Assessment plan for the curriculum of the Bachelor's degree programme in Computing Science, 2026-2027

Programme director: Vasilios Andrikopoulos

Date advice Board of Examiners: May 4, 2026

Submission date Faculty Board:

1. Vision on assessment

1. to enable students to independently show academic skills in a professional context (why), assessment will include activities that require individual and collaborative performance, which each have a substantial contribution to the final grade (what)
2. to equip students with the scientific skills essential for contributing to one of the research themes on which the associated research groups are working (why), authentic assessment will be implemented where possible (what)
3. to prepare students for a career in research or design at academia or in an (internationally operating) company (why), assessment is designed to test students independent ability to design and evaluate new computer systems and software in an international and pluricultural context (what)

2. Assessment guidelines

1. Every course has at least one mandatory summative element onsite.
2. The formative and summative assessments are designed by the course coordinator in such a way that all intended learning outcomes of the course are covered.
3. Summative assessments are designed by the course coordinator and are peer reviewed by the second examiner in order to ensure that the course learning outcomes are representatively and sufficiently assessed.
4. Assessment in the form of an oral exam or project presentation is always carried out in the presence of at least 2 examiners (or an examiner and at least one additional expert in the corresponding discipline) or the session is recorded and kept archived for at least two years.
5. All practical work of students should establish a quick (e.g., weekly) feedback loop via formative or summative assessment.
6. Practical work of students should also assess their teamwork and collaboration skills where applicable.
7. Automated testing should be used to increase the amount of formative assessment whenever possible.
8. Courses that have graded elements such as assignments that are affected by the use of Generative AI models should incorporate the adoption of these models in the design of the assignments and/or in the ILOs for the course; in any case, the grading of these elements has to be in compliance with the rules and regulations on the topic as defined by the BoE.
9. The use of Generative AI by examiners is at all times in compliance with the policies on the matter defined by the University and Faculty.

3. Learning outcomes of the degree programme

	Learning Outcome *At the end of the programme, the graduate …*
1	Has the following knowledge, understanding and insights on an academic level: a. knowledge of the main topics of Computing Science; b. understanding of common themes and principles of Computing Science on different levels of abstraction; c. insight in the applicability of Computing Science and the interplay between theory and practice; d. either d1: in-depth knowledge of certain topics in the field of Computing Science, or d2: broad-based knowledge of topics in a different discipline.
2	Has the following skills and competences, on an academic level: a. technical skills associated with Computing Science, including relevant mathematical and logical skills; b. relevant soft skills, including communication, intercultural teamwork and self-managed learning; c. academic skills, including conceptual thinking, critical questioning, judgement forming, scientific research, writing and presenting in English; d. the competence to analyse, structure, redefine and solve problems, using computational methods and tools; e. the competence to design, develop and evaluate computer systems;

	f. the competence to apply their knowledge and understanding of Computing Science in a globalized professional and entrepreneurial context.
3	Has the following attitudes: a. appreciation of the role and importance of mathematics, related disciplines and domain-specific knowledge; b. commitment to professional responsibility, including ethical, societal and intercultural issues, with a self-critical attitude; c. critical and academic attitude towards information and knowledge; d. preparedness to life-long learning, based on the awareness of the highly dynamical character of Computing Science.

4. Overview of assessment methods, test moments for course units, and examiners

This table shows all the course units for each year of the programme and assessment methods.

Year	**Period**	**Course**	**EC**	**Assessment method(s)** Multiple answers may apply	**Does (part of the) assessment have a formative function?**	**Test moment(s) Multiple answers may apply**	**First examiner**	**Second examiner**
1	1a, 1b	Programming Fundamentals WBCS046-10	10	WE, PR, M	Yes	Start, halfway, end	Meijster	Westerman
1	1a	Introduction to Logic (CS) WBCS030-05	5	WE, AST	Yes	Start, halfway, end	Frumin	Hansen
1	1a	Introduction to Computing Science WBCS005-05	5	WE, R, P, PR	Yes	Start, halfway, end	Wilkinson	Frey
1	1b	Discrete Structures WBCS011-05	5	WE, M	Yes	Halfway, end	Bliznets	Hansen
1	1b	Computer Architecture WBCS010-05	5	WE, AST	No	Halfway, end	Merchant	Hassanpour
1	2a	Algorithms and Data Structures in C (for CS) WBCS018-05	5	WE, AST	Yes	Halfway, end	Frey	Bliznets
1	2a	Calculus 1 WBCS055-05	5	WE, M	No	Halfway, end	Kilicer	Kosinka
1	2a	Introduction to Information Systems WBCS021-05	5	WE, AST	Yes	Start, halfway, end	Riveni	Karastoyanova
1	2b	Object-Oriented Programming for CS WBCS028-05	5	MC, PR	Yes	Start, halfway, end	Rastogi	Feitosa
1	2b	Linear Algebra WBCS048-05	5	WE, AST	Yes	Start, halfway, end	Ozman	Kosinka
1	2b	Computer Networks WBCS047-05	5	MC, PR, AST	Yes	Halfway, end	Hassanpour	Riveni
2	1a	Calculus 2 WBCS054-05	5	WE, AST, M	No	Start, halfway, end	Karakurt	Kosinka
2	1a	Advanced Programming WBCS053-05	5	WE, AST	Yes	Start, halfway, end	Feitosa	Groefsema
2	1a	Advanced Algorithms WBCS052-05	5	WE, AST, M, PR	Yes	Start, halfway, end	Bliznets	Bunte
2	1b	Statistics and Probability WBCS049-05	5	WE, AST, R	Yes	Halfway, end	Bliznets	Ramanayake
2	1b	Web Engineering WBCS008-05	5	WE, PR	Yes	End	Andrikopoulos	Westerman
2	1b	Functional Programming WBCS002-05	5	WE, PR	No	End	Meijster	Hansen
2	2a	Introduction to Machine Learning WBCS032-05	5	WE, AST	Yes	Start, halfway, end	Guo	Biehl
2	2a	Operating Systems WBCS023-05	5	MC, AST, PR	Yes	Halfway, end	Hassanpour	Pleiter

Year	Period	Course	EC	Assessment method(s) Multiple answers may apply	Does (part of the) assessment have a formative function?	Test moment(s) Multiple answers may apply	First examiner	Second examiner
2	2a, 2b	Software Engineering WBCS017-10	10	AST	Yes	Start, halfway, end	Capiluppi	Avgeriou
2	2b	Languages and Machines WBCS027-05	5	WE, AST	Yes	Start, halfway, end	Perez	Frumin
2	2b	Introduction to Computer Graphics and Visualization WBCS056-05	5	WE, AST	No	Halfway, end	Kosinka	Frey
3	1a	Introduction to Deep Neural Networks WBCS059-05*	5	WE, AST	Yes	Start, halfway, end	Guo	Biehl
3	1a	Information Retrieval WBCS040-05*	5	WE, P, AST	No	Halfway, end	Azzopardi	Riveni
3	1a	Computer Graphics WBCS019-05*	5	WE, PR	Yes	Start, halfway, end	Kosinka	Frey
3	1a	Computational Complexity WBCS044-05*	5	WE, AST	Yes	Halfway, end	Ramanayake	Perez
3	1a	C++ Fundamentals WBCS033-05**	5	WE, AST	Yes	Start, halfway, end	Pandey	Wilkinson
3	1a	Signals and Systems for CS WBCS042-05*	5	WE, PR	No	Start, halfway, end	Meijster	De Weerd
3	1a	Parallel Computing*	5	WE, AST	Yes	End	Pleiter	Meijster
3	1a	Introduction to Automated Reasoning*	5	WE	No	End	Otoni	Hansen
3	1a, 1b	Bachelor Internship WBCS062-05/WBCS062-15*	5/ 15	R,P	Yes	End	[supervising lecturers]	[supervising lecturers]
3	1b	Introduction to Image Processing WBCS051-05*	5	WE, AST	Yes	Start, halfway, end	Kehl	Wilkinson
3	1b	Process-aware Information Systems WBCS050-05*	5	WE	No	End	Karastoyanova	Riveni
3	1b	Programming in C++ WBCS034-05*	5	WE, AST	Yes	Start, halfway, end	Pleiter	Turkmen
3	1b	Compiler Construction WBCS039-05*	5	WE, PR	Yes	Start, halfway, end	Meijster	Westerman
3	1b	Basic Approaches to the Semantics of Computation WBCS061-05*	5	WE, AST	Yes	Start, halfway, end	Perez	Frumin
3	2a	Fundamentals of Distributed Systems WBCS057-05	5	WE, PR, AST	Yes	Start, halfway, end	Lazovik	Dustegor
3	2a	Information Security WBCS004-05	5	WE, AST	Yes	Start, halfway, end	Mohsen	Turkmen
3	2a	Research Skills in Computing Science WBCS026-05	5	R , PR, AST	Yes	Halfway, end	Dustegor	Kosinka
3	2b	Bachelor's Project	15	R, P, PR	Yes	End	[supervising lecturers]	[supervising lecturers]

** Elective, ** Extracurricular only for CS students, elective for other programmes*

The abbreviations for the relevant teaching methods are explained in the legend of the table.
Examples of assessment methods include:

- *Written Exam (WE)*
- *Multiple Choice (MC)*
- *Oral Exam (OR)*
- *Report (R)*
- *Presentation (P)*
- *Practical Work (PR)*
- *Assignment (AST)*
- *Midterm (M)*

The assessment method defines the test moments; practical work, assignments are continuous. The rest are final and in some cases halfway, through e.g. a midterm exam.

5. Relationship between course units and details of the learning outcomes

An x means that the learning outcome is explicitly assessed (not merely addressed) in the course.

		Learning outcomes of the degree programme																
		1a	1b	1c	1d1	1d2		2a	2b	2c	2d	2e	2f		3a	3b	3c	3d
Period	**Course**	**Year 1 –compulsory courses**																
1a, 1b	Programming Fundamentals			x				x	x	x	x		x		x			
1a	Introduction to Logic (CS)	x	x					x			x				x			
1a	Introduction to Computing Science	x	x	x				x	x	x	x				x	x	x	
1b	Discrete Structures	x		x				x			x						x	
1b	Computer Architecture	x	x	x	x													
2a	Algorithms and Data Structures in C	x	x	x				x	x		x	x					x	
2a	Calculus 1	x						x				x			x			
2a	Introduction to Information Systems	x	x	x				x	x			x	x		x			
2b	Object-Oriented Programming for CS		x	x					x		x	x			x			
2b	Linear Algebra	x						x			x				x			
2b	Computer Networks	x	x	x	x			x			x	x	x			x	x	x
Period	**Course**	**Year 2 compulsory courses**																
1a	Calculus 2	x						x				x			x			

		Learning outcomes of the degree programme																
1a	Advanced Programming			x	x				x		x	x						x
1a	Advanced Algorithms	x	x	x				x	x	x	x	x			x		x	x
1b	Statistics and Probability	x						x		x	x				x			
1b	Web Engineering	x	x		x				x		x							x
1b	Functional Programming		x	x				x		x	x				x			
2a	Introduction to Machine Learning	x		x	x			x			x				x			x
2a	Operating Systems	x	x	x	x			x		x	x		x					x
2a, 2b	Software Engineering	x							x			x	x			x		
2b	Languages and Machines	x	x					x		x	x							
2b	Introduction to Computer Graphics and Visualization	x	x	x	x			x		x	x	x			x		x	x
Period	**Course**	**Year 3 compulsory courses**																
2a	Fundamentals of Distributed Systems		x		x			x			x	x						
2a	Information Security	x	x	x	x			x			x					x	x	x
2a	Research Skills in Computing Science				x	x			x	x	x		x			x	x	x
2b	Bachelor's project			x	x	x			x		x	x	x		x	x	x	x
Period	**Course**	**Year 3 Electives**																
1a	Introduction to Deep Neural Networks				x			x			x	x						
1a	Information Retrieval	x	x	x				x	x	x	x	x			x		x	
1a	Computer Graphics			x	x			x										x
1a	Computational Complexity	x	x	x	x			x		x	x				x			
1a	C++ Fundamentals	x		x				x	x		x							
1a	Signals and Systems for CS		x	x				x		x			x					
1a	Parallel Computing	x	x	x				x	x	x	x	x			x		x	x
1a	Introduction to Automated Reasoning	x	x	x	x			x		x	x				x			
1a, 1b	Bachelor Internship			x	x				x		x	x	x		x	x	x	x
1b	Introduction to Image Processing	x		x	x			x			x	x			x		x	x
1b	Process-aware Information Systems	x		x				x			x						x	
1b	Programming in C++	x	x	x		x		x	x	x	x	x			x	x		
1b	Compiler Construction	x	x	x	x			x			x	x			x			

		Learning outcomes of the degree programme																
1b	Basic Approaches to the Semantics of Computation		x		x			x			x	x						

List of Examiners for the Bachelor Computing Science 2026-2027

Name	Examiner ISP	Course examiner
V. Andrikopoulos	X	X
P. Avgeriou	X	X
G. Azzopardi	X	X
M. Babai	X	X
M. Biehl	X	X
I. Bliznets	X	X
K. Bunte	X	X
A. Capiluppi	X	X
D. Düstegör	X	X
D. Feitosa	X	X
S.D. Frey	X	X
D. Frumin	X	X
H. Groefsema	X	X
J. Guo	X	X
H.H. Hansen	X	X
D. Karastoyanova	X	X
C. Kehl	X	X
J. Kosinka	X	X
A. Lazovik	X	X
K. Li	X	X
A. Meijster	X	X
F.A. Merchant	X	X
F.F.M. Mohsen	X	X
R.B. Otoni	X	X
S.K. Pandey	X	X
J.A. Perez Parra	X	X
D.H. Pleiter	X	X
D.R.S. Ramanayake	X	X
A. Rastogi	X	X
M. Riveni	X	X

B. Setz	X	
M. Stal	X	X
T. van der Storm	X	
F. Turkmen	X	X
M.H.F. Wilkinson	X	X
R. Zare Hassanpour	X	X
N. Petkov	X	
G.R. Renardel de Lavalette	X	

ISP: Individually supervised projects, such as thesis projects and internships: PhD students and Postdocs cannot serve as first or second examiner.