Masterstudiengang
M.Sc Physics

TECHNISCHE UNIVERSITÄT DARMSTADT

Part-time study and examination plan 8 semesters (SB2024VI) from 1.12.2024

Legende		Prüfungsleistungen						Kurs				Semester							
Bewertungs-system:	St = Standard (benotet); bnb = bestanden/nicht bestanden											Die Zuordnung der Prüfungen zu Semestern hat empfehlenden Charakter.							
Prüfungsform:	A= Abgabe, B=Bericht, E=Essay, H=Hausarbeit, HÜ= Hausübungen, Arbeitsblätter, K = Klausur, Kq= Kolloquium, M=Mündliche Prüfungsleistung mit Spezifizierung in der Modulbeschreibung, mP= mündliche Prüfungsleistung M/S=Mündliche/Schriftliche Prüfungsleistung mit Spezifizierung in der Modulbeschreibung, P= Protokoll, Pt= Präsentation, R=Referat, S=Schriftliche Prüfungsleistung mit Spezifizierung in der Modulbeschreibung, SF= Sonderform, Th=Thesis																	
Status:	o = obligatorisch; f = fakultativ																		
Art der Lehrform:	VL=Vorlesung; S=Seminar; Ü=Übung; …																		
CP:	Leistungspunkte											Arbeitsaufwand pro Semester (CP)							
	TUCaN-Nr. und Zuordnung von CP zu Modulbausteinen haben informativen Charakter. Die Anrechnung der CPs erfolgt nach Abschluss des Moduls.	Fachprüfung	Studienleistung	Prüfungsform	Dauer (min)	Gewichtung f. Modulnote	Gewichtung f. Gesamtnote	Semesterwochenstunden (SWS)	Status	Lehrform	CP gesamt	1.	2.	3.	4.	5.	6.	7.	8.
Study Area: Advanced Theoretical Physics								**5**	**o**		**7**								
05-22-1422	Advanced Quantum Mechanics	St		mP/K	30/120	100%	100%	5	o		7	7							
05-21-1422-vl	Advanced Quantum Mechanics							3	o	VL		x							
05-23-1422-ue	Advanced Quantum Mechanics							2	o	Ü		x							
Study Area: Seminars								**4**	**o**		**10**								
Katalog	1 Seminar Theoretical Physics		St	Pt	30	100%	100%	2	o		5	5							
Katalog	1 Seminar Experimental Physics		St	Pt	30	100%	100%	2	o		5		5						
Study Area: Specialisation (1 out of 3) (Typ § 30 Abs. 4 Specialisation - Focus)								**20**	**o**		**28**			10	13	5			
Specialisation: Nuclear Physics and Nuclear Astrophysics									**f**										
05-21-1357	Focus Nuclear Physics and Nuclear Astrophysics	St		mP	60	100%	100%	8	o		13				13				
05-21-3282-vl	Theoretical Nuclear Physics							3	o	VL				x					
05-23-3282-ue	Theoretical Nuclear Physics							1	o	Ü				x					
05-21-3421-vl	Experimental Nuclear Physics							3	o	VL					x				
05-23-3421-ue	Experimental Nuclear Physics							1	o	Ü					x				
	Compulsory Optional Subjects from Physics 2 Elective Physics Courses from the Following Catalogues (Type § 30 para. 6 with unlimited change of module)		bnb	M/K	30/-	100%	0%	8	o		10			5		5			
Katalog	K: Courses without In-depth Lectures								f	VL/Ü									
Katalog	F: Physics of Condensed Matter								f	VL/Ü									
Katalog	H: High Energy Density in Matter								f	VL/Ü									
Katalog	Q: Quantum Technology								f	VL/Ü									
Katalog	B: Courses without In-depth Lectures								f	VL/Ü									
	Elective Physics Course, 1 Elective Physics Course from the Following Catalogues (Type § 30 para. 6 with unlimited change of module)		bnb	M/K	30/-	100%	0%	4	o		5			5					
Katalog	B: Courses without In-depth Lectures								f	VL/Ü									
Katalog	F: Physics of Condensed Matter								f	VL/Ü									
Katalog	H: High Energy Density in Matter								f	VL/Ü									
Katalog	Q: Quantum Technology								f	VL/Ü									
Specialisation: High Energy Density in Matter									**f**										
05-21-1355	Focus High Energy Density in Matter	St		mP	60	100%	100%	8	o		13				13				
05-21-2071-vl	Intense Laser Beams							3	o	VL					x				
05-23-2071-ue	Intense Laser Beams							1	o	Ü					x				
05-21-3212-vl	Atoms and Ions in Plasma							3	o	VL				x					
05-23-3212-ue	Atoms and Ions in Plasma							1	o	Ü				x					
	Compulsory Optional Subjects from Physics: 2 Elective Physics Courses from the Following Catalogues (Type § 30 para. 6 with unlimited change of module)		bnb	M/K	30/-	100%	0	8	o		10			5		5			
Katalog	H: Courses without In-depth Lectures								f	VL/Ü									
Katalog	B: Physics and Technology of Accelerators								f	VL/Ü									
Katalog	F: Physics of Condensed Matter								f	VL/Ü									
Katalog	Q: Quantum Technology								f	VL/Ü									
Katalog	K: Nuclear Physics and Nuclear Astrophysics								f	VL/Ü									
	Elective Physics Course, 1 Elective Physics Course from the Following Catalogues (Type § 30 para. 6 with unlimited change of module)		bnb	M/K	30/-	100%	0%	4	o		5			5		5			
Katalog	B: Physics and Technology of Accelerators								f	VL/Ü									
Katalog	F: Physics of Condensed Matter								f	VL/Ü									
Katalog	Q: Quantum Technology								f	VL/Ü									
Katalog	K: Nuclear Physics and Nuclear Astrophysics								f	VL/Ü									
Individual Specialisation: (Authorised Examination Plan necessary)									**f**										
05-29-0002	Individual Focus / Specialisation	St		mP	60	100%	100%	8	o		13				13				
	Lectures Experimental Physics (Courses)							4	o	VL/Ü									
	Lectures Theoretical Physics (Courses)							4	o	VL/Ü									
	2 Compulsory Optional Subjects from Physics and 1 Elective Physics Course from the Following Catalogues (Type § 30 para. 6 with unlimited change of module)		bnb	M/K	30/-		0%	11	o		15			10		5			
Katalog	B: Physics and Technology of Accelerators								f	VL/Ü									
Katalog	F: Physics of Condensed Matter								f	VL/Ü									
Katalog	H: High Energy Density in Matter								f	VL/Ü									
Katalog	Q: Quantum Technology								f	VL/Ü									
Katalog	K: Nuclear Physics and Nuclear Astrophysics								f	VL/Ü									
Interdisciplinary Elective Area (Type § 30 para. 6 with unlimited change of module)									**o**		**15**								
General Studies							0%		**f**		10 bis 15								
	General catalogue of the TU Darmstadt (except General Catalogue Physics) or catalogues provided for Studium Generale.								o				7	3		5			
Elective Area Physics			bnb	M/K	30/-		0%	4	**f**		0-5								
Katalog	B: Physics and Technology of Accelerators: Courses without In-depth Lectures								f	VL/Ü									
Katalog	F: Physics of Condensed Matter: Courses without In-depth Lectures								f	VL/Ü									
Katalog	H: High Energy Density in Matter: Courses without In-depth Lectures								f	VL/Ü									
Katalog	Q: Quantum Technology: Courses without In-depth Lectures								f	VL/Ü									
Katalog	K: Nuclear Physics and Nuclear Astrophysics: Courses without In-depth Lectures								f	VL/Ü									
Research Area									**o**		**60**								
05-25-5005	Practical Introduction to Scientific Research	St		S/Pt		100%	50%		o		30						30		
05-00-5020	Master Thesis Physics *	St		Th		100%	100%		o		27							27	
05-10-5005	Oral Presentation of Master Thesis	St		Pt	30	100%	100%		o		3							3	
							Sum	29			**120**	12	12	13	13	10	30	15	15

* For the registration of the Master Thesis, the module 05-25-5005 Practical Introduction to Scientific Research must be completed

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Stand: 03.04.2024