

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



Computer Science – World Track																						
Matriculation Fall 2017																						
Program-Specific Modules					Jacobs Track Modules (General Education)																	
Type	Status ¹	Semester	Credits		Type	Status ¹	Semester	Credits														
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	Object-Oriented Programming 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	Object-Oriented Programming 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										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). Native German speakers take courses in another offered language			Seminar	me	1/2	5	
										CA01-CarAdv			Career Advising ⁴			m						
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-AppCS	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																	
CO21-TheoCS	Module: Theoretical Computer Science			me	15	JT-LA-Language	Module: Language			m	5											
CO21-320211	Formal Languages and Logic	Lecture	m	3	5	Take two German courses (2,5 ECTS each). Native German speakers take courses in another offered language					Seminar	me	3/4	5								
CO21-320203	Secure and Dependable Systems	Lecture	m	4	5																	
CO21-320352	Computability and Complexity	Lecture	m	4	5																	
										CA01-CarAdv			Career Advising ⁴			m						
Year 3 - CAREER					45					5												
CA02 / CA03	Module: Internship / Study Abroad			m	5	20	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	6	5							
CA10-CS	Module: Project/Thesis CS			m	15						CA01-CarAdv			Career Advising ⁴			m					
CA10-320305	Project CS		m	6	5																	
CA10-320306	Thesis CS		m	6	10																	
CA-S-CS	Module: Specialization Area CS			m	10																	
Take four specialization courses (2,5 ECTS each) 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 2017													
Program-Specific Modules					Jacobs Track Modules (General Education)								
Type	Status ¹	Semester	Credits		Type	Status ¹	Semester	Credits					
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	Object-Oriented Programming 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	Object-Oriented Programming 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								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). Native German speakers take courses in another offered language	Seminar	me	1/2	5
								CA01-CarAdv	Career Advising ⁴			m	
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-AppCS	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	Module: Language			m	5		
CO20-320301	Computer Networks	Lecture	m	4	5		Take two German courses (2,5 ECTS each). Native German speakers take courses in another offered language	Seminar	me	3/4	5		
CO21-TheoCS	Module: Theoretical Computer Science			me	15	CA01-CarAdv	Career Advising ⁴			m			
CO21-320211	Formal Languages and Logic	Lecture	m	3	5								
CO21-320203	Secure and Dependable Systems	Lecture	m	4	5								
CO21-320352	Computability and Complexity	Lecture	m	4	5								
Year 3 - CAREER					45					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								
CA10-320305	Project CS		m	5	5	CA01-CarAdv	Career Advising ⁴			m			
CA10-320306	Thesis CS		m	6	10								
CA-S-CS	Module: Specialization Area CS			m	15								
	Take four specialization courses (2,5 ECTS each) 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).

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