# Master's program Biochemistry



Thielallee 63

Takustr. 6



Please contact us, if you need help or advice

### Counselling

https://www.bcp.fu-berlin.de/en/chemie/biochemie/master/counselling/index.html

Student advisor Varvara Plotnikova studbiochem@zedat.fu-berlin.de

Faculty Advisor Dr. Jens P. Fürste fuerste@zedat.fu-berlin.de

Office of Academic Affairs and Study Advisory Christiane Müller Björn Kleier studienbuero@biochemie.fu-berlin.de

#### **Examinations Office**

Janine Heinrich pruefungsbuero-biochemie@fu-berlin.de

Mentoring Jana Petri Please mail mentoring@bcp.fu-berlin.de

Erasmus Studienberatung Dr. Bernhard Loll loll@chemie.fu-berlin.de

#### **BAFöG Studienberatung**

Please send the completed form (Formblatt 5, Bafög Weiterförderung) and an up-to-date transcript of records to the Examinations Office

#### **General Academic Advising**

https://www.fu-berlin.de/en/studium/beratung/ssc/bereiche/allgemeine-studienberatung.html

#### **Psychological Counselling**

https://www.fu-berlin.de/en/sites/studienberatung/psychologische\_beratung/index.html

Due to the Covid-19 pandemic it is necessary to follow the 3G-rule for appointments in person at the SSC. So you have to be either fully faccinated, recovered or tested negatively for Covid-19 (at the the day of your appointment)

## Exemplary curriculum

Semester	Basics	Methods	Research
	and electives		
1. (30 ECTS)	Main lecture part I	Method module	Research project
	(5 ECTS)	1. field (5 ECTS)	1. field (15 ECTS)
	Elective biochemical		
	module (5 ECTS)		
2. (30 ETCS)	Main lecture part II	Method module	Research project
	(5 ECTS)	2. field (5 ECTS)	2. field (15 ECTS)
	Elective biochemical		
	module (5 ECTS)		
3. (30 ETCS)	Free elective module	Method module	Research project
	(10 ECTS)	3. or affine field (5 ECTS)	3. or affine field (15 ECTS)
4. (30 ETCS)	Master's thesis and defend	e	
	(30 ECTS)		

- Exemplary means, you can adjust!
- E.g., finish main lecture, 3 MMs and 2 RPs in semesters 1 and 2
- Could go elsewhere/abroad in 3<sup>rd</sup> semester for remaining RP, electives

G fu vv - Google Suche ×	+											-	đ	×
$\leftarrow \ \rightarrow \ \mathbf{G}$	08	https://www.	google.com/search?c	lient=firefox-b-d&q=	fu+vv				5	3			=	≡
Google		fu vv 🔺	-					×	۲)	ŵ	0 0 0 0 0 0 0 0 0	Anme	elden	
		Q Alle	News	🖬 Bilder	🛇 Maps	Shopping	: Mehr	Suchfilte	ŧ٢					l

Ungefähr 77.900.000 Ergebnisse (0,34 Sekunden)

#### https://www.fu-berlin.de > vv 💌



#### Vorlesungsverzeichnis - Freie Universität Berlin

Vorlesungsverzeichnis für das Wintersemester 2021/2022. Bitte beachten Sie, dass unser Veranstaltungsangebot kontinuierlich aktualisiert und veröffentlicht ...

#### WiSe 20/21 WiSe 20/21. Fachbereich. Studienfach. Lehrveranstaltung ...

#### Biologie, Chemie, Pharmazie

Liebe Neu-Studierende in der Biologie, Dear first semester ...

#### SoSe 21

Lehramt UDK - Politik -Geschichts - ...

#### Sommersemester 2020

Die Vorlesungszeit im Sommersemester beginnt am ...

#### Philosophie und...

Institut für Griechische und Lateinische Philologie (WE 2 ...

### Politik

Kernfach Publizistik - Kernfach Sozial - Masterstudiengang Sozial



UNIVERSITÄT STUDIUM FORSCHUNG EINRICHTUNGEN KOOPERATIONEN

 $\equiv$ 

^

Course catalog	×	+		- 0	×
$\leftarrow \rightarrow c$	7	○ A https://www.fu-berlin.de/vv/en/fb?	150%	♡ III\ E	⊡ =
	Freie Univ	ersität Berlin CATALOG	Home Contact Legal notice Ho DE   EN Subjects	elp	^
	Departm	ents  Central Institutes  Central Service Units  Other courses  Semester		-	
	Cour	21/22 ► Department ► Subject ► Course Se Catalog for 2021/22 Winter Semester	Enter a search term Combine search terms by AND Search now		
	Classe	for the 2021/22 Winter Semester start on October 18, 2021, and end on February 19, 2022.			
	Regis	tration for modules and classes			
	You ca The co	n find details about the Campus Management online system here. nplete Academic Calendar of Freie Universität Berlin can be found here.			
	Eroia Univ	rsität Parlin			

Freie Universität Berlin

ABOUT EDUCATION RESEARCH DEPARTMENTS COLLABORATION





ED

 $\bigtriangledown$ 

#### **Biochemistry**

× +

Zuletzt geändert am 29. September. **Online-Semester WiSe 2021** Die Lehre findet teilweise in Präsenz und teilweise digital statt! Bitte Angaben im **Ortsfeld** der Lehrveranstaltungen beachten. **zeitABhängig**: Die LV ...

read more 🔻

Zuletzt geändert am 1. Oktober **Orientierungseinheit Bachelorstudiengang Biochemie Achtung!** Die Termine für das WS 21/22 sind auf folgender Website veröffentlicht: ...

read more 💌

**Welcome Event for Master's Students Attention!** The orientation days for the winter semester 21/22 will be held according to the schedule on this website: ...

read more 💌

**Tombola for Method Practicals** The tombola will take place on Friday, October 15th 2021 at 10:00 a.m. as a Webex meeting. An email containing the invitation link to the meeting will be sent out. **Attention!** If you have not ...

read more 💌

General Information and Introductory Courses	210601	
Bachelor's Programme in Biochemistry	210605	
Master's programme in Biochemistry	210611	$\leftarrow$
Diploma Programme in Biochemistry (1994 study regulations)	210621	



### **Course descriptions online**

Basic Module: Introduction to Advanced Biochemistry

University/Department/Institute: Freie Universität Berlin/Department of Biology, Chemistry, Pharmacy/Institute of Chemistry and Biochemistry

Module supervisors: Lecturers of the module

Entrance Requirements: none

**Goals of Qualification:** Students have acquired the latest, structured knowledge of the research fields of structural biochemistry, molecular biology and molecular biomedicine. They are able to assess research facilities and to determine their future field of specialization.

Contents: Current developments in the research fields of structural biochemistry, molecular cell biology and molecular medicine

Teaching methods	Hours of attendance (semester periods per week)	Forms of active participation	Work effort (hours)	
Lecture	3	-	Presence (L)	45
			Pre-, post-preparation (L)	90
Seminar	1	Oral Presentation, Discussions	Presence (S) Pre- , post-preparation (S)	15 60
			Exam preparation and examination	90
Language offer of lecture	•	German and/or English		·
Compulsory regular atten	dance	Yes		
Work effort (total)		300 hours		10 CP
Length of module		one semester		
Lecture is offered		every semester		
Applicability		Master study program Bioche	mistry	

• Studienordnung: https://www.fu-berlin.de/studium/studienangebot/master/biochemie

### Winter semester 2021/22

- Theoretical courses/sections of courses (lectures, seminars, exercises, ...) online via WebEx (some instructors may use Zoom)
  - Advanced Biochemistry, parts 1 & 2
  - Literature search, research design & grant writing
  - Specialized lectures/seminars (biochemical electives) and free electives
  - Seminars of Methods Modules
  - Biochemistry colloquia/Lise Meitner colloquia (Fridays, 12:30)
- Methods Modules online or in presence (see course catalog and list online)
- Distribution of slots in Methods Modules (Tombola): Friday, 15<sup>th</sup> October 2021, 10:00 Online *via* WebEx
- Research Projects online or in presence (individual arrangements)

# Typical setup of courses offered

- Commented PDFs, voiced-over PPTs or videos in advance in Blackboard
- Students can study the material and send questions by email to the instructor (up to one day before the regular seminar/lecture)
- Video conference at the scheduled time (regular or shortened lecture/seminar and/or Q&A)
- Expect variations for each specific course or part of a course
- Each course organizer or instructor will contact participants with more specific instructions (e.g., *via* "Announcements" in Blackboard)

### Active participation and exams

- Active participation requirements will be communicated by each course organizer
- May differ for each course or part of a course
- Prospective exam dates (course catalog, Blackboard) and/or formats may change depending on the developments
- Advanced Biochemistry, parts 1 & 2, exams: Planned in presence
- Presentations/Q&A for RPs: Online via WebEx

### 1<sup>st</sup> study area: Basics

Semester	Basics and electives	Methods	Research
1. (30 ECTS)	Main lecture part I (5 ECTS)	Method module 1. field (5 ECTS)	Research project 1. <u>field</u> (15 ECTS)
	module (5 ECTS)		
2. (30 ETCS)	Main lecture part II (5 ECTS)	Method module 2. <u>field</u> (5 ECTS)	Research project 2. field (15 ECTS)
	Elective biochemical module (5 ECTS)		
3. (30 ETCS)	Free elective module	Method module	Research project
		3. or affine field (5 ECTS)	3. or affine field (15 ECTS)
4. (30 E1CS)	(30 ECTS)	e	

- Main lecture: Advanced Biochemistry, parts 1 & 2 (ABC1/2)
- Part 1 online: Fridays, 15:00 17:00
- Part 2 online: Mondays, 15:00 17:00
- Exams are scheduled 2 weeks apart
- You could take both parts but they cover a lot of ground

- Advanced Biochemistry is one course taught in two parts.
- Both parts are mandatory (but it is not mandatory that you take both parts this semester).
- It will be graded based on your results in two partial exams combined.
- You cannot pass or fail only one part (no required minimum points per partial exam)
- One improvement trial per part (up to semester 4)
- Try to finish both parts in the first 2 semesters

### 2<sup>nd</sup> study area: Methods

Semester	Basics	Methods	Research
	and electives		
1. (30 ECTS)	Main lecture part I	Method module	Research project
	(5 ECTS)	1. field (5 ECTS)	1. field (15 ECTS)
	Elective biochemical		
	module (5 ECTS)		
2. (30 ETCS)	Main lecture part II	Method module	Research project
	(5 ECTS)	2. field (5 ECTS)	2. field (15 ECTS)
	Elective biochemical		
	module (5 ECTS)		
3. (30 ETCS)	Free elective module	Method module	Research project
	(10 ECTS)	3. or affine field (5 ECTS)	3. or affine field (15 ECTS)
4. (30 ETCS)	Master's thesis and defend	ce	
	(30 ECTS)		

- Several MMs are offered (slots distributed during the Tombola)
- In most MMs it is possible to attend only the **seminar part**
- You can combine **2 such seminars to a 5-CP course** (electives)
- Contact PIs for "decentralized MM" resembles a 3-week lab rotation; well-suited to combine with a subsequent Research Project

### 2<sup>nd</sup> study area: Methods

- Methods subject areas:
  - 1. Structural Biochemistry
  - 2. Molecular Biology
  - 3. Molecular Biomedicine
- Requirements:
  - Three MMs
  - Two MMs from two different subject areas
  - Third MM from third area or a related field ("affine area")



$\blacksquare$ Information for enrolled student ×	Praktika im Hauptstudium Biochem $ imes$	+	– o ×
$\leftarrow \  \  \rightarrow \  \  \mathbf{G}$	O A https://www.bcp.fu-berlin.	de/en/chemie/biochemie/PDF/Methods-ModulesWiSe21-22b.pdf	\$
① ↑ ↓ 1 von 5		- + Automatischer Zoom 🗸	剪 🖶 🗈 🔳 🗡
	+ 1 •	he following students are entitled to participate: Master students of Biochemistry Bachelor students of Biochemistry after successful completion of all basic lab courses	
	Please	note:	
	4 li C	is important for all participants of a face-to-face lab course to be fully vaccinated against OVID-19 two weeks ahead of the event.	
	4 F	articipation in some modules requires the prior attendance of lectures or other courses.	
		ome methods modules require participation in preliminary meetings which may be long before ne start of the lab course. Please check whether this applies in the individual case.	
	4 V	when you are unable to attend a methods module, please inform the lecturer(s) immediately.	
		lethods modules with a German title from the Institute of Biology are in German language.	
	Special	note for Master students:	
	4 1 r	wo modules from two different fields have to be completed in the Methods section. The third nethods module can be chosen from the third field or, if available, from affine fields.	
	4 V	When the Methods section is completed, further methods modules count as electives.	
	↓ A a c	methods module consists of a seminar and a lab course. Usually, there are more spots vailable in a seminar than in the corresponding lab course. If a seminar is attended only, it ounts as a course in the Elective section (Special aspects of the corresponding field).	
	4 N	ou find a table of methods modules and corresponding fields on the last page of this file.	
		Distribution of Mathed Madulas (Tombola):	
		Friday, 15.10.2021 at 10:00h Online via WebEx	

Information for enrolled student×	Praktika im Hauptstudium Biochem $ imes$	+		– ø ×
$\leftarrow \  \   \rightarrow \  \   G$	O A https://www.bcp.fu-berlin.	de/en/chemie/biochemie/PDF/N	Methods-ModulesWiSe21-22b.pdf	\$
			− + Automatischer Zoom ∨	👳 🖶 🖆 📕 >>
	Metho	ds Modules of St	ructural Biochemistry	
	Course	No. 1. Appointment	Description	
	216201		Biomolecular X-ray Crystallography	
	a-c S/P		Number of participants: 6	
		Part 1: 25.10.2021	Part 1: Wahl, Loll Schedule: 25.10. – 05.11.21 Location: Takustr. 6, room 323 (Wahl group)	
		Part 2: 08.11.2021	Part 2: Weiss Important note: Pregnant and breastfeeding women are prohibited from working on the storage ring (Part 2) due to radiation protection regulations. Schedule: 08.11. – 12.11.21 Location: Soft Matter and Functional Materials, Electron Storage Ring BESSY II, Albert-Einstein-Str. 15, 12489 Berlin, Adlershof or online	
		Part 3: 15.11.2021	Part 3: Daumke Schedule: 15.11. – 19.11.21 Location: Max Delbrück Center for Molecular Medicine; Robert-Rössle-Str. 10. 13125 Berlin Buch, or online	
	216202 a, b S/P	10.01.2022	Ewers Quantitative Fluorescence Microscopy Schedule: 10.01. – 21.01.2022 (10:00; all-day) Number of participants: 6 Location: Thielallee 63, room 106a (Ewers group)	
	216211 a, b S/P	28.02.2022	Oschkinat Biological NMR Spectroscopy Schedule: 28.02. – 11.03.2022 Number of participants: 12 Location: Leibniz-Forschungsinstitut für Molekulare Pharmakologie (FMP); Robert-Rössle-Str. 10, 13125 Berlin Buch, building 81, seminar room (Ground floor)	
	216212 a, b S/P	21.02.2022	Oschkinat Biophysical Methods Schedule: 21.02. – 04.03.2022 Number of participants: 8 Location: Leibniz-Forschungsinstitut für Molekulare Pharmakologie (FMP); Robert-Rössle-Str. 10, 13125 Berlin Buch, building 81, seminar room (Ground	

 $\land$ 

Praktika im Hauptstudium Biochem 🗵 Information for enrolled student× +đ  $\times$ O A https://www.bcp.fu-berlin.de/en/chemie/biochemie/PDF/Methods-Modules---WiSe21-22b.pdf ☆ C  $\leftarrow \rightarrow$  $\odot$ ≘ ≡  $\uparrow \downarrow$ 2 von 5 — 🕂 Automatischer Zoom 🗸 <u>p</u>  $\parallel$  >> • Ċ  $\wedge$ **Special Aspects of Structural Biochemistry** 

Course No.	1. Appointment	Description
216301 S	17.01.2022	Ludwig Structural Characterisation of Supramolecular Architectures by Electron Microscopical Techniques Schedule: 17.01. – 21.01.2022 Number of participants: 2 Location: Fabeckstr. 36a, room 209 (Research Center of Electron
		Microscopy)

#### Methods Modules of Molecular Biology

Course No.	1. Appointment	Description
216402	28.03.2022	Fürste, Schröder
a, b		Nucleic Acids (Synthesis, Ribozymes, in-vitro Selection)
S/P		Schedule: 28.03. – 08.04.2022 (09:00, all-day)
		Number of participants: 6
		Location: Thielallee 63, room 001 (laboratory)

216403	14.03.2022	Schröder, Fürste	
a, b		Protein Analysis and Microsequencing	
S/P		Schedule: 14.03. – 25.03.2022 (09:30 – 17:00)	
		Number of participants: 6	
		Location: Thielallee 63, room 001 (laboratory)	
216404	01.11.2021	Weise, Kuropka	
a, b		Bioanalytical Mass Spectrometry / Proteomic Analysis	
S/P		Schedule: 01.11 12.11.2021 (09:00 - 17:00)	
		Number of participants: 4	
		Location: Thielallee 63, room 001 (laboratory)	
216405	15.11.2021	Heyd	
a,b		Alternative Splicing and Protein–RNA Interaction	
S/P		Schedule: 15.11 26.11.2021 (09:00, all-day)	
		Number of participants: 6	

Information for enrolled student × Praktika im Hauptstudium Biochemi×

 $\leftarrow \ \ \, \rightarrow \ \ \, G$ 

1

+

O A https://www.bcp.fu-berlin.de/en/chemie/biochemie/PDF/Methods-Modules---WiSe21-22b.pdf

**Methods Modules of Molecular Biomedicine** 

≣ ≡

 $\odot$ 

☆

#### <u>p</u> 🖶 Ľ

^

 $\uparrow \downarrow$ 4 von 5

LV-Nr.	1. Appointment	Description
216601 a,b S/P	21.02.2022	Knaus Cell Biology (advanced course): Signal Transduction Schedule: 21.02. – 05.03.2022 (all-day including seminar, start: 09:00) Number of participants: 6 Location: Thielallee 63, room 001 (laboratory); Seminar room 230 (lecture hall)
216602 a,b S/P	08.11.2021	Freund, Alvaro Benito Molecular Immunology Schedule: 08.11. – 19.11.2021 (all-day) Number of participants: 4 Location: Thielallee 63, room 021 (Freund group)
216613 a, b S/P	14.03.2022	Schülein, Haucke Molecular Pharmacology and Cellular Signal Transduction Schedule: 14.03. – 25.03.2022 (9:00 – 17:00) Number of participants: 16 (only 7 slots at the tombola) Location: Leibniz-Forschungsinstitut für Molekulare Pharmakologie (FMP); Robert-Rössle-Str.10. 13125 Berlin Buch
216621 a, b S/P	08.11.2021	Stricker Analyzing Musculoskeletal Development in vivo Prerequisite: Attendance of V/S 216701 a,b in a prior semester Schedule: 08.11. – 19.11.2021, all-day (9:00 – approx. 17:00; exact schedule will be communicated on first day) Number of participants: 2 Location: Thieallee 63, room 121 (Stricker group)
216623 a, b S/P	22.11.2021	Schulz Functional Genomics with CRISPR Schedule: 22.11. – 03.12.2021 (start: 09:00) Number of participants: 8 Location: Max Planck Institute for Molecular Genetics, Ihnestraße 63, 14195 Berlin: 2.212.1 (Schulz lab)

#### **Special Aspects of Molecular Biomedicine**

Praktika im Hauptstudium Biochemi× Information for enrolled student× +đ  $\sim$ ☆ O A https://www.bcp.fu-berlin.de/en/chemie/biochemie/PDF/Methods-Modules---WiSe21-22b.pdf С  $\odot$  $\equiv$   $\equiv$  $\rightarrow$  $\leftarrow$  $\wedge \downarrow \downarrow$ - + Automatischer Zoom 🗸 克 🖶 **I** >> 4 von 5 Ľ • **Special Aspects of Molecular Biomedicine** Beschreibung LV-Nr. 1. Appointment 216730 13.12.2021 Knaus, Stricker

> Schedule: 13.12. - 15.12.2021 Number of participants: 2

Growth factor signalling interplay with cell mechanics

Location: Thielallee 63, partly face-to-face, partly online

~

Modules	from	the	Institute	of	Biology

s

LV-Nr.	Titel	Spots
23301 a,b (V,S)	MOD Foundation of Critical Thinking (Tom Bielik)	2
23411 a,b (V,S)	MOD Methoden der funktionellen Genomforschung von Mikroorganismen	2
	(Haike Antelmann)	
23423 a,b.c.d (V,S)	MOD Evolutionary Medicine	4

Please note: Modules from the Institute of Biology are counted for the area of affine studies (electives) with a maximum of 10 LP (regardless of the module description)!

METHODS MODULES					
Course No	Titel	Lecturer	Strubi	Mobi	Medi
040004		Mahalah Jali Estisa			

Praktika im Hauptstudium Biochemi× +

> METHODS MODULES

Course No 216201

a,b,c 216202

a,b

a,b 216212

a,b

a,b 216403

a,b 216404

a,b

a,b 216406

a,b 216423

a,b 216451

a,b

a,b

a,b 216602

a,b

a,b

216601

216613

216621

216461/62

216405

216211

216301a.b

216402

Cell-free Systems

Signal Transduction

Signal Transduction

Analyzing Musculoskeletal

Molecular Immunology

Membrane Protein Expression in

Cell Biology (advanced course):

Production and Biophysical Analysis

of Selected Membrane Proteins Part I

Molecular Pharmacology and Cellular

Kubick

Knaus

Stricker

Schlesinger, Heberle

Freund, Alvaro Benito

Schülein, Haucke

Ľ

๓ =

 $\land$ 

#### C $\uparrow \downarrow \downarrow$ • 5 von 5

 $\rightarrow$ 

iemie/biochemie/PDF/Methods-ModulesWiSe21-22b.pdf							
—   + Au	tomatischer Zoom 🛛 👻						
Titel	Lecturer	Strubi	Mobi	Medi			
Biomolecular X-ray Crystallography	Wahl, Loll, Feiler, Weiss, Daumke	+					
Quantitative Fluorescence Microscopy	Ewers	+	+	+			
Biological NMR Spectroscopy	Oschkinat	+					
Biophysical Methods	Oschkinat	+					
Structural Characterizationby Electron Microscopical Techniques	Ludwig	+					
Nucleic Acids	Fürste, Schröder		+	+			
Protein Analysis and Microsequencing	Weise, Schröder		+				
Bioanalytical Mass Spectrometry / Proteomic Analysis	Weise	+	+				
Alternative Splicing and Protein–RNA Interaction	Heyd		+	+			
Gene editing with CRISPR/Cas 9 for Cell Biology	Bottanelli		+	+			
Quantitative Transcriptomics	Mayer		+	+			

+

+

+

+

-

+

+

+

+

+

+

+

ж.

Registration MM WS2122.pdf - Adobe Acrobat Pro DC (32-bit)						đ	×
atei Bearbeiten Anzeige Elektronische Signaturen Fenster Hilfe							
Start Werkzeuge Registration MM W ×				?	🌲 Anr	nelde	en
🖺 🕁 🗘 🖶 🔍 💮 🔍	) 1 / 1 🕨 🖑 (		🛡 🖉 🖉		<i>2</i>	$\ge$	6
	<b>Registration for</b>	Method modules – WS 21	/22			^	Q
							Pa
Last nam	ne:						
First nar	ne:						4
Student	ID number:						₽
Phone (o	optional):						Po
E-Mail:		@zedat.fu-berlin.de					ĔΠ
1 <sup>st</sup> Prio	ority:						Lø
	-						Ş
Course	number:						<u>l</u> u
For MSc	BC: Please choose (no field necessa	the <b>type of course</b> and the desired <b>fie</b> l ry for electives)	ld			•	i Piùi Luci
Course:	O methods	O special aspects O electives					Ū
Field:	□ StruBi	□ MoBi □ Medi	🗆 Affi				10
2 <sup>nd</sup> Pri	ority:						
Course	number:						
For MSc	BC: Please choose (no field necessa	the <b>type of course</b> and the desired <b>fie</b> l ry for electives)	ld				
Course:	O methods	O special aspects O electives					
Field	□ StruBi	🗆 MoBi 🛛 🗖 Medi	□ Affi				

Г

### Tombola

- Mail the form as a PDF FILE to <u>forumbiochem@zedat.fu-berlin.de</u> before Wednesday (October 13<sup>th</sup>) 22:00 h
- The tombola will start on Friday (October 15<sup>th</sup>) at 10:00 h

https://fu-berlin.webex.com/fu-berlin/j.php?MTID=mfaeebf173e318ae782a9e7dfff303d2e

🛁 Biochemie (Masterstudiengang 🗙

 https://www.bcp.fu-berlin.de/studium-lehre/verwaltung/studienbuero/studienbuero\_che

+

🖃 Corona-Update: Aktuelle Inform 🗙

... 🖂 🕁 🔰

Weitere Lesezeichen

05/04/2021

Ð

Х

비 🐨 🛡 폰 🛎 😑

🌣 Meistbesucht 🛛 💩 Erste Schritte 🛛 🛅 laptop-related

#### English Version:

While limitations due to the SARS-CoV-2 pandemic are in place, we allow to conduct Methods Modules in a "decentralized" fashion. Master students can arrange Methods Modules individually with research labs. These Methods Modules resemble 5 LP Research Projects, but they should be planned in a way that the student will have hands-on exposure to a broad range of methods used in the research lab they apply to. You have to find a lab that is willing to host you for such a Methods Module and apply to the Pruefungsbuero using the relevant form available online at least two weeks before the planned start date. To increase chances that labs will host you for such "decentralized" Methods Courses, it may help if you plan such a course as a prelude to a longer Research Project or Master's thesis in the same lab.

Please note the rules for active participation (see form): Besides the lab work for the methods module, active participation involves regular participation in the research seminar of the hosting group, a final presentation of about 30 minutes duration in this seminar and the keeping of a lab notebook according to common scientific standards. The lab notebook will remain with the host group. The supervisor has to confirm the active participation on the certificate of performance ("Leistungsnachweis"; pdf scan via email to the Examination Office).

### You have to apply for a "decentralized" Methods Module

https://www.bcp.fu-berlin.de/studiumlehre/verwaltung/studienbuero/studien buero\_chemie/CORONA

∧ Ĝ 🖬 🤅 ጚ×

ବ୍ତ

Benotete Forschungsprojekte mit 15 Leistungspunkten

<u>D</u> atei <u>B</u> earbeiten <u>A</u> nsicht <u>C</u> hroni	k <u>L</u> esezeichen E <u>x</u> tras <u>H</u> ilfe	-	ð	$\times$
FREIE UNIVERSITÄT BERLIN 12165 B	× +			
$\leftrightarrow$ > C $rac{1}{2}$	🗊 🗈 file:///C:/Users/mwahl/AppData/Local/Temp/07_Formular_Anmeldung-dezentrales-Methodenn 🚥 😒 🏠 🖳 🛃	<ul><li>会</li></ul>	۲	Ξ
🌣 Meistbesucht 🛛 🍯 Erste Schritte	e 🛅 laptop-related	🚞 Weitere	Lesezeio	chen
	3 — + Automatischer Zoom •	ç 🖶 C	3	>>
	Antrag zur Genehmigung / Anmeldung eines dezentralen 5 LP Methodenmoduls In Anlehnung an ein unbenotetes 5 LP Forschungsprojekt im Masterstudiengang Biochemie Name, Vorname:			
	Name, first name       Student ID         Tel.:       ZEDAT E-Mail:       @zedat.fu-berlin.de         Geplante experimentelle Techniken (Methodenmodulcharakter)   Planned experimental techniques (methods module-like):       1			
	<ul> <li><sup>1</sup></li> <li><sup>2</sup></li> <li><sup>3</sup>.</li> <li><sup>4</sup>.</li> <li><sup>5</sup>.</li> <li><sup>6</sup></li> </ul>			
	Dauer   <i>Duration</i> : 3 Wochen Laborarbeit plus 1 Woche Vor-/Nachbereitung   3 weeks lab work plus 1 week preparation/post-processing Beginn/Ende des Methodenmoduls   <i>Start/end dates for the methods module</i> : Betreuer/in des Methodenmoduls; Name, E-Mail, Arbeitsanschrift   <i>Supervisor of the methods module; name, e-Mail, work address</i> : Wichtig! Professoren, Privatdozenten, Habilitierte mit Lehrauftrag an der FU Berlin und vom Prüfungsausschuss zugelassene Personen können Methodenmodule betreuen. Der/die Betreuer/in muss vor Beginn des Moduls vom/von der PA-Vorsitzenden zugelassen werden. Important! Professors, "Privatdozenten", lecturers with a teaching assignment at the FU Berlin and individuals approved by the examination			
■ <i>P</i> O III	committee can be supervisors of a methods module. The supervisor has to be approved before the start of the project. $\bigcirc \bigcirc $	NG 23:43 DE 05/04/2 <sup>,</sup>	021 <b>E</b>	<b>,</b>

## 3<sup>rd</sup> study area: Research

Semester	Basics	Methods	Research
	and electives		
1. (30 ECTS)	Main lecture part I	Method module	Research project
	(5 ECTS)	1. field (5 ECTS)	1. field (15 ECTS)
	Elective biochemical		
	module (5 ECTS)		
2. (30 ETCS)	Main lecture part II	Method module	Research project
	(5 ECTS)	2. field (5 ECTS)	2. field (15 ECTS)
	Elective biochemical		
	module (5 ECTS)		
3. (30 ETCS)	Free elective module	Method module	Research project
	(10 ECTS)	3. or affine field (5 ECTS)	3. or affine field (15 ECTS)
4. (30 ETCS)	Master's thesis and defend	e .	
	(30 ECTS)		

- Contact the PI of the lab, in which you would like to do a Research Project
- 15 CP: 9 weeks of lab work + 3 weeks of preparation (pre and post)
- Can be discontinuous (if PI agrees)
- Active participation: lab book, group seminar, written report
- Graded based on a presentation with Q&A

### 3<sup>rd</sup> study area: Research

- Research subject areas:
  - 1. Structural Biochemistry
  - 2. Molecular Biology
  - 3. Molecular Biomedicine
- Requirements:
  - Three 15-CP graded RPs
  - Two of these from two different subject areas
  - Third RP from third area or a related field ("affine area")





<u>D</u> atei <u>B</u> earbeiten <u>A</u> nsicht <u>C</u> hronik	<u>L</u> esezeichen E <u>x</u> tras <u>H</u> ilfe	—	đ	þ	$\times$
FREIE UNIVERSITÄT BERLIN 12165 B	< +				
$\leftarrow$ $\rightarrow$ C $rac{1}{2}$	🗊 🗈 file:///C:/Users/mwahl/AppData/Local/Temp/01_Forschungsprojekt-benotet_Antrag-vollstaend 🚥 😒 🏠 🖳 🛃	٢	金	۲	≡
🌣 Meistbesucht 🛛 🍯 Erste Schritte	aptop-related	🗁 W(	eitere Le	esezeic	hen
↑ ↓ 5 von	- + Automatischer Zoom ·	Ņe	Ľ		»
	Guidelines Active Participation and Oral Exam Graded Research Project (15 LP)         Students in the Master program Biochemistry enroll in three research projects worth 15 LP (at least 360 hours project work, 450 hours total). For the successful completion of a research project, students have to document their active participation and have to pass an exam after completion of the practical work.         Active participation         Besides the lab work for the research project, active participation involves regular participation in the re- cessed complete of a lab pretence in active participation in the re- cessed complete of the basies group and the kenning of a lab pretence in active participation in the re- provement of the basies group and the kenning of a lab pretence in active participation in the re- provement of the basies group and the kenning of a lab pretence in active participation in the re- provement of the basies group and the kenning of a lab pretence in a termina in a group of the present in the present of the basies of a lab pretence in a termina in the re- provement of the basies of the basies of the basies of a lab pretence in a termina in the re- provement of the basies of the basies of the basies of the basies of a lab pretence in a termina in the re- terminant of the basies of				^
	standards. The lab notebook will remain with the host group. In addition, students have to compose a <b>short</b> written report (about 5 pages) according to the attached format, which they have to hand in to the supervisor and send in digital form to the examination office. The supervisor has to confirm the active participation on the certificate of performance ("Leistungsnachweis").				

The exam consists of an **oral presentation** (duration about 15 - 30 minutes), which the student gives in front of the host group, and a following **defense** in front of the supervisor (or another person who is officially eligible as an examiner) and a minute taker (duration about 30 minutes). The person giving the exam must be officially entitled to be an examiner. Professors, "Privatdozenten", lecturers with a teaching assignment at the FU Berlin and individuals approved by the examination committee are automatically entitled to give exams. In exceptional cases, other persons can be declared eligible as examiners (please address corresponding questions to the

ENG

DE

Ę

05/04/2021

^ @ 🖮 🦟 ⊄× 😻

EN



Literature search, research design & grant writing (216881 a/b)

- Can replace one 15-CP Research Project
- Two parts (5 CP and 10 CP)
- Your performance during the first part decides whether you can continue with the second part

# Literature search, research design & grant writing (216881 a/b)

Identify a relevant research problem (critical literature search) Develop it into a PhD thesis project (frame specific questions, assess feasibility) Describe it coherently according to a template (an exercise in scientific writing)

216881a

All in Blackboard/online

Lectures and individual meetings with your mentor

Written summary of your project

### 216881b

Write a research proposal

Peer review one proposal

## 4<sup>th</sup> study area: Electives

Semester	Basics	Methods	Research
	and electives		
1. (30 ECTS)	Main lecture part I	Method module	Research project
	(5 ECTS)	1. field (5 ECTS)	1. field (15 ECTS)
	Elective biochemical		
	module (5 ECTS)		
2. (30 ETCS)	Main lecture part II	Method module	Research project
	(5 ECTS)	2. field (5 ECTS)	2. field (15 ECTS)
	Elective biochemical		
	module (5 ECTS)		
3. (30 ETCS)	Free elective module	Method module	Research project
	(10 ECTS)	3. or affine field (5 ECTS)	3. or affine field (15 ECTS)
4. (30 ETCS)	Master's thesis and detenc	e	
	(30 ECTS)		

- Biochemistry Colloquia/Lise Meitner Colloquia (Friday, 12:30 13:30)
- Online *via* WebEx
- Participation in 15 colloquia counts as a 2.5-CP partial course
- Can combine, e.g., with one MM seminar to a 5-CP course
- Documentation of participation: WebEx meeting protocol (join with identifiable name)



### 4<sup>th</sup> study area: Electives

- It is possible to import 15 CPs from the Biochemistry Bachelor's program as electives:
  - Bioinformatik
  - Biostatistik
  - Evolution
  - Bioethik
  - Berufsorientierung
  - Only offered in German!

### Registering for courses

- Individually through Campus Management
- Plan judiciously what you can manage
- Avoid "hoarding" of courses

### Be flexible and creative

- Apply for Research Projects well ahead of the planned start date.
- Several graded 15-CP research projects can be done in the same group and their contents can be closely related.
- Ungraded 5/10-CP research projects can also be combined with a graded 15-CP research project.
- "Decentralized" Method Modules can be carried out in the form of a short Research Project and can be combined with a Research Project.
- "Decentralized" Method Modules and Research Projects can be followed by a Master's thesis in the same lab.

### Be flexible and creative

- We are open to accept equivalent courses taken elsewhere
- We are prepared to accept suitable online courses as equivalent
- Check before enrolling in a course!
- Detailed info on the course and suggested equivalent to Examinations Office

Possible schedules if contact is restricted again or if you presently want/have to avoid contacts

- Advanced BC parts 1 <u>and</u> 2
   MM or RP in lecture-free time (15-25 LPs)
- Advanced BC part 1 or 2 Literature search, research design & grant writing MM or RP in lecture-free time (25-35 LPs)
- Advanced BC part 1 or 2
   2 MM seminars
   Specialized lecture/seminar
   MM or RP in lecture-free time (20-30 LPs)

### Questions?

- Via email to any faculty member
- Via email to Examinations Office
- Via email to FSI
- *Via* email to Varvara Potnikova (Student Advisor)
- Via email to Jens P. Fürste (Faculty Advisor)
- Only ask one at a time and allow some response time
- Only use Zedat account for university matters



### Many thanks to ...

- FSI (consider joining!)
- Student tutors and advisors
- Susanne Jäger (Central Administration Biochemistry)
- Janine Heinrich (Examinations Office)
- Christiane Müller, Björn Kleier (Office of Academic Affairs)
- Thorsten Grospietsch (Academic Studies and Teaching)