Study and Examination Plan

Physics BSc

Matriculation Fall	atriculation Fall 2022													
	Program-Specific Modules	Туре	Assessment	Period	Status ¹	Sem. CP		Jacobs Track Modules (General Education)	Type	Assessment	Period	Status ¹	Sem.	CP
Year 1 - CHOIC	E									15				
Take the mandatory	CHOICE modules listed below, these are a requirement for the physics p Unit: Classical and Modern Physics (default minor)	program.				15		Unit: Skille / Mathade						10
CH-140	Module: Classical Physics (default minor)				m	7.5	JTMS-MAT-09	Module: Calculus and Elements of Linear Algebra I				m	1	5
CH-140-A	Classical Physics (dentate mator)	Lecture	Written exam	Examination period		1 5	ITMS-09	Calculus and Elements of Linear Algebra I	Lecture	Written exam	Examination period		<u> </u>	
CH-140-B	Classical Physics Lab	Lab	Lab report	During the semester		1 25	511110 05	Cardials and Elements of Elinear Augesta	Loceture	Winten caun	Examination period			
CH-141	Module: Modern Physics (default minor)	240		During the Semester	m	7.5	JTMS-MAT-10	Module: Calculus and Elements of Linear Algebra II				m	2	5
CH-141-A	Modern Physics	Lecture	Written exam	Examination period		2 5	ITMS-10	Calculus and Elements of Linear Alashra II	Lecture	Written exam	Examination period			
CH-141-R	Modern Physics Lab	Lab	I ab report	During the semester		2 25	51 MIS-10	Carculus and Elements of Elical Algebra fi	Lecture	written exam	Examination period			
Taka one of the two r	modelin'i hysics Eab	ant for the ph	cao report	build uc schester		2 2.3		Unit: Language	<u> </u>			_		5
CIL 202	Modulo: Applied Mathematics	eni jor ine prij	sies program (see sine	iy program nanabook).	mo	7.5		Common in default language Nation Common analysis tales madules in a	anthan affer	and law manage		_		
CH 202 A	Advanced Calculus and Mathade of Mathamatical Physics	Lactura	Written avam	Examination pariod	ше	2 5	ITT A	Module: Language 1	iouler offer	red language.			1	2.5
CII 202-A	Numarical Softwara Lab	Lecture	I ab raport	During the comparison		2 3	ITLA YYY	I approace 1	Saminar	Various	Various	ma	-	2.3
CII 220	Madulas Interduction to Dahotics and Intelligent Contemp	Lab	Lab report	During the semester		2 2.5	ITLA	Madalas Language 1	Seminar	various	various	me	2	25
CH-220	Interduction to Robotics and Intelligent Systems	Lastern			me	1.5	JILA	Module: Language 2	C	Variana	Variaur		-2	2.3
CH-220-A	Introduction to Robotics and Intelligent Systems	Lecture	Written examination	Examination period		2 3	JILA-XX	Language 2	Seminar	various	various	me		
СН-220-В	Intro to RIS - Iab	Lab				2 2.5								
	Unit: CHOICE (own selection)				me	1/2 22.5								
	Take three further CHOICE modules from those offered for other stud	dy programs:	Two modules in 1st, o	ne in 2nd semester.										
Year 2 - CORE												15		
Take all modules list	ed below or replace 15 CP of mandatory elective ("me") modules by suit	able CORE m	odules from other stud	ly programs ³										
	Unit: Advanced Physics I					15		Unit: Skills / Methods (take a total of 10 CP of skills/methods module	s, see list b	elow)		-	3+4	10
CO-480	Module: Analytical Mechanics (default minor)2				m	5	JTMS-MAT-12	Module: Probability and Random Processes	-			me	3	5
CO-480-A	Analytical Mechanics	Lecture	Written exam	Examination period		3	ITMS-12	Probability and Random Processes	Lecture	Written exam	Examination period		<u> </u>	5
CO 481	Module: Quantum Mechanics (default minor) ²	Lecture	Winten exam	Cantinuation period	m	5	ITMS-MAT-13	Module: Numerical Methods	Locerure	Winten count	Examination period	me	4	5
CO 481 A	Quantum Machanica	Lactura	Written avam	Examination pariod		4	ITMS 12	Numerical Mathods	Lactura	Written avam	Examination pariod		<u> </u>	5
CO 482	Module: Computational Physics (default minor)2	Lecture	written caam	Examination period	mo	-	Altermatives	Numerical Methods	Lecture	written exam	Examination period			
CO-462	Generated Physics I	Loutons			inc	2 26	TTME EVI 14	Madala Decomping in Datas	-				2	5
CO 482 B	Computational Physics I	Lecture	Project	During the semester		3 2.5	J1M3-3KI-14	Deservation in Dath on	Lasters	Weitten	Equipation product	me	3	3
СО-482-В	Computational Physics II	Lecture			-	4 2.5	JT M3-14	Plogramming in Python	Lecture	written exam	Examination period		_	5
	Unit: Advanced Physics II					15	00-501	Module: Discrete Mathematics		THE SECOND		me	4	2
CO-483	Module: Electrodynamics		W.L. Su		m	5	CO-501-A	Discrete Mathematics	Lecture	Written exam	Examination period			
CO-483-A	Electrodynamics	Lecture	Written exam	Examination period		3								
CO-484	Module: Statistical Physics				m	5								
CO-484-A	Statistical Physics	Lecture	Written exam	Examination period		4								
CO-485	Module: Renewable Energy				me	5								
CO-485-A	Renewable Energy	Lecture	Project	During the semester		4						_		
	Unit: Advanced Physics Labs					15		Unit: Language						5
CO-486	Module: Advanced Physics Lab I		Oral exam	Before examination period	m	5		German is default language. Native German speakers take modules in a	aother offer	red language.				
CO-486-A	Advanced Physics Lab I	Lab	Lab report	During the semester		3	JTLA	Module: Language 3				m	3	2.5
CO-487	Module: Advanced Physics Lab II		Oral exam	Before examination period	m	5	JTLA-xxx	Language 3	Seminar	Various	Various	me		
CO-487-A	Advanced Physics Lab II	Lab	Lab report	During the semester		4								
CO-488	Module: Advanced Physics Lab III		Oral exam	Before examination period	me	5	JTLA	Module: Language 4				m	4	2.5
CO-488-A	Advanced Physics Lab III	Lab	Lab report	During the semester		5/3	JTLA-xxx	Language 4	Seminar	Various	Various	me		
Year 3 - CAREE	R									15				
CA-INT-900	Module: Internshin / Startun and Career Skills				m	4/5 15		Unit: Big Questions						10
CA-INT-900-0	Internship / Startup and Career Skills	Intersnhip	Report/Business Plan	During the 5th semester			JTBQ	Module: Big Questions				m	5/6	
CA-PHY-800	Module: Thesis / Seminar Physics				m	6 15	Take a total of 10 C	CP of Big Questions modules with each 2.5 or 5 CP	Lecture	Various	Various	me		
CA-PHY-800-S	Thesis Physics	Project	Thesis and	15 th of May		12		Unit: Community Impact Project						5
CA-PHY-800-T	Seminar Physics	Seminar	Presentation	During the semester		3	JTCI-CI-950	Module: Community Impact Project				m	5	5
	Unit: Specialization Physics (Take a total of 15 CP of specialization n	nodules) 4				15	JTCI-950	Community Impact Project	Project	Project	Examination period			
CA-S-PHY-801	Module: Condensed Matter Physics				me	5								
CA-PHY-801-A	Condensed Matter and Devices	Lecture	Written exam	Examination period		5								
CA-PHY-802	Module: Particles, Fields and Quanta				me	5								
CA-PHY-802-A	Elementary Particles and Fields	Lecture	Presentation	During the competer		6 2.5								
CA-PHY-802-B	Advanced Quantum Physics	Lecture	Tresentation	During the semester		6 2.5								
CA-PHY-804	Module: Biophysics (A)				me	2.5								
CA-PHY-804-A	Biophysics	Lecture	Presentation	During the semester		6 2.5								
CA-PHY-805	Module: Atoms & Molecules (A)				me	2.5								
CA-PHY-805-A	Atoms & Molecules	Lecture	Presentation	During the semester		6 2.5								
CA-PHY-806	Module: Nanotechnology (B)				me	2.5								
CA-PHY-806-A	Nanotechnology	Lecture	Presentation	During the semester		6 2.5								
CA-PHY-807	Module: Advanced Optics (B)				me	2.5								
CA-PHY-807-A	Advanced Optics	Lecture	Written exam	Examination period		6 2.5								
Specialization electi	ves from other study programs (see physics study program handbook)		Various	Various	me	5/6 5								
Total CP														180
Status (m = m 1	the second state of a time of a factor of the second state of the	and a second second		a sharing and sharing a start	111-)					· · ·		_		100
 Status (m = manda Ferra 6 (111) - 6' 	for y, me - manuatory elective). "Atternative module choices for a	manor in phy	ysics are possible (se	to physics study program hand	IUUOKJ.	-1			+					
ror a full listing o	Tan UNDICE / COKE / CAKEEK / Jacobs Track modules please of	consult the Ca	ampusivet online cata	nogue and /or the study progra	am handbo	OKS.								
⁴ Specialization mo	dules indicated with A or B are offered biennally: the letter A refe	rs to odd-nur	nbered calendar year	s, the letter B refers to even-r	umbered o	alendar vear								