally, the program demonstrated to the panel the ways in which they are addressing the particular needs of a student population with a greater prevalence of ASD spectrum conditions.

Students have access to a study advisor who monitors and helps students work through barriers to their academic progress. For students who need more extensive support due to personal circumstances the program has a 'study coach+' who works with students to establish a support

system that allows them to participate in the program as normally as possible. This is done in conjunction with the student counselor, lecturers, and the Board of Examiners.

### 3.4 Quality Assurance

**Standard 9: The program has an explicit and widely supported quality assurance system in place. It promotes the quality culture and has a focus on development.**

*Explanation NVAO: The program organizes effective periodic feedback that supports the achievement of the intended learning outcomes. Existing programs implement appropriate improvements based on the results of the previous assessment. They initiate appropriate evaluation and measurement activities to that end. The outcomes of this evaluation demonstrably constitute the basis for development and improvement. Within the institution, those responsible are held to account regarding the extent to which the program contributes to the attainment of the institution's strategic goals. Quality assurance ensures the achievement of the intended learning results. The program committee, examination board, staff, students, alumni and the relevant professional field are actively involved in the program's internal quality assurance. The program's design processes, its recognition, and its quality assurance are in keeping with the European Standards and Guidelines. The program publishes accurate, reliable information regarding its quality, which is easily accessible to the target groups.*

The program fulfills the requirements of standard nine related to quality assurance. B IT demonstrated its development-oriented approach to quality assurance. This approach is aligned with the approach of Inholland UAS and implements the PDCA cycle in a manner appropriate for the setting. The panel was impressed with the way in which all stakeholders are involved in the quality assurance process. In particular the panel complements the program committee for its proactive engagement.

Quality assurance policy at B IT is guided by the Faculty of Engineering, Design and Computing Quality Assurance Handbook (2018) which outlines a development-oriented approach. The policy utilizes the PDCA cycle and is oriented towards both short cycle and strategic evaluations. Short cycle evaluations are designed to monitor teaching and individual courses. Strategic evaluations allow the program to utilize inputs from all stakeholders and formulate annual plans. Progress on these plans is monitored twice a year.

The panel reviewed the recommendations from the previous panel and noted the ways in which B IT has addressed those concerns over the past six years. The program demonstrated that it has taken extensive steps to address these concerns from the introduction of an English language track to improve the international profile of the program, to the refocus on the use of large, industry-realistic, assignments. In particular the panel notes that the program has utilized curricular changes to implement working methods that reduce workloads on both staff and students. B IT also demonstrated steps it has and is taking to increase student retention. The panel is satisfied that the program has taken the recommendations of the previous panel seriously and addressed them.

B IT has documented the stakeholders in the PDCA cycle and defined their roles. These stakeholders include, among others, the exam board and program committee, the latter of which includes students. The panel reviewed documentation about the inputs of the quality assurance cycle and finds that they are appropriate. The panel appreciates the care with which the program has documented its quality assurance system.

In discussions with students and staff the panel noted the particular commitment of B IT's program committee. The panel was pleased to learn about the proactive role that the committee takes in working on improving the program for future students. The panel notes that the collaboration between B IT's management and the program committee works particularly well and finds that this dynamic substantially contributes to the quality assurance process and the future-proofing of the program. The panel encourages program management to continue facilitating the independent and constructively critical voice of the program committee.

### 3.5 Student Assessment

**Standard 10: The program has an adequate student assessment system in place.**

*Explanation NVAO: The student assessments are valid, reliable and sufficiently independent. The quality of interim and final examinations is sufficiently safeguarded and meets the statutory quality standards. The examining board exerts its legal authority. The tests support the students' own learning processes.*

B IT has a system of student assessment in place that fulfills the requirements of standard ten. First, The program utilizes an assessment framework that aligns with its generally project centered didactic approach. The framework maintains flexibility so that appropriate assessment methodologies can be applied by educators in accordance with their course context. Second, the exam board is effective in exercising its power to appoint examiners. The exam committee mandated part of its role regarding testing quality assurance to an assessment committee.

Teachers are free to design their assessments in line within the established guidelines. The assessment committee mandated by the exam board works with instructors to ensure that their exams align with the didactic vision, assess the appropriate learning outcomes, and promote learning. The program applies the four eyes principle to the design of all exams. Furthermore, the assessment committee reviews a random sample of eight tests per year to evaluate validity, reliability, and transparency.

Student assessment utilizes a variety of testing methodologies including: integral testing of competences, summative knowledge assessments, skills-based tests and practical assignments, and assessments of *soft skill* developments on the basis of student reflections. Within projects students are assessed on both an individual and group basis. The learning process is designed to utilize development-oriented feedback to help students improve as projects are completed. Students receive interim assessments from instructors designed to support the learning process and help address weaknesses constructively.

The panel would like to see more consistency in the formative feedback given to students in assessments. Students informed the panel that the quality of formative feedback varies by assignment and by instructor. To address this, the program could increase the use of calibration sessions between teachers to standardize the feedback process. Clear guidelines and criteria should be communicated effectively to students, enabling them to understand how their work will be evaluated and what is expected of them. However, the panel finds that while there is room for improvement here, the current situation meets the expectations of the standard.

The panel recommends that the role of the external examiner be clarified regarding their ability to give a no-go to students working on their graduation project. In practice however, the panel finds that the primary examiner, external examiner, and company supervisor generally align in their assessment of students. Because the approval of an examiner with BKE is required, the level and quality of the assessment is not at risk. Furthermore, the risk of a student who fully meets the requirements not being passed on their first attempt is marginal. So while the program should work to improve the role definitions, the current situation does not inhibit compliance with the standard.

### 3.6 Achieved Learning Outcomes

**Standard 11: The program demonstrates that the intended learning outcomes are achieved.**

*Explanation NVAO: The achievement of the intended learning outcomes is demonstrated by the results of tests, the final projects, and the performance of graduates in actual practice or in post-graduate programs.*

The program demonstrates that graduates realize the ILOs of the program, therefore the program fulfills the requirements of standard 11. The panel reviewed the final projects of 15 graduates and found that the students generally fulfilled the expectations for bachelor level graduates. Of these 11 were graduates of the Dutch track and four were graduates of the English track. The selection was made by first assigning random numbers to all of the graduates from 2022 and 2023. This initial selection was lightly adjusted so that the selected projects statistically reflected all of the projects completed within the time frame (e.g., grade distribution, track followed). The panel finds that industry is generally satisfied with the quality of graduates.

The panel suggests that the program consider ways that it could modernize the graduation project by focusing more on professional products. This could address a problem that the program is already aware of whereby one-third of students make use of the resubmission deadline. The panel discussed this issue with students and staff and finds that it likely has to do with the format and weight given to the written thesis in relation to the professional product. The panel believes that the weight currently given to the written thesis may unnecessarily increase work pressure on students. However, the panel also recognizes that the program may have other ways of addressing this issue.

#### **4. OVERALL JUDGMENT**

The panel finds that the Bachelor of Information Technology offered by Inholland University of Applied Sciences meets the requirements of all of the standards of the extensive NVAO framework for program accreditation. The panel advises that the NVAO re-accredit the program on that basis.



## **5. RECOMMENDATIONS**

The panel would like to see more consistency in the formative feedback given to students in assessments. Students informed the panel that the quality of formative feedback varies by assignment and by instructor. To address this, the program could increase the use of calibration sessions between teachers to standardize the feedback process. Clear guidelines and criteria should be communicated effectively to students, enabling them to understand how their work will be evaluated and what is expected of them.

The panel recommends that the role of the external examiner be clarified regarding their ability to give a no-go to students working on their graduation project. In practice however, the panel finds that the primary examiner, external examiner, and company supervisor generally align in their assessment of students. Because the approval of an examiner with BKE is required, the level and quality of the assessment is not at risk. Furthermore, the risk of a student who fully meets the requirements not being passed on their first attempt is marginal.

The panel suggests that the program consider ways that it could modernize the graduation project by focusing more on professional products. This could address a problem that the program is already aware of whereby one-third of students make use of the resubmission deadline. The panel discussed this issue with students and staff and finds that it likely has to do with the format and weight given to the written thesis in relation to the professional product. The panel believes that the weight currently given to the written thesis may unnecessarily increase work pressure on students. However, the panel also recognizes that the program may have other ways of addressing this issue.

## 6. APPENDICES

### Appendix I Overview of judgements

<b>Overview of the judgements Inholland UAS B Information Technology full time</b>	
<b>Standard</b>	<b>Judgement</b>
<b>Intended Learning Outcomes</b>	
Standard 1. Intended Learning Outcomes	Fulfils the standard
<b>Program</b>	
Standard 2. Orientation programme	Fulfils the standard
Standard 3. Content programme	Fulfils the standard
Standard 4. Programme design	Fulfils the standard
Standard 5. Connection to previous studies	Fulfils the standard
<b>Teaching – Learning Environment</b>	
Standard 6. Staff qualifications and quantification	Fulfils the standard
Standard 7. Housing and facilities	Fulfils the standard
Standard 8. Tutoring and information provision	Fulfils the standard
<b>Quality Assurance</b>	
Standard 9. Quality assurance system	Fulfils the standard
<b>Assessment</b>	
Standard 10. Assessment	Fulfils the standard
<b>Achieved learning outcomes</b>	
Standard 11. Achieved learning outcomes	Fulfils the standard
<b>Overall judgement</b>	<b>Positive</b>

## Appendix II            Agenda of the site-visit

**Bachelor of Information Technology**  
**The site visit took place on April 10, 2024**

Time	Activity
08.45 - 09.00	Welcome
09.00 - 09.30	Preparation by panel
09.30 - 10.00	Presentation
10.00 - 12.00	Showcases of student projects
12.00 – 12.45	Lunch
12.45 – 13.30	Conversation with Exam Committee and Program Committee
13.30 – 13.45	Break
13.45 – 14.45	Conversation with students and alumni
14.45 – 15.00	Break
15.00 – 15.45	Conversation with teachers
15.45 – 16.00	Break
16.00 – 16.30	Conversation with industry representatives
16.30 – 17.00	Conversation with management
17.00 – 17.30	Panel internal conversation
17.30 – 18.00	Feedback

The names of auditees are not included in this report due to privacy concerns. The names of auditees are known by the secretary of the panel.

### **Working methods**

#### ***Selection of the auditees and open consultation opportunity***

In compliance with NVAO regulations the audit panel decided on the composition of the auditee delegations in consultation with the program management and on the basis of the points of attention that arose from the panel's analysis of the provided documentation. The panel provided the opportunity for people not invited to participate in the sessions with the panel to contact the panel in advance of the site visit. This option was made available to students and staff via email and other online platforms used by the program and the panel verified that information about the possibility to contact the panel was made known by the program. No students or staff members made use of the opportunity to contact the panel.

#### ***Auditing process***

The following procedure was adopted. The panel studied the documents regarding the program (see appendix iii) and a number of theses. The panel secretary organized input from the auditors and distributed the preliminary findings among the panel members prior to the audit. A preparatory meeting of the panel was held before the site visit took place at the institute on March 26, 2024.

The panel formulated its preliminary assessments per theme and standard immediately after the site visit. These were based on the findings of the site visit and the assessment of the program documents.

A first version of the assessment report was drafted by the secretary and circulated among the members of the panel for review and comments. The final draft was forwarded to the institution to correct factual inaccuracies. Minor changes were made in the report as a result of the review. The chair of the panel reviewed these changes and confirmed that report was substantially the same. The panel finalized the report on September 12, 2024.

### **Assessment rules**

According to the NVAO assessment rules, a program can either fulfill, partially fulfill or not fulfill the requirements of each standard. Hobéon applied the decision rules, as listed in the "Assessment Framework for higher education accreditation system Netherlands, September 2018.

## Appendix III

## List of documents examined

### List of documents examined

0.1 - Self Evaluation Report ZER Informatica - IT - ENG.pdf  
0.2 Supplement ZER - The numbers Informatica - IT - ENG.pdf  
1.1 Beroepsprofiel Informatica - IT - NL.pdf  
1.1 Professional Profile Informatica - IT - ENG.pdf  
1.2 Opleidingsprofiel Informatica - IT - NL.pdf  
1.2 Programme Profile Infomatica - IT - ENG.pdf  
1.3 OER - Informatica - IT - 2324 - ENG.pdf  
1.3 OER - Informatica - IT -2324 - NL.pdf  
1.4 Onderwijsgids 2324 Inholland - NL.pdf  
1.4 Onderwijsgids Inholland 2324 - ENG.pdf  
2.1 Jaarplan TOI 2024 - NL.pdf  
2.2 Year Planning 2324 Informatica - IT - ENG.pdf  
3.1 Samenstelling docenten team Informatica - IT 2324.pdf  
4.1 Business Alignment Committee Meeting Oct 23.pdf  
4.2 Business Alignment Committee Meeting minutes.pdf  
5.1 Handleiding stage Informatica - IT - NL.pdf  
5.1 Internship handbook Informatica - IT - ENG.pdf  
5.2 Graduation Manual Informatica - IT - ENG.pdf  
5.2 Handleiding afstuderen Informatica - IT - NL.pdf  
5.3 Toegang tot het LMS Moodle showcases Informatica - IT - NL.pdf  
6.1 Jaarverslag Examencommissie ICT 2223 - NL.pdf  
6.2 Jaarverslag opleidingscommissie Informatica - IT - ENG.pdf  
6.3 Jaarverslag Toets commissie Informatica - IT 2223 - NL.pdf  
6.4 Borgingstaken Toets commissies Informatica - IT - NL.pdf  
6.5 Toets beleid TOI - NL.pdf  
6.6 Toets preview formulier cluster ICT TOI - NL.pdf  
6.7 Toetsplan Informatica - IT - NL.pdf  
The numbers Informatica & IT - ENG - update 10 april 24.pdf

Following NVAO regulations, the panel reviewed the final projects of 15 students, including their evaluations. For privacy reasons, the names of these graduates and their student numbers are not included in this report. The names of the graduates, their student number, as well as the titles of the final projects, are known to the secretary of the audit panel.

## Appendix IV      Composition of the audit panel

The Bachelor of Information Technology belongs to:

Visitation group	B Informatica
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Succinct resumes of the panel members:

<b>Name</b>	<b>Succinct CVs</b>
J. van Erp	Special advisor at DECP and lecturer in industrial marketing
T. Dijkhuis	Lecturer and researcher an Hanze University of Applied Sciences Groningen
J. Derwort	Technology leader and consultant CAE crew engagement solutions
J. Maas	Student HBO ICT at Fontys Hogeschool

P. Shapiro	NVAO certified secretary
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Prior to the audit all panel members signed declarations of independence and confidentiality which are in the possession of the NVAO. This declaration certifies, among other things, that panel members have note in the past five years maintained any (family) connections or ties of a personal nature or as a researcher/teacher, professional or consultant with the program in question, which could impact their ability to independently judge the quality of the program in either a positive or negative sense.

In its decision dated February 14, 2024 with reference PA-1830 the NVAO assented to the composition of the panel.

**Hobéon**

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