

# MSc Biochemistry



# Exemplary curriculum

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





## VORLESUNGSVERZEICHNIS

Fachbereiche ▾

Zentralinstitute ▾

Zentraleinrichtungen ▾

Weitere Angebote ▾

Semester ▾

WiSe 20/21 ▶

Fachbereich ▶

Studienfach ▶

Lehrveranstaltung

### Vorlesungsverzeichnis für das Wintersemester 2020/2021

Bitte beachten Sie, dass unser Veranstaltungsangebot kontinuierlich aktualisiert und veröffentlicht wird, um den aktuellen Bedingungen Rechnung zu tragen!

Die Vorlesungszeit im Wintersemester beginnt am 02.11.2020 und endet am 27.02.2021.

#### Anmeldung zu Modulen und Lehrveranstaltungen

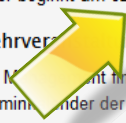
Details zur Anmeldung über Campus M... finden Sie [hier](#).

Den vollständigen Akademischen Terminplan der Freien Universität finden Sie [hier](#).

Suchbegriff eingeben

☐ Suchbegriffe mit UND verbinden

Suche starten



## VORLESUNGSVERZEICHNIS

Fachbereiche ▾

Zentralinstitute ▾

Zentraleinrichtungen ▾

Weitere Angebote ▾

Semes



Allgemeine Berufsvorbereitung  
Biologie, Chemie, Pharmazie  
Dahlem School of Education (Zentrum für Lehrerbildung)  
Erziehungswissenschaft und Psychologie  
Geowissenschaften  
Geschichts- und Kulturwissenschaften  
Mathematik und Informatik  
Philosophie und Geisteswissenschaften  
Physik  
Politik- und Sozialwissenschaften  
Rechtswissenschaft  
Veterinärmedizin  
Wirtschaftswissenschaft

Lehrveranstaltung

**Erstsemester students of the biology**  
dem Institut willkommen zu heißen. Sie  
s ...

ungen und Einschränkungen von  
als weitere Informationen, werden auf einer

zentralen Website veröffentlicht. Bitte ...

[Lesen Sie weiter ▾](#)

Die Angaben zur Platzzahlbeschränkung an den einzelnen Lehrveranstaltungen (LVen) sind aus technischen Gründen teils irrelevant. Es muss davon ausgegangen werden, dass alle Seminare, Praktika, Übungen und teils auch Vorlesungen in der ...

[Lesen Sie weiter ▾](#)

**Liebe Erstsemester-Studis in den Bachelor-Studiengängen am 26. Oktober** starten die Orientierungs-Tage. Wir haben am **21. Oktober eine Mail** an alle zu dem Zeitpunkt erfolgreich immatrikulierten Studis geschickt. Falls ...

[Lesen Sie weiter ▾](#)



## Biochemie

Zuletzt geändert am 13. August **Online-Semester WiSe 20/21** Die Lehre findet hauptsächlich digital statt! **Die Vorlesungszeit beginnt erst am 02. November 2020** Im Ortsfeld finden sie die Angaben zeitABhängig oder ...

[Lesen Sie weiter](#) ▼

Zuletzt geändert am 13. August. **Orientierungseinheit Bachelorstudiengang Biochemie**  
**Achtung!** Die Orientierungseinheiten werden im WS 20/21 online stattfinden. Genauere Informationen werden auf folgender Wbsite ...

[Lesen Sie weiter](#) ▼

Zuletzt geändert am 13. August. **Zusätzliche Infoveranstaltung für den Masterstudiengang Biochemie** **Achtung!** Die Orientierungseinheit für das WS 20/21 wird online stattfinden. Weitere Informationen werden hier ...

[Lesen Sie weiter](#) ▼

Zuletzt geändert am 21. Oktober  
**Vergabe der Praktikumsplätze ("Tombola")**

Die Tombola wird am Freitag, den 30. Oktober um 9 Uhr als WebEx Meeting stattfinden. Eine Mail mit dem Einalsundlonk wurde nun versandt.

[Allgemeine Informationen und Einführungsveranstaltungen](#)

210601

[Bachelorstudiengang Biochemie \(Mono\)](#)

210605

[Masterstudiengang Biochemie \(Mono\)](#)

210611

[Diplomstudiengang Biochemie \(Studienordnung 1994\)](#)

210621

[Lehrveranstaltungen für andere Studiengänge](#)

210671

[Colloquien und wissenschaftliches Arbeiten](#)

210681

[Weitere Veranstaltungen](#)

210691



# Course descriptions online

<b>Basic Module:</b> Introduction to Advanced Biochemistry			
<b>University/Department/Institute:</b> Freie Universität Berlin/Department of Biology, Chemistry, Pharmacy/Institute of Chemistry and Biochemistry			
<b>Module supervisors:</b> Lecturers of the module			
<b>Entrance Requirements:</b> none			
<b>Goals of Qualification:</b> 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.			
<b>Contents:</b> 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) 15 Pre-, post-preparation (S) 60  Exam preparation and examination 90
<b>Language offer of lecture</b>		German and/or English	
<b>Compulsory regular attendance</b>		Yes	
<b>Work effort (total)</b>		300 hours	10 CP
<b>Length of module</b>		one semester	
<b>Lecture is offered</b>		every semester	
<b>Applicability</b>		Master study program Biochemistry	

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

# Winter semester 2020/21

- No contact lectures during the lecture time (->online)
- Method Modules, Research Projects are possible. Please attend the Tombola on Friday!
- We will offer now:
  - Advanced BC parts 1 & 2
  - Method Modules are planned but we have to be flexible and react to current situation at the scheduled time
  - Contact PIs directly for Research Projects
  - Grant Writing Module
  - Specialized lectures/seminars (electives)
  - Friday Biochemistry Colloquia/Lise Meitner Colloquia



# Typical setup of lectures

- Commented PDFs, voiced-over PPTs or videos in advance in Blackboard
- Video conference at the scheduled time (regular lecture/seminar or Q/A)
- **Expect variations for each specific course**
- Each organizer will contact participants (Blackboard) with more specific instructions

# Active participation and exams

- Active participation requirements will be communicated by each course organizer
- May differ for each course and for different parts of a Module
- Exams: Prospective dates (Course Catalog) and/or formats may change depending on the developments

# Basics

Semester	Basics and electives	Methods	Research
1. (30 ECTS)	Main lecture part I (5 ECTS) Elective biochemical module (5 ECTS)	Method module 1. field (5 ECTS)	Research project 1. field (15 ECTS)
2. (30 ECTS)	Main lecture part II (5 ECTS) Elective biochemical module (5 ECTS)	Method module 2. field (5 ECTS)	Research project 2. field (15 ECTS) <sup>8</sup>
3. (30 ECTS)	Free elective module (10 ECTS)	Method module 3. or affine field (5 ECTS)	Research project 3. or affine field (15 ECTS)
4. (30 ECTS)	Master's thesis and defence (30 ECTS)		

- 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 with two parts**.
- Both parts are mandatory (but it is not mandatory that you take both parts this semester).
- It will be graded based on results in two partial exams combined.

# Methods

Semester	Basics and electives	Methods	Research
1. (30 ECTS)	Main lecture part I (5 ECTS)	Method module 1. field (5 ECTS)	Research project 1. field (15 ECTS)
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- Some MMs are scheduled (-> Tombola)
- In some MMs it is possible to only attend the **seminar part**
- You can combine **2 such seminars to a 5-LP course** (electives)
- Contact PIs for 'individual MM' – 3 week lab rotation can count as a MM, for example in combination with a Research project

# Methods

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



# Research

Semester	Basics and electives	Methods	Research
1. (30 ECTS)	Main lecture part I (5 ECTS)	Method module 1. field (5 ECTS)	Research project 1. field (15 ECTS)
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- Contact the PI of the lab where you would like to perform a research project
- 9 weeks of lab work + 3 weeks of preparation (pre and post)
- Graded based on a presentation with Q+A
- You have to write a report

# Research

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

# Literature Search, Research Design & Grant Writing (216881 a/b)

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



# Literature Search, Research Design & Grant Writing (216881 a/b)

Identifying a relevant research problem  
(critical literature search)



Developing it into a PhD thesis project  
(framing specific questions, feasibility)



Describing it coherently in words  
(an exercise in scientific writing)

## **216881a (5 LP)**

All in BlackBoard

Lectures / individual meetings with  
your mentor

Summary of your project

## **216881b (10 LP)**

Write a research proposal

Peer review one proposal

# Electives

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- Free electives: Virtually any course offered by a University
- You can choose biochemical courses for both types of electives
- **Combined seminars** of 2 Methods Modules (“Specific aspects ...”)
- **Special lectures/seminars** offered by FUB Biochemistry (Course Catalog)

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- **Friday Biochemistry Colloquia/Lise Meitner Colloquia (12:30 – 13:30)**
- As video conferences
- Participation in 15 colloquia counts as a 2.5-LP course
- Documentation of participation will be communicated by organizers

# Electives

- It is possible to import 15 CPs from BSc Biochemistry as electives:
  - Bioinformatik
  - Biostatistik
  - Evolution
  - Bioethik
  - Berufsorientierung
  - Only offered in German!

Before investing in a course elsewhere, make sure we will accept this course as an equivalent to one of our core courses or as an elective (email with detailed info on the course and suggested equivalent to the Prüfungsbüro).

# Registering for courses

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



# Possible schedules

- Advanced BC parts 1 and 2  
MM and RP\* (30 LPs)
- Advanced BC part 1 or 2  
Literature Search and Research Design  
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)

\* if possible

# Questions?

- *Via* email to a faculty member
- *Via* email to Examination Office
- *Via* email to FSI
- *Via* email to Fiona Douglas (Studienberatung)
- **Only ask one at a time and allow some days of response time!**

# Many thanks to ...

- FSI (**consider joining!**)
- Charlotte Biese, Nasrin Bollmor, Fiona Douglas, Marius Göbel, Shelly Harel, Leon Obendorf, Justus Wollburg
- Susanne Jäger (Sekretariat Biochemie)
- Christiane Müller (Studienbüro)
- Thorsten Grospietsch (Studium und Lehre)