Master’s program Biochemistry

Thielallee 63
Takustr. 6
Please contact us, if you need help or advice
Counselling

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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

Psychological Counselling

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 vaccinated, recovered or tested negatively for Covid-19 (at the the day of your appointment)
Exemplary curriculum

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

- 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 3rd semester for remaining RP, electives
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 - ...

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

Sommersemester 2020
Die Vorlesungszeit im Sommersemester beginnt am ...

Politik
Kernfach Publizistik - Kernfach
Sozial - Masterstudiengang Sozial
Vorlesungsverzeichnis für das Wintersemester 2021/2022

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

Anmeldung zu Modulen und Lehrveranstaltungen
Details zur Anmeldung über Campus Management finden Sie hier.
Den vollständigen Akademischen Terminkalender der Freien Universität finden Sie hier.
Course Catalog for 2021/22 Winter Semester

Classes for the 2021/22 Winter Semester start on October 18, 2021, and end on February 19, 2022.

Registration for modules and classes

You can find details about the Campus Management online system [here](#).
The complete Academic Calendar of Freie Universität Berlin can be found [here](#).
Biology, Chemistry, and Pharmacy

Immatrikulationsfeier am Fachbereich Biologie, Chemie, Pharmazie für die neuen Bachelor- und Staatsexamensstudierenden der Fächer Biochemie, Biologie, Chemie, Pharmazie. Die Veranstaltungsdaten sind: 14.10. 18.00-19.00 (Hybride ...

Biology

Auch für WS21/22 geltend! Corona-Epidemie: Alle die Biologie betreffenden Änderungen und Einschränkungen von Lehrveranstaltungen und Prüfungen, sowie gegebenenfalls weitere Informationen, werden auf einer zentralen Website ...
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

Bachelor's Programme in Biochemistry

Master's programme in Biochemistry

Diploma Programme in Biochemistry (1994 study regulations)
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

Grundmodul: Einführung in die fortgeschrittene Biochemie (10 LP)

Schedule: Lecture: Friday, 15:00 - 16:30 h Seminar: Friday, 18:30 - 17:00 h (Class starts on: 2021-10-22)
Location: Takustr. 6, Hs Kristallographie und/oder Online zeitABhängig

216101c LECTURE
Course descriptions online

<table>
<thead>
<tr>
<th>Basic Module: Introduction to Advanced Biochemistry</th>
</tr>
</thead>
<tbody>
<tr>
<td>University/Department/Institute: Freie Universität Berlin/Department of Biology, Chemistry, Pharmacy/Institute of Chemistry and Biochemistry</td>
</tr>
<tr>
<td>Module supervisors: Lecturers of the module</td>
</tr>
<tr>
<td>Entrance Requirements: none</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>Contents: Current developments in the research fields of structural biochemistry, molecular cell biology and molecular medicine</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching methods</th>
<th>Hours of attendance (semester periods per week)</th>
<th>Forms of active participation</th>
<th>Work effort (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>3</td>
<td>-</td>
<td>Presence (L) 45</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre-, post-preparation (L) 90</td>
</tr>
<tr>
<td>Seminar</td>
<td>1</td>
<td>Oral Presentation, Discussions</td>
<td>Presence (S) 15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre-, post-preparation (S) 60</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Exam preparation and examination 90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Language offer of lecture</th>
<th>German and/or English</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Compulsory regular attendance</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work effort (total)</td>
<td>300 hours</td>
</tr>
<tr>
<td>Work effort (total)</td>
<td>10 CP</td>
</tr>
<tr>
<td>Length of module</td>
<td>one semester</td>
</tr>
<tr>
<td>Lecture is offered</td>
<td>every semester</td>
</tr>
<tr>
<td>Applicability</td>
<td>Master study program Biochemistry</td>
</tr>
</tbody>
</table>

- 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, 15th 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
1st study area: Basics

<table>
<thead>
<tr>
<th>Semester</th>
<th>Basics and electives</th>
<th>Methods</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. (30 ECTS)</td>
<td>Main lecture part I (5 ECTS)</td>
<td>Method module 1. field (5 ECTS)</td>
<td>Research project 1. field (15 ECTS)</td>
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<td></td>
<td>Elective biochemical module (5 ECTS)</td>
<td></td>
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</tr>
<tr>
<td>2. (30 ECTS)</td>
<td>Main lecture part II (5 ECTS)</td>
<td>Method module 2. field (5 ECTS)</td>
<td>Research project 2. field (15 ECTS)</td>
</tr>
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<td></td>
<td>Elective biochemical module (5 ECTS)</td>
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<td>3. (30 ECTS)</td>
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</tbody>
</table>

- 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.
2nd study area: Methods

- 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

<table>
<thead>
<tr>
<th>Semester</th>
<th>Basics and electives</th>
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<td>Main lecture part II (5 ECTS)</td>
<td>Method module 2. field (5 ECTS)</td>
<td>Research project 2. field (15 ECTS)</td>
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</table>
2\textsuperscript{nd} 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")
Information for enrolled students

Please find the guideline for your master studies [here](https://www.bcp.fu-berlin.de/en/chemie/biochemie/master/Information-for-enrolled-students/index.html).

The presentation to the master's studies is [here](https://www.bcp.fu-berlin.de/en/chemie/biochemie/master/Information-for-enrolled-students/index.html).

You find a summary of the available methods modules [here](https://www.bcp.fu-berlin.de/en/chemie/biochemie/master/Information-for-enrolled-students/index.html).

A calendar with the respective dates can be found [here](https://www.bcp.fu-berlin.de/en/chemie/biochemie/master/Information-for-enrolled-students/index.html).

The form for attendance of Lise-Meitner-Kolloquia is available [here](https://www.bcp.fu-berlin.de/en/chemie/biochemie/master/Information-for-enrolled-students/index.html).
The following students are entitled to participate:
- Master students of Biochemistry
- Bachelor students of Biochemistry after successful completion of all basic lab courses

Please note:
- It is important for all participants of a face-to-face lab course to be fully vaccinated against COVID-19 two weeks ahead of the event.
- Participation in some modules requires the prior attendance of lectures or other courses.
- Some methods modules require participation in preliminary meetings which may be long before the start of the lab course. Please check whether this applies in the individual case.
- When you are unable to attend a methods module, please inform the lecturer(s) immediately.
- Methods modules with a German title from the Institute of Biology are in German language.

Special note for Master students:
- Two modules from two different fields have to be completed in the Methods section. The third methods module can be chosen from the third field or, if available, from affine fields.
- When the Methods section is completed, further methods modules count as electives.
- A methods module consists of a seminar and a lab course. Usually, there are more spots available in a seminar than in the corresponding lab course. If a seminar is attended only, it counts as a course in the Elective section (Special aspects of the corresponding field).
- You find a table of methods modules and corresponding fields on the last page of this file.

Distribution of Method Modules (Tombola):
Friday, 15.10.2021 at 10:00h
Online via WebEx
<table>
<thead>
<tr>
<th>Course No.</th>
<th>1. Appointment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>216201</td>
<td></td>
<td>Biomolecular X-ray Crystallography</td>
</tr>
<tr>
<td>a-c</td>
<td>Part 1: 25.10.2021</td>
<td>Number of participants: 6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Schedule: 25.10. – 05.11.21</td>
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<tr>
<td></td>
<td></td>
<td>Location: Takustr. 6, room 323 (Wahl group)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Part 2: Weiss</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Important note: Pregnant and breastfeeding women are prohibited from</td>
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<tr>
<td></td>
<td></td>
<td>working on the storage ring (Part 2) due to radiation protection regulations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Schedule: 08.11. – 12.11.21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Location: Soft Matter and Functional Materials, Electron Storage Ring BESSY II, Albert-Einstein-Str. 15, 12489 Berlin, Adlershof or online</td>
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<tr>
<td></td>
<td>Part 3: 15.11.2021</td>
<td>Part 3: Daumke</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Schedule: 15.11. – 19.11.21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Location: Max Delbrück Center for Molecular Medicine; Robert-Rössle-Str. 10, 13125 Berlin Buch, or online</td>
</tr>
<tr>
<td>216202</td>
<td>10.01.2022</td>
<td>Ewers Quantitative Fluorescence Microscopy</td>
</tr>
<tr>
<td>a, b</td>
<td></td>
<td>Number of participants: 6</td>
</tr>
<tr>
<td>S/P</td>
<td></td>
<td>Schedule: 10.01. – 21.01.2022 (10:00; all-day)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Location: Thielallee 63, room 106a (Ewers group)</td>
</tr>
<tr>
<td>216211</td>
<td>28.02.2022</td>
<td>Oschkinat Biological NMR Spectroscopy</td>
</tr>
<tr>
<td>a, b</td>
<td></td>
<td>Number of participants: 12</td>
</tr>
<tr>
<td>S/P</td>
<td></td>
<td>Schedule: 28.02. – 11.03.2022</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Location: Leibniz-Forschungsinstitut für Molekulare Pharmakologie (FMP); Robert-Rössle-Str. 10, 13125 Berlin Buch, building 81, seminar room (Ground floor)</td>
</tr>
<tr>
<td>216212</td>
<td>21.02.2022</td>
<td>Oschkinat Biophysical Methods</td>
</tr>
<tr>
<td>a, b</td>
<td></td>
<td>Number of participants: 8</td>
</tr>
<tr>
<td>S/P</td>
<td></td>
<td>Schedule: 21.02. – 04.03.2022</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Location: Leibniz-Forschungsinstitut für Molekulare Pharmakologie (FMP); Robert-Rössle-Str. 10, 13125 Berlin Buch, building 81, seminar room (Ground floor)</td>
</tr>
</tbody>
</table>
## Special Aspects of Structural Biochemistry

<table>
<thead>
<tr>
<th>Course No.</th>
<th>1. Appointment</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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: Fabekstr. 36a, room 209 (Research Center of Electron Microscopy) |

## Methods Modules of Molecular Biology

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

| Course No. | 14.03.2022 | Schröder, Fürste  
Protein Analysis and Microsequencing  
Schedule: 14.03. – 25.03.2022 (09:30 – 17:00)  
Number of participants: 6  
Location: Thielallee 63, room 001 (laboratory) |

| Course No. | 01.11.2021 | Weise, Kuroppka  
Bioanalytical Mass Spectrometry / Proteomic Analysis  
Schedule: 01.11. – 12.11.2021 (09:00 – 17:00)  
Number of participants: 4  
Location: Thielallee 63, room 001 (laboratory) |

| Course No. | 15.11.2021 | Heyd  
Alternative Splicing and Protein–RNA Interaction  
Schedule: 15.11. – 26.11.2021 (09:00, all-day)  
Number of participants: 6 |
## Methods Modules of Molecular Biomedicine

<table>
<thead>
<tr>
<th>LV-Nr.</th>
<th>1. Appointment</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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: Thielallee 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, Ihnstraße 63, 14195 Berlin; 2.212.1 (Schulz lab) |

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

<table>
<thead>
<tr>
<th>LV-Nr.</th>
<th>1. Appointment</th>
<th>Beschreibung</th>
</tr>
</thead>
</table>
| 216730 | 13.12.2021     | Knaus, Stricker  
Growth factor signalling interplay with cell mechanics  
Number of participants: 2  
Location: Thielallee 63, partly face-to-face, partly online |

Modules from the Institute of Biology

<table>
<thead>
<tr>
<th>LV-Nr.</th>
<th>Titel</th>
<th>Spots</th>
</tr>
</thead>
<tbody>
<tr>
<td>23301 a,b (V,S)</td>
<td>MOD Foundation of Critical Thinking (Tom Bielik)</td>
<td>2</td>
</tr>
<tr>
<td>23411 a,b (V,S)</td>
<td>MOD Methoden der funktionalen Genomforschung von Mikroorganismen   (Halke Antelmann)</td>
<td>2</td>
</tr>
<tr>
<td>23423 a,b,c,d (V,S)</td>
<td>MOD Evolutionary Medicine</td>
<td>4</td>
</tr>
</tbody>
</table>

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)!
<table>
<thead>
<tr>
<th>Course No</th>
<th>Titel</th>
<th>Lecturer</th>
<th>Strubi</th>
<th>Mobi</th>
<th>Medi</th>
</tr>
</thead>
<tbody>
<tr>
<td>216201</td>
<td>Biomolecular X-ray Crystallography</td>
<td>Wahl, Loll, Feller, Weiss, Daumke</td>
<td></td>
<td></td>
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<tr>
<td>a,b,c</td>
<td>Quantitative Fluorescence Microscopy</td>
<td>Ewers</td>
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<tr>
<td>216211</td>
<td>Biological NMR Spectroscopy</td>
<td>Oschkinat</td>
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<tr>
<td>a,b</td>
<td>Biophysical Methods</td>
<td>Oschkinat</td>
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<tr>
<td>216301a,b</td>
<td>Structural Characterization... by...</td>
<td>Ludwig</td>
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<tr>
<td>216402</td>
<td>Nucleic Acids</td>
<td>Fürste, Schröder</td>
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<td>a,b</td>
<td>Protein Analysis and Microsequencing</td>
<td>Weise, Schröder</td>
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<td>216404</td>
<td>Bioanalytical Mass Spectrometry / Proteomic Analysis</td>
<td>Weise</td>
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<tr>
<td>a,b</td>
<td>Alternative Splicing and Protein–RNA Interaction</td>
<td>Heyd</td>
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<tr>
<td>216406</td>
<td>Gene editing with CRISPR/Cas 9 for Cell Biology</td>
<td>Bottanelli</td>
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<tr>
<td>a,b</td>
<td>Quantitative Transcriptomics</td>
<td>Mayer</td>
<td>+</td>
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<tr>
<td>216451</td>
<td>Membrane Protein Expression in Cell-free Systems</td>
<td>Kubick</td>
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<td>a,b</td>
<td>Production and Biophysical Analysis of Selected Membrane Proteins Part 1</td>
<td>Schlesinger, Heberle</td>
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<tr>
<td>216601</td>
<td>Cell Biology (advanced course): Signal Transduction</td>
<td>Knaus</td>
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<td>a,b</td>
<td>Molecular Immunology</td>
<td>Freund, Alvaro Benito</td>
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<tr>
<td>216613</td>
<td>Molecular Pharmacology and Cellular Signal Transduction</td>
<td>Schölein, Haucke</td>
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<tr>
<td>a,b</td>
<td>Analyzing Musculoskeletal</td>
<td>Stricker</td>
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</table>
Registration for Method modules – WS 21/22

Last name: ____________________
First name: ____________________
Student ID number: ____________________
Phone (optional): ____________________
E-Mail: ____________________@zedat.fu-berlin.de

1st Priority:

Course number: ____________________

For MSc BC: Please choose the type of course and the desired field (no field necessary for electives)
Course: ☐ methods ☐ special aspects ☐ electives
Field: ☐ StruBi ☐ MoBi ☐ Medi ☐ Affi

2nd Priority:

Course number: ____________________

For MSc BC: Please choose the type of course and the desired field (no field necessary for electives)
Course: ☐ methods ☐ special aspects ☐ electives
Field: ☐ StruBi ☐ MoBi ☐ Medi ☐ Affi
Tombola

• Mail the form as a PDF FILE to forumbiochem@zedat.fu-berlin.de before Wednesday (October 13th) 22:00 h

• The tombola will start on Friday (October 15th) at 10:00 h
You have to apply for a “decentralized” Methods Module

https://www.bcp.fu-berlin.de/studium-lehre/verwaltung/studienbuero/studienbuero_chemie/CORONA
Antrag zur Genehmigung / Anmeldung eines dezentralen 5 LP Methodenmoduls
In Anlehnung an ein unbenotetes 5 LP Forschungsprojekt im Masterstudiengang Biochemie

Name, Vorname: ___________________________ Matrikelnr.: ___________________________
Name, first name

Tel.: ___________________________ ZEDAT E-Mail: ___________________________ @zedat.fu-berlin.de

Geplante experimentelle Techniken (Methodenmodulcharakter) | Planned experimental techniques (methods module-like):

1.
2.
3.
4.
5.

Dauer | Duration: 3 Wochen Laborarbeit plus 1 Woche Vor-/Nachbereitung | 3 weeks lab work plus 1 week preparation/post-processing
Beginn/Ende des Methodenmoduls | Start/end dates for the methods module:

Betreuer/In des Methodenmoduls; Name, E-Mail, Arbeitsanschrift | Supervisor of the methods module; name, e-Mail, work address:

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 committee can be supervisors of a methods module. The supervisor has to be approved before the start of the project.
3rd study area: Research

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

- 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
3rd 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")
Apply 4 weeks before the planned start date

https://www.bcp.fu-berlin.de/studium-lehre/verwaltung/pruefungsbuero/pruefungsbuero_unterlagen/biochemie_master
Antrag zur Genehmigung / Anmeldung eines benoteten Forschungsprojekts (15 LP)
im Masterstudiengang Biochemie

Name, Vorname: ___________________________________________________________
Matrikelnr.: ___________________________ Student ID: ________________
Tel.: _______________________________ ZEDAT E-Mail: ________________________

Thema | Topic: ....................................................................................................

Kurzbeschreibung des Arbeitsthemas und der experimentellen Ansätze | Brief description of the research topic and planned procedures:

Beginn/Ende des Forschungsprojekts | Start/end dates for the research project:

Betreuer/in des Forschungsprojekts; Name, E-Mail, Arbeitsanschrift | Supervisor of the research project; name, e-Mail, work address:

**Wichtig!** Professoren, Privatdozenten, Habilitierte mit Lehrauftrag an der FU Berlin und vom Prüfungsausschuss zugelassene Personen können Forschungsprojekte betreuen. Der/die Betreuer/in muss vor Beginn des Projekts 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 committee can be supervisors of a research project. The supervisor has to be approved before the start of the project.
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 research seminar of the hosting group and the keeping of a lab notebook according to common scientific standards. The lab notebook will remain with the host group. In addition, students have to compose a short 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”).

Exam

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
Outline for a Report on a Graded Research Project (15 LP)

Cover Page
- Title of the research project
- Name of the student
- Student ID
- Name of the supervisor
- Host institution
- Place and Date

Abstract/Summary
- Maximum 0.5 pages

Introduction
- Concise description of the state of the art, focusing on the aspects that led to the project
- Maximum 1 page

Materials and Methods
- In sufficient detail or referenced to allow independent reproduction
- Length variable

Results
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)

1. Identify a relevant research problem
   (critical literature search)

2. Develop it into a PhD thesis project
   (frame specific questions, assess feasibility)

3. 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
4th study area: Electives

<table>
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<tr>
<td>2. (30 ETCS)</td>
<td>Main lecture part II (5 ECTS)</td>
<td>Method module 2. field (5 ECTS)</td>
<td>Research project 2. field (15 ECTS)</td>
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</tr>
<tr>
<td>4. (30 ETCS)</td>
<td>Master's thesis and defence (30 ECTS)</td>
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</tbody>
</table>

- **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)*
Information for enrolled students

Please find the guideline for your master studies [here](#).

The presentation to the master's studies is [here](#).

You find a summary of the available methods modules [here](#).

A calendar with the respective dates can be found [here](#).

The form for attendance of Lise-Meitner-Kolloquia is available [here](#).
4th 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 and 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
Janine Heinrich

Freie Universität Berlin
Fachbereich Biologie, Chemie, Pharmazie
Prüfungsbüro
Studiengänge B.Sc. Biologie Lehramt, B.Sc. und M.Sc. Biochemie
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)