

Appendix 1a - Mandatory Module and Examination Plan for World Track

Computer Science – World Track													
Matriculation Fall 2018													
Program-Specific Modules					Jacobs Track Modules (General Education)								
Type	Status ¹	Semester	Credits		Type	Status ¹	Semester	Credits					
Year 1 - CHOICE					Year 1 - CHOICE					45	20		
Take the mandatory CHOICE module listed below, this is a requirement for the CS program.													
CH08-GenCS	Module: General Computer Science		m	15	JT-ME-MethodsMath	Module: Methods / Mathematics		m	7,5				
CH08-320101	Introduction to Computer Science	Lecture	m	1	5	JT-ME-120103	Calculus I	Lecture	m	1	2,5		
CH08-320142	Programming in C++ I	Lab	m	1	2,5	JT-ME-120104	Calculus II	Lecture	m	1	2,5		
CH08-320201	Algorithms and Data Structures	Lecture	m	2	5	JT-ME-120122	Foundations of Linear Algebra I	Lecture	m	2	2,5		
CH08-320143	Programming in C++ II	Lab	m	2	2,5	JT-SK-Skills	Module: Skills⁵		m	5			
				Module: CHOICE (own selection)	e	1/2	30	JT-SK-320111	Programming in C I	Lecture	m	1	2,5
Students take two further CHOICE modules from those offered for all other study programs. ²													
					JT-SK-320112	Programming in C II	Lecture	m	2	2,5			
					JT-TA-TriArea	Module: Triangle Area		m	2,5				
					Take one course from the triangle (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT) area. Each counts 2,5 ECTS ³			me	1/2	2,5			
					JT-LA-Language	Module: Language		m	5				
					Take two German courses (2,5 ECTS each).		Seminar	me	1/2	5			
					Native German speakers take courses in another offered language								
					CA01-CarAdv	Career Advising ⁴		m					
Year 2 - CORE					Year 2 - CORE					45	20		
Take all three modules <u>or</u> replace one with a CORE module from a different study program. ²													
CO19-ApplCS	Module: Applied Computer Science		me	15	JT-ME-MethodsMath	Module: Methods / Mathematics		m	7,5				
CO19-320302	Databases and Web Services	Lecture	m	3	5	JT-ME-120201	Elements of Probability	Lecture	m	3	2,5		
CO19-320322	Computer Graphics	Lecture	m	3	5	JT-ME-120113	Foundations of Linear Algebra II	Lecture	m	3	2,5		
CO19-320212	Software Engineering	Lecture	m	4	5	JT-ME-120202	Numerical Methods I	Lecture	m	4	2,5		
CO20-TechCS	Module: Technical Computer Science		me	15	JT-TA-TriArea	Module: Triangle Area		m	7,5				
CO20-320202	Operating Systems	Lecture	m	3	5	Take three courses from the triangle (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT) area. Each counts 2,5 ECTS ³		me	3/4	7,5			
CO20-320241	Computer Architecture and Programming Languages	Lecture	m	3	5								
CO20-320301	Computer Networks	Lecture	m	4	5	JT-LA-Language	Module: Language		m	5			
CO21-TheoCS	Module: Theoretical Computer Science		me	15	Take two German courses (2,5 ECTS each).		Seminar	me	3/4	5			
CO21-320211	Formal Languages and Logic	Lecture	m	3	5	Native German speakers take courses in another offered language							
CO21-320203	Secure and Dependable Systems	Lecture	m	4	5	CA01-CarAdv	Career Advising⁴		m				
CO21-320352	Computability and Complexity	Lecture	m	4	5								
Year 3 - CAREER					Year 3 - CAREER					45	5		
CA02 / CA03	Module: Internship / Study Abroad		m	5	20	JT-TA-TriArea	Module: Triangle Area		m	5			
				CA10-CS	Module: Project/Thesis CS		m	15	Take two courses from the triangle (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT) area. Each counts 2,5 ECTS ³				
CA10-320305	Project CS		m	6	5				me	6	5		
CA10-320306	Thesis CS		m	6	10	CA01-CarAdv	Career Advising⁴		m				
CA-S-CS	Module: Specialization Area CS		m	10									
				Take 10 ECTS of specialization courses ²					me	5/6	10		
Total ECTS										180			

¹ Status (m = mandatory, e = elective, me = mandatory elective) ² For a full listing of all CHOICE / CORE / CAREER / Jacobs Track modules please consult the CampusNet online catalogue and / or the module handbook (on our website).

³ You are required to take six Triangle Area courses in total. Select two from each of the three triangle areas (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT).

⁴ Mandatory component of the Jacobs University's Counseling and Advising Scheme.

⁵ CS students may also take the *Programming in Python* skills courses, but the received credits will not count towards the 180 ECTS credits required by the major nor do they count for the GPA.

Appendix 1b - Mandatory Module and Examination Plan for Campus Track

Computer Science – Campus Track											
Matriculation Fall 2018											
Program-Specific Modules	Type	Status ¹	Semester	Credits		Jacobs Track Modules (General Education)	Type	Status ¹	Semester	Credits	
Year 1 - CHOICE					45	Year 1 - CHOICE					20
<i>Take the mandatory CHOICE module listed below, this is a requirement for the CS program.</i>											
CH08-GenCS	Module: General Computer Science		m	15		JT-ME-MethodsMath	Module: Methods / Mathematics		m	7,5	
CH08-320101	Introduction to Computer Science	Lecture	m	1	5	JT-ME-120103	Calculus I	Lecture	m	1	2,5
CH08-320142	Programming in C++ I	Lab	m	1	2,5	JT-ME-120104	Calculus II	Lecture	m	1	2,5
CH08-320201	Algorithms and Data Structures	Lecture	m	2	5	JT-ME-120122	Foundations of Linear Algebra I	Lecture	m	2	2,5
CH08-320143	Programming in C++ II	Lab	m	2	2,5	JT-SK-Skills	Module: Skills ⁵		m		5
Module: CHOICE (own selection)			e	1/2	30	JT-SK-320111	Programming in C I	Lecture	m	1	2,5
Students take two further CHOICE modules from those offered for all other study programs. ²											
Year 2 - CORE					45	Year 2 - CORE					20
<i>Take all three modules <u>or</u> replace one with a CORE module from a different study program.²</i>											
CO19-ApplCS	Module: Applied Computer Science		me	15		JT-ME-MethodsMath	Module: Methods / Mathematics		m	7,5	
CO19-320302	Databases and Web Services	Lecture	m	3	5	JT-ME-120201	Elements of Probability	Lecture	m	3	2,5
CO19-320322	Computer Graphics	Lecture	m	3	5	JT-ME-120113	Foundations of Linear Algebra II	Lecture	m	3	2,5
CO19-320212	Software Engineering	Lecture	m	4	5	JT-ME-120202	Numerical Methods I	Lecture	m	4	2,5
CO20-TechCS	Module: Technical Computer Science		me	15		JT-TA-TriArea	Module: Triangle Area		m	7,5	
CO20-320202	Operating Systems	Lecture	m	3	5	Take three courses from the triangle (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT) area. Each counts 2,5 ECTS ³			me	3/4	7,5
CO20-320241	Computer Architecture and Programming Languages	Lecture	m	3	5	JT-LA-Language					
CO20-320301	Computer Networks	Lecture	m	4	5	Module: Language		m	5		
Module: Theoretical Computer Science			me	15		Take two German courses (2,5 ECTS each).		Seminar	me	3/4	5
CO21-320211	Formal Languages and Logic	Lecture	m	3	5	Native German speakers take courses in another offered language					
CO21-320203	Secure and Dependable Systems	Lecture	m	4	5	CA01-CarAdv					
CO21-320352	Computability and Complexity	Lecture	m	4	5	Module: Career Advising⁴		m	5		
Year 3 - CAREER					45	Year 3 - CAREER					5
COXX	Module: Additional (4th) CORE module		m	5/6	15	JT-TA-TriArea					
						Module: Triangle Area		m	5		
						Take two courses from the triangle (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT) area. Each counts 2,5 ECTS ³			me	5	5
CA10-CS	Module: Project/Thesis CS		m	15		CA01-CarAdv					
CA10-320305	Project CS		m	5	5	Module: Career Advising⁴		m	5		
CA10-320306	Thesis CS		m	6	10						
Module: Specialization Area CS			m	15							
Take 15 ECTS of specialization courses ²			me	5/6	15						
Total ECTS										180	

¹ Status (m = mandatory, e = elective, me = mandatory elective)

² For a full listing of all CHOICE / CORE / CAREER / Jacobs Track modules please consult the **CampusNet online catalogue** and / or the module handbook (on our website).

³ You are required to take six Triangle Area courses in total. Select two from each of the three triangle areas (BUSINESS, TECHNOLOGY & INNOVATION, SOCIETAL CONTEXT).

⁴ Mandatory component of the Jacobs University's Counseling and Advising Scheme.

⁵ CS students may also take the *Programming in Python* skills courses, but the received credits will not count towards the 180 ECTS credits required by the major nor do they count for the GPA.