

Masterstudiengang Synthetic Biology (M.Sc.)



TECHNISCHE
UNIVERSITÄT
DARMSTADT

Teilzeitstudien- und Prüfungsplan (5 Semester) PO 2023 ab 1.10.2023

Legende		Prüfungen										Kurs			Semester				
Bewertungs-system:	St = Standard (benotet); bnb = bestanden/nicht bestanden	Voraussetzung für Zulassung	Fachprüfung	Studienleistung	Prüfungsform	Notenverbesserung nach §30 Abs. 1a APB	Dauer (min)	Gewichtung f. Modulnote	Gewichtung f. Gesamtnote	Semesterwochenstunden (SWS)	Status	Lehrform	Anwesenheitspflicht	CP gesamt	Die Zuordnung der Prüfungen zu Semestern hat empfehlenden Charakter.				
Prüfungsform:	E=Essay, HÜ= Hausübungen, Arbeitsblätter, K = Klausur, mP= mündliche Prüfungsleistung, M/S=Mündliche/Schriftliche Prüfungsleistung mit Spezifizierung in der Modulbeschreibung, Pf = Portfolio, Pt= Präsentation, P=Protokolle, S=Schriftliche Prüfungsleistung mit Spezifizierung in der Modulbeschreibung, SF= Sonderform, Th=Thesis														Arbeitsaufwand pro Semester (CP)				
Status:	o = obligatorisch; f = fakultativ														Vollzeit				
Art der Lehrform:	VL=Vorlesung; S=Seminar; Ü=Übung; PR=Praktikum; PJ=Projekt, TT= Tutorium														Teilzeit				
Voraussetzung für Zulassung:	MHB: siehe Modulhandbuch, für diese Prüfung oder dieses Modul besteht eine Voraussetzung für die Zulassung nach §18 APB														1.	2.	3.	4.	5.
Notenverbesserungs-versuch (optional):	x = Ein Notenverbesserungsversuch nach § 30 Abs. 1a APB ist nur in der/den entsprechend mit x ausgewiesenen Prüfung/en möglich.																		
Anwesenheitspflicht:	ja = Lehrveranstaltungen mit Anwesenheitspflicht nach §11 Abs. 6 APB, ausgenommen Vorlesungen, Begründung in der Modulbeschreibung MHB = siehe Modulhandbuch, ggf. in diesem Bereich Module mit Anwesenheitspflicht																		
CP:	Leistungspunkte																		
TUCaN-Nr. und Zuordnung von CP zu Modulbausteinen haben informativen Charakter. Die Anrechnung der CPs erfolgt nach Abschluss des Moduls.																			
Compulsory Area, Advanced Design Projects for M.Sc. Synthetic Biology and Interdisciplinary courses																			
Compulsory Area																			
75																			
97																			
64																			
10-42-0001	Basics in Synthetic Biology								1	18	o			15					
10-42-0001-se	Basics in Synthetic Biology - Seminar									2	o	S							
10-42-0001-vl	Basics in Synthetic Biology - Lecture	St		K	60	25				2	o	VL							
10-42-0001-pr	Basics in Synthetic Biology - Practical course		St	P		50				12	o	PR	ja						
18-kp-3010-vl	Mathematical foundations of modeling & analysis	St		K	60	25				2	o	VL							
10-42-0002	Intercultural Skills and Project Management		bnb	Pf		100				0	4	o							
10-42-0002-pj	Intercultural Skills and Project Management - Project Seminar									4	o	PJ	ja						
10-42-0003	Current Synthetic Biology	St		Pt		100				1	4	o							
10-42-0003-vl	Current Synthetic Biology - Lecture									2	o	VL							
10-42-0003-se	Current Synthetic Biology - Seminar									2	o	S							
10-42-0004	Science Communication and Bioethic/Biosecurity		bnb	E		100				0	6	o							
02-25-2901-se	Science Communication									3	o	S							
10-42-0004-se	Bioethics and Biosecurity									3	o	S							
10-42-0005	DNA-focused Synthetic Biology	MHB				100				1	7	o							
10-42-0005-vl	DNA-focused Synthetic Biology - Lecture	St		K	60	50				1	o	VL							
10-42-0005-se	DNA-focused Synthetic Biology - Seminar									1	o	S							
10-42-0005-pr	DNA-focused Synthetic Biology - Practical Course		St	P		50				5	o	PR	ja						
10-42-0006	RNA Synthetic Biology	MHB				100				1	7	o							
10-42-0006-vl	RNA Synthetic Biology - Lecture	St		K	60	50				1	o	VL							
10-42-0006-se	RNA Synthetic Biology - Seminar									1	o	S							
10-42-0006-pr	RNA Synthetic Biology - Practical Course		St	P		50				5	o	PR	ja						
18-kp-3020	Applied computational modeling and analysis	MHB	St	Pt		100				1	6	o							
18-kp-3020-vl	Applied computational modeling and analysis									1	o	VL							
18-kp-3020-se	Applied computational modeling and analysis									5	o	S	ja						
10-42-0007	Research Internship	St		P		100				1	45	o							
10-42-0007-pr	Research Internship									45	o	PR	ja						15
Advanced Design Projects for M.Sc. Synthetic Biology (Type § 30 para. 5 APB), 1 module, min. 6 CP																			
Katalog	Advanced Design Project for M.Sc. Synthetic Biology	MHB	St	SF		100				1	7	o							
16-xx-xxxx	Advanced Design Project (Generalbeschreibung)									7	o	PJ							6
Interdisciplinary Courses (Type § 30 para. 6 APB with unrestricted change of modules)																			
General catalogue of the TU Darmstadt																			
10-42-0008	Intercultural and Project Mentoring		bnb	Pf		100				0	5	f							5
10-42-0008-se	Mentoring Skills Workshop									1	o	S	ja						1
10-42-0008-pj	Mentoring									4	o	PJ	ja						4
Elective Area (Type § 30 para. 6 APB with unrestricted change of modules) min. 1 module from each catalogue																			
Open Catalogue - Catalogue Biology																			
10-42-0210	Introduction into Immunology		St	K	60	100				1	o	f							3-12
10-42-0210-vl	Introduction into Immunology - Lecture									1	o	VL							2
10-42-0210-se	Introduction into Immunology - Seminar									1	o	S							1
10-12-0244	Immunotherapies against cancers		St	Pt	20	100				1	o	f							
10-12-0244-pj	Immunotherapies against cancers									2	o	VL							3
10-02-0202	Plant Biotechnology - Lecture	St		mP	30	100				1	o	f							
10-02-0002-vl	Plant Metabolic Engineering - Lecture									2	o	VL							3
10-42-0215	RNA Structure and Function		St	Pt	30	100				1	o	f							
10-42-0215-vl	RNA Structure and Function - Lecture									1	o	VL							1
10-42-0215-se	RNA Structure und Function - Seminar									1	o	S							2
10-42-0220	Synthetic Protein Sciences		St	K	60	100				1	o	f							
10-42-0220-vl	Synthetic Protein Sciences									2	o	VL							3
10-42-0221	Applied Immunology		St	K	60	100				1	o	f							
10-42-0221-vl	Applied Immunology - Lecture									2	o	VL							3
10-42-0105	Biomolecular Design		St	mP	20	100				1	o	f							
10-42-0105-vl	Biomolecular Design - Lecture									2	o	VL							2
10-42-0105-ue	Biomolecular Design - Exercise									1	o	Ü							1
10-42-0222	Immuno Pathology		St	Pt	20	100				1	o	f							
10-42-0222-vl	Immuno Pathology - Lecture									1	o	VL							2
10-42-0222-se	Scientific illustration on the example of immune pathologic diseases - Seminar									1	o	S							1
10-42-0227	Clinical Immunology - The House MD Seminar		St	mP	30	100				1	o	f							
10-42-0227-se	Clinical Immunology									1	o	S							3
10-12-0225	Constraint Logic Programming in Biotechnological/Biomolecular Engineering		St	HÜ		100				1	o	f							
10-12-0225-vl	Constraint Logic Programming in Biotechnological/Biomolecular Engineering - Lecture									2	o	VL							2
10-12-0225-ue	Constraint Logic Programming in Biotechnological/Biomolecular Engineering - Exercise									1	o	Ü							1
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Open Catalogue - Catalogue Engineering																			
16-17-3284	Biofabrication and 3D-Bioprinting		St	M/S	30/60	100				1	o	f							
16-17-3284-vl	Biofabrication and 3D-Bioprinting									2	o	VL							4
16-17-3294	Biomaterials and Tissue Engineering		St	M/S	30/60	100				1	o	f							
16-17-3294-vl	Biomaterials and Tissue Engineering									2	o	VL							4
16-17-3304	Tutorial Application and characterization of biomaterials		St	SF		100				1	o	f							
16-17-3304-tt	Tutorial Application and characterization of biomaterials									4	o	TT							4
16-17-3314	Tutorial 3D-bioprinting technology and its applications		St	SF		100				1	o	f							
16-17-3314-tt	Tutorial 3D-bioprinting technology and its applications									4	o	TT							4
18-bu-2030	Lab-on-Chip Systems		St	M/S	30/90	100				1	o	f							
18-bu-2030-ue	Lab-on-Chip Systems									2	o	Ü							
18-bu-2030-vl	Lab-on-Chip Systems									2	o	VL							5
18-kp-2120	Bioinformatics II		St	M/S	30/90	100				1	o	f							
18-kp-2120-vl	Bioinformatics II									2	o	VL							3
18-zo-2050	Signal Detection and Parameter Estimation		St	M/S	30/90	100				1	o	f							
18-zo-2050-se	Signal Detection and Parameter Estimation									4	o	SE							8
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MASTER THESIS																			
10-42-4000	Master-Thesis		St	Th		100				1	45	o							27
10-42-4100	Oral Presentation of Master-Thesis		St	Pt	40	100				1	o								3
Summe																			
120																			
31																			
23																			
21																			
22																			
23																			