

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

Program-Specific Modules						Jacobs Track Modules (General Education)						
	Type	Status ¹	Semester	Credits		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 IMS program.</i>												
CH09-IntroIMS	Module: Introduction to Intelligent Mobile Systems			m	15	JT-ME-MethodsMath	Module: Methods / Mathematics		m	7,5		
CH09-320103	General Intelligent Mobile Systems I	Lecture	m	1	5	JT-ME-120103	Calculus I	Lecture	m	1	2,5	
CH09-320113	Introduction to Intelligent Mobile Systems Lab I	Lab	m	1	2,5	JT-ME-120104	Calculus II	Lecture	m	1	2,5	
CH09-320104	General Intelligent Mobile Systems II	Lecture	m	2	5	JT-ME-120122	Foundations of Linear Algebra I	Lecture	m	2	2,5	
CH09-320114	Introduction to Intelligent Mobile Systems Lab II	Lab	m	2	2,5	JT-SK-Skills						
Module: CHOICE (own selection)					e	1/2	30	Module: Skills		m	5	
<i>Students take two further CHOICE modules from those offered for all other study programs. ²</i>												
						JT-SK-320111		Programming in C I	Lecture	m	1	2,5
						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-CarSkills		Module: Career Skills		m		
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>												
CO22-IntelSys	Module: Intelligent Systems			me	15	JT-ME-MethodsMath	Module: Methods / Mathematics		m	7,5		
CO22-320671	Computer Vision	Lecture	m	3	5	JT-ME-120201	Elements of Probability	Lecture	m	3	2,5	
CO22-320311	Robotics	Lecture	m	4	5	JT-ME-120113	Foundations of Linear Algebra II	Lecture	m	3	2,5	
CO22-320372	Machine Learning	Lecture	m	4	5	JT-ME-120202	Numerical Methods I	Lecture	m	4	2,5	
CO23-AutoControl	Module: Automation and Control			me	15	JT-TA-TriArea	Module: Triangle Area		m	7,5		
CO23-320301	Control 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	
CO26-300312	Embedded Systems Lab	Lab	m	3	5	JT-LA-Language						
CO23-320203	Automation	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
CO24-PlanOpt	Module: Planning and Optimization			me	15	CA01-CarSkills		Module: Career Skills		m		
CO29-080202	Operations Research	Lecture	m	3	5							
CO24-300491	Optimization	Lecture	m	4	5							
CO24-320521	Artificial Intelligence	Lecture	m	3	5							
Year 3 - CAREER					45	Year 3 - CAREER					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	
CA09-IMS	Module: Project/Thesis IMS			m	15	CA01-CarSkills						
CA09-320303	Project IMS		m	6	5							
CA09-320304	Thesis IMS		m	6	10							
CA-S-IMS	Module: Specialization Area IMS			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).

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

Program-Specific Modules					Jacobs Track Modules (General Education)						
Type	Status ¹	Semester	Credits		Type	Status ¹	Semester	Credits			
Year 1 - CHOICE					Year 1 - CHOICE					20	
<i>Take the mandatory CHOICE module listed below, this is a requirement for the IMS program.</i>											
CH09-IntroIMS	Module: Introduction to Intelligent Mobile Systems		m	15	JT-ME-MethodsMath	Module: Methods / Mathematics		m	7,5		
CH09-320103	General Intelligent Mobile Systems I	Lecture	m	1	5	JT-ME-120103	Calculus I	Lecture	m	1	2,5
CH09-320113	Introduction to Intelligent Mobile Systems Lab I	Lab	m	1	2,5	JT-ME-120104	Calculus II	Lecture	m	1	2,5
CH09-320104	General Intelligent Mobile Systems II	Lecture	m	2	5	JT-ME-120122	Foundations of Linear Algebra I	Lecture	m	2	2,5
CH09-320114	Introduction to Intelligent Mobile Systems Lab II	Lab	m	2	2,5						
Module: CHOICE (own selection)			e	1/2	30	JT-SK-Skills	Module: Skills		m	5	
<i>Students take two further CHOICE modules from those offered for all other study programs. ²</i>					JT-SK-320111	Programming in C I	Lecture	m	1	2,5	
					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-CarSkills	Module: Career Skills		m			
Year 2 - CORE					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>											
CO22-IntelSys	Module: Intelligent Systems		me	15	JT-ME-MethodsMath	Module: Methods / Mathematics		m	7,5		
CO22-320671	Computer Vision	Lecture	m	3	5	JT-ME-120201	Elements of Probability	Lecture	m	3	2,5
CO22-320311	Robotics	Lecture	m	4	5	JT-ME-120113	Foundations of Linear Algebra II	Lecture	m	3	2,5
CO22-320372	Machine Learning	Lecture	m	4	5	JT-ME-120202	Numerical Methods I	Lecture	m	4	2,5
CO23-AutoControl	Module: Automation and Control		me	15	JT-TA-TriArea	Module: Triangle Area		m	7,5		
CO23-320301	Control 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
CO26-300312	Embedded Systems Lab	Lab	m	3	5						
CO23-320203	Automation	Lecture	m	4	5	JT-LA-Language	Module: Language		m	5	
CO24-PlanOpt	Module: Planning and Optimization		me	15		Take two German courses (2,5 ECTS each). Native German speakers take courses in another offered language	Seminar	me	3/4	5	
CO29-080202	Operations Research	Lecture	m	3	5	CA01-CarSkills	Module: Career Skills		m		
CO24-300491	Optimization	Lecture	m	4	5						
CO24-320521	Artificial Intelligence	Lecture	m	3	5						
Year 3 - CAREER					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
CA09-IMS	Module: Project/Thesis IMS		m	15		CA01-CarSkills	Module: Career Skills		m		
CA09-320303	Project IMS		m	5	5						
CA09-320304	Thesis IMS		m	6	10						
CA-S-IMS	Module: Specialization Area IMS		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)

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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).