Master's program Biochemistry



Thielallee 63 Takustr. 6



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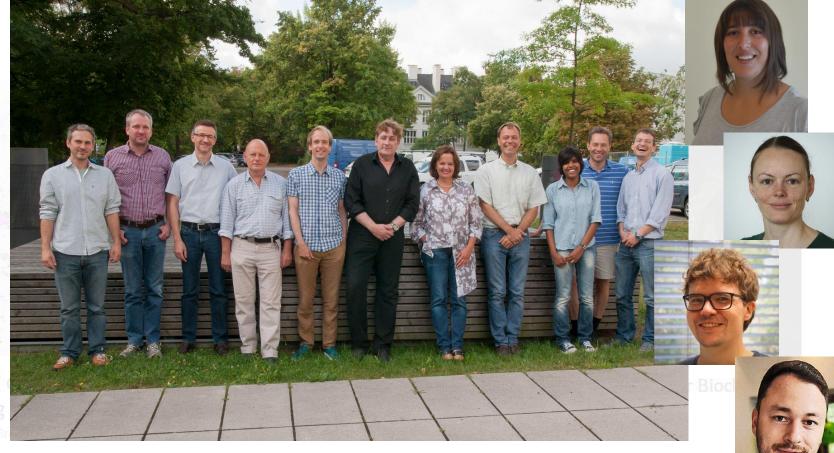
Department of Biology, Chemistry, Pharmacy / Chemistry and Biochemistry /

BIOCHEMISTRY

Freie Universität

RESEARCH GROUPS	STUDENTS	BACHELOR	MASTER	NEWS/SEMINARS	CONTACT
Overview Research Gro	oups				

Overview Bottanelli Group - Membrane Trafficking Chakrabarti Group - mRNA-Metabolism Ewers Group - Membrane Biochemistry Freund Group - Protein Biochemistry Heyd Group - RNA Biochemistry Knaus Group - Signal Transduction Neu Group - Biochemistry of viruses Stauber Group - Cellular Biochemistry Stricker Group - Biochemistry and Genetics Wahl Group - Structural Biochemistry Associated Groups



Please contact us, if you need help or advice.

Beratungsangebote der Biochemie:

http://www.bcp.fu-berlin.de/en/chemie/biochemie/bachelor/beratung/index.html

Mentoring Fachbereich Biologie Chemie Pharmazie

Jana Petri (Takustr. 3, Raum 14.10)

Sprechstunde jederzeit, nach Absprache per E-Mail

E-Mail: mentoring@bcp.fu-berlin.de | Telefon: 030-838 50971

https://www.bcp.fu-berlin.de/studium-lehre/verwaltung/mentoring

Studentische Studienberatung

Fiona Douglas

Sprechstunde nach Vereinbarung per Mail

E-Mail: studbiochem@zedat.fu-berlin.de

Studienbüro

Christiane Müller

Raum A.012, Arnimallee 22

Sprechzeiten während der Vorlesungszeit dienstags 10 bis 11 Uhr

E-Mail: studienbuero@chemie.fu-berlin.de Tel.: 030-838-55330

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

Prüfungsbüro

Janine Heinrich

Raum A.029, Arnimallee 22

Sprechzeiten: dienstags (10 bis 13 Uhr)

donnerstags (13 bis 16 Uhr)

Derzeit nur digital möglich

E-Mail: pruefungsbuero-biochemie@fu-berlin.de

Tel.: 030-838-55255

https://www.bcp.fu-berlin.de/studium-lehre/verwaltung/pruefungsbuero

BAFöG Studienberatung

Prof. Dr. Florian Heyd (Raum 127, Takustraße 6)

Email: florian.heyd@fu-berlin.de

Studienberatung zu den Praktika

Dr. Jens P. Fürste (Raum 319, Thielallee 63)

Sprechstunde donnerstags 12 bis 13 Uhr

Zur Zeit stellvertretend: Prof. Dr. Florian Heyd (Email: florian.heyd@fu-berlin.de)

Erasmus Studienberatung

Dr. Bernhard Loll (Raum 307, Takustr. 6)

Termin nach Rücksprache

Email: loll@chemie.fu-berlin.de

Allgemeine Studienberatung (Info-Service Studium)

Info-Service (Iltisstr. 4 am U-Bhf. Dahlem-Dorf)

Sprechstunde: Montag – Donnerstag 9 bis 17 Uhr, Freitag 9 bis 15 Uhr

Persönliche Beratung: Nach Vereinbarung

info-service@fu-berlin.de

Tel.: 030-83870000 o. 030-83877770

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

Psychologische Beratung

Termine nur auf Vereinbarung

E-Mail: psychologische-beratung@fu-berlin.de

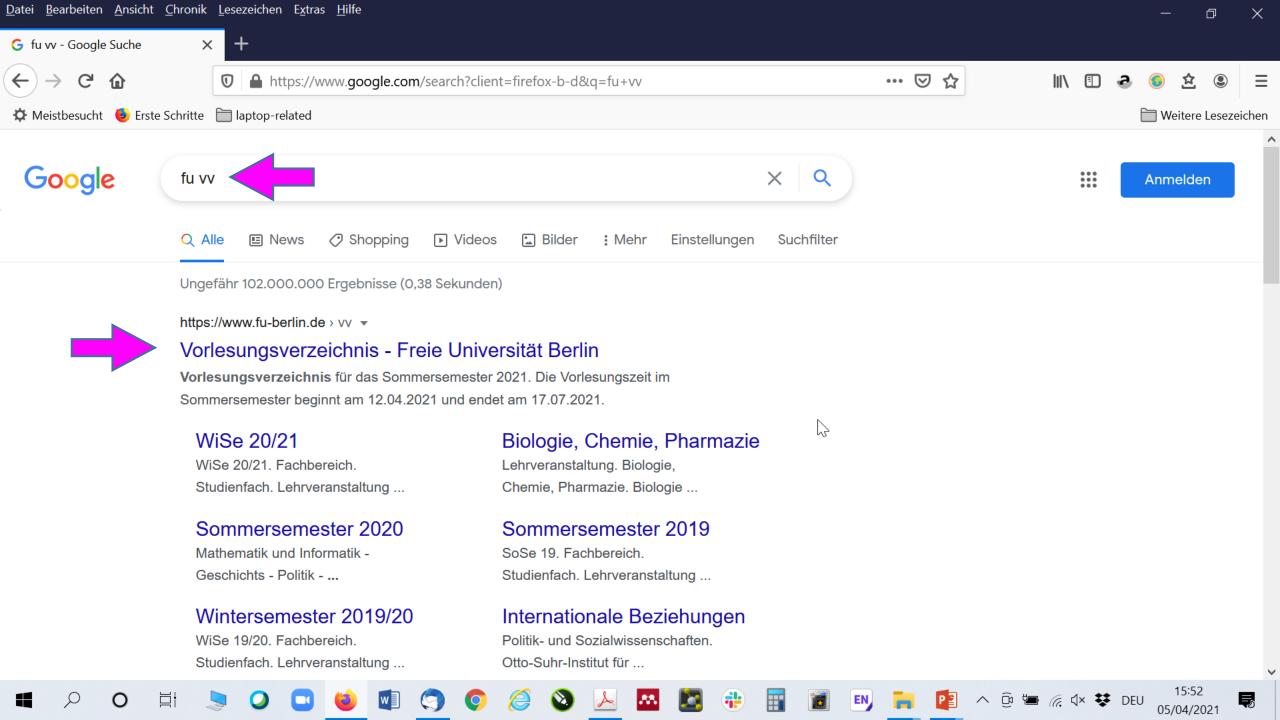
Telefon: 030-838 52247

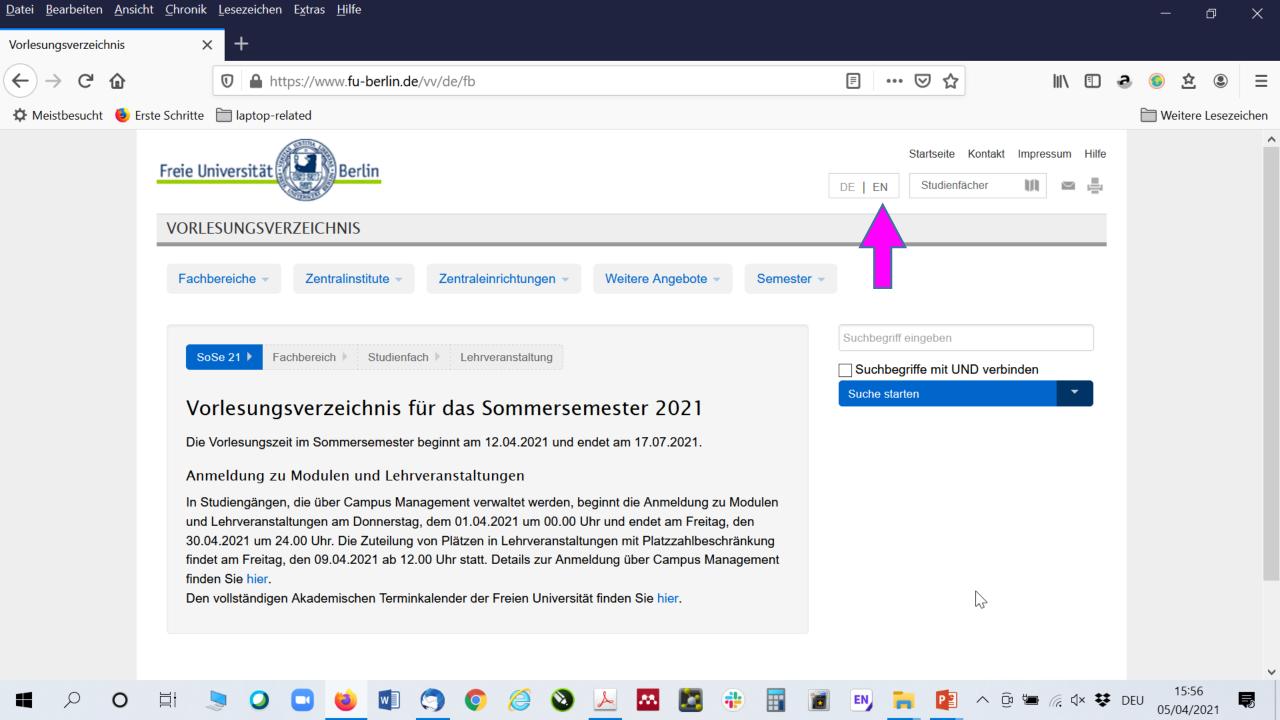
Chat: (Montag 19 – 21 Uhr) www.fu-berlin.de/sites/studienberatung/psychologische_beratung/chat/

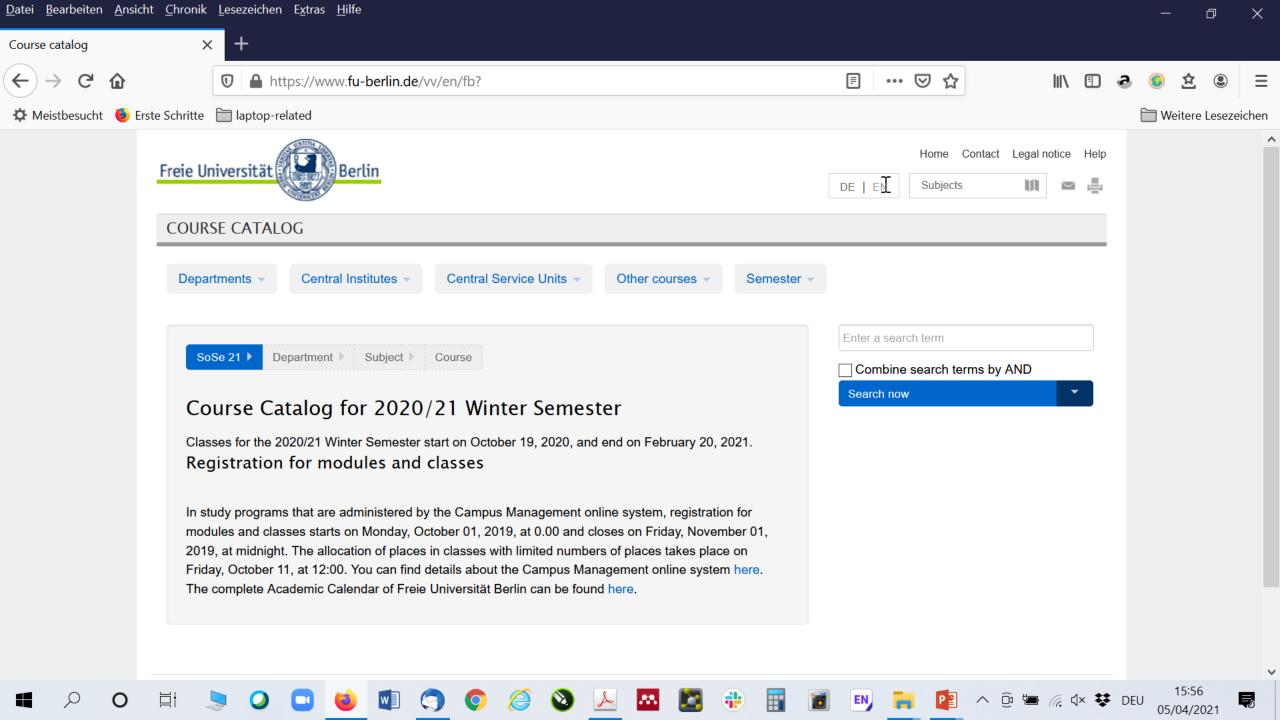
Exemplary curriculum

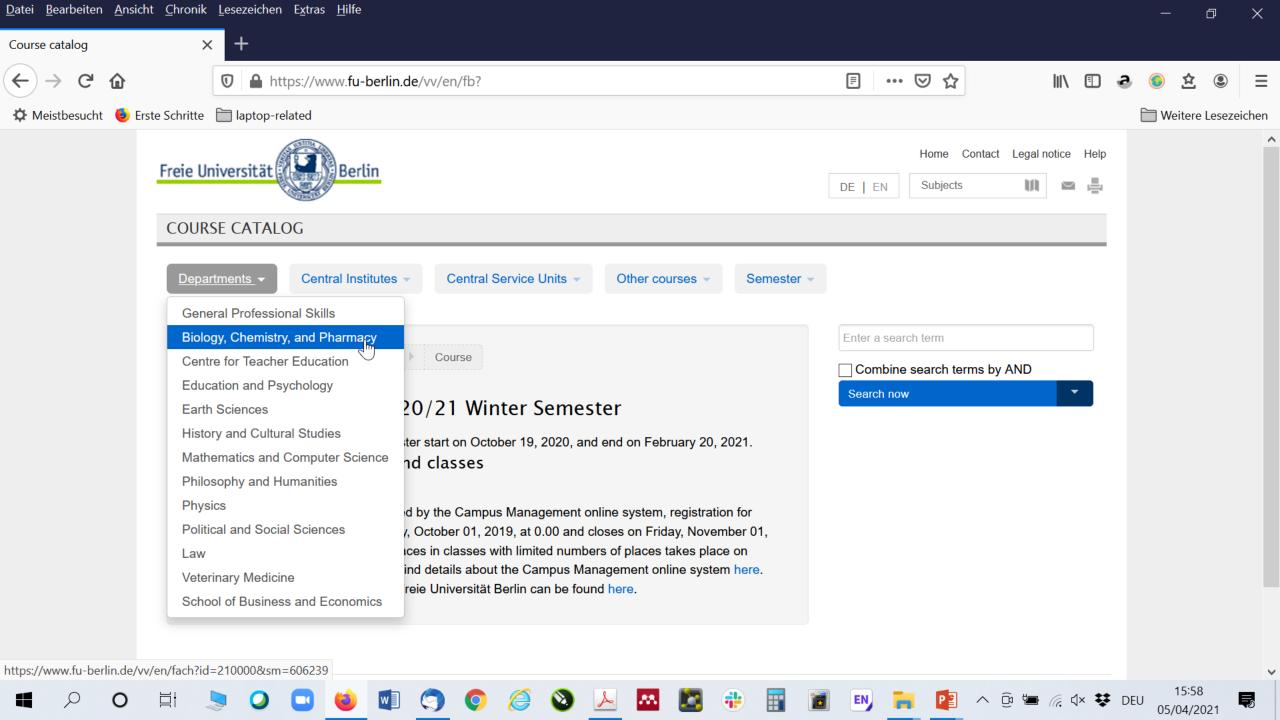
Semester	Basics	Methods	Research
	and electives		
1. (30 ECTS)	Main lecture part I	Method module	Research project
	(5 ETCS)	1. field (5 ETCS)	1. field (15 ECTS)
	Elective biochemical		
	module (5 ETCS)		
2. (30 ETCS)	Main lecture part II	Method module	Research project
	(5 ETCS)	2. field (5 ETCS)	2. field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

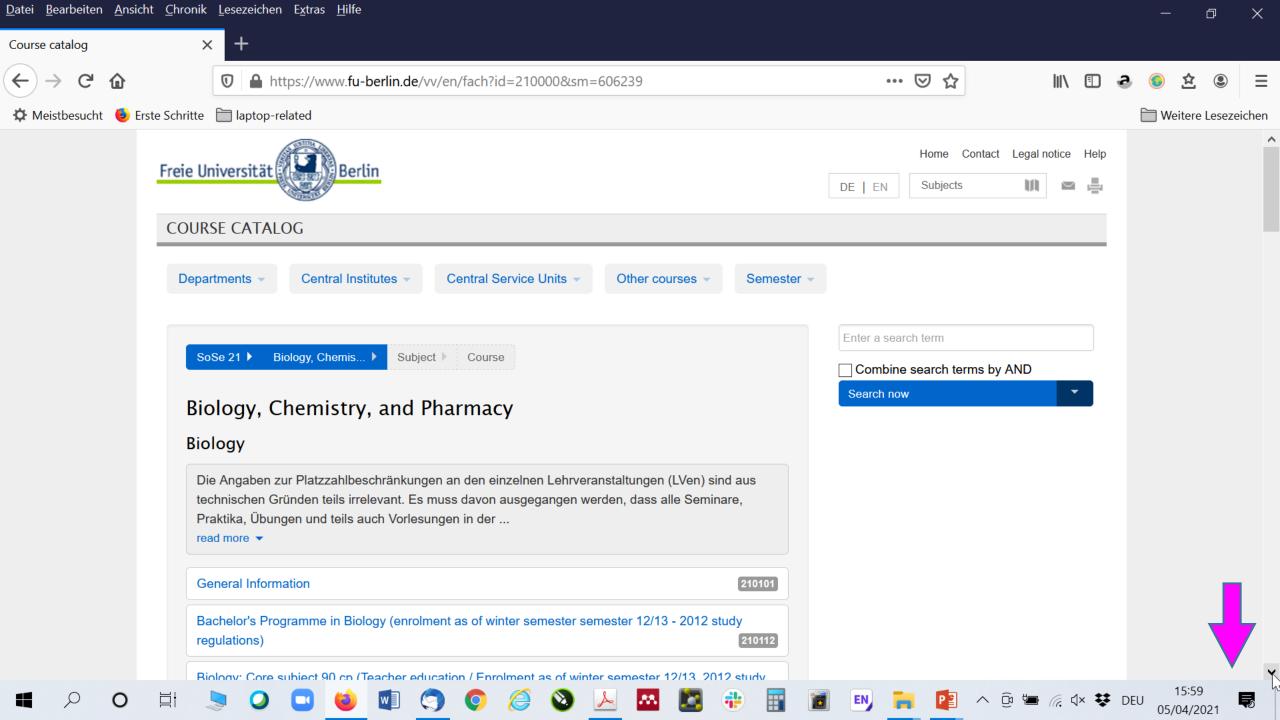
- Exemplary means, you can adjust!
- E.g., finish main lecture, 3 MMs and 2 RPs in semesters 1 and 2
- Could go elsewhere/abroad in 3rd semester for remaining RP, electives

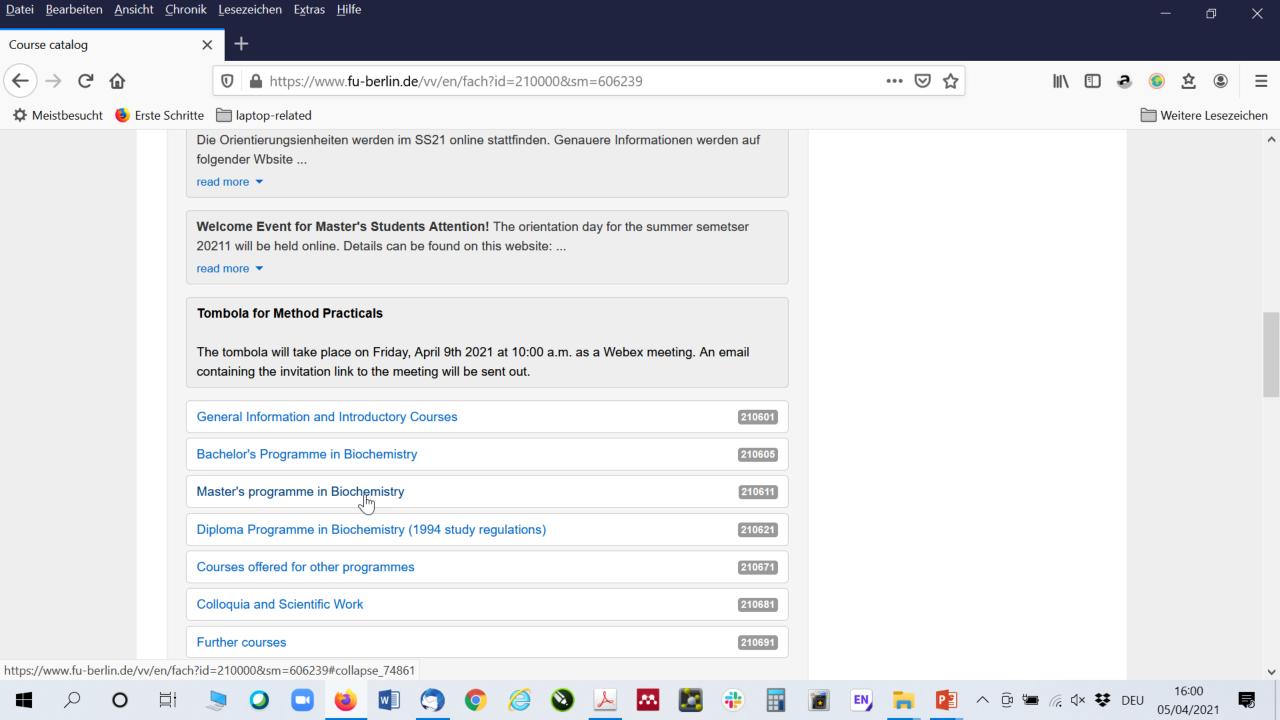


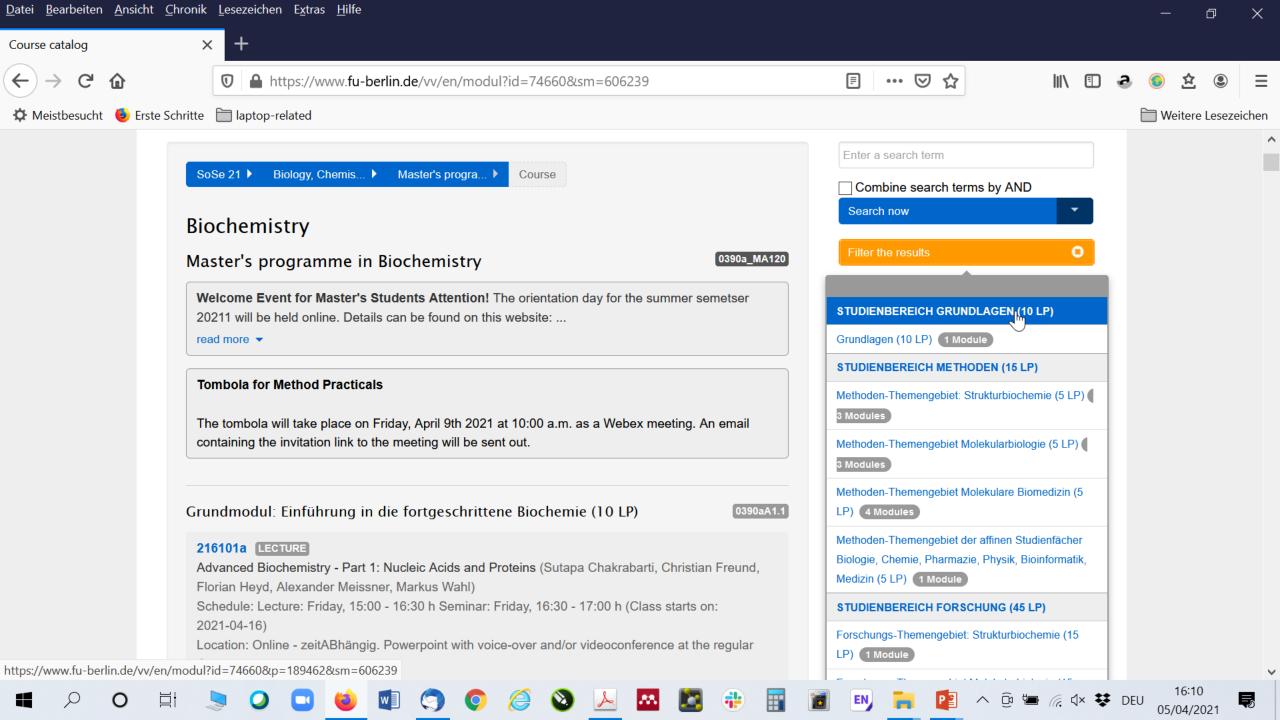












Course descriptions online

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

modiomo				
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
Coming	4	OI DI-E	Presence (S)	15
Seminar	1	Oral Presentation, Discussions	Pre- , post-preparation (S)	
			Exam preparation and examination	90
Language offer of lecture	-	German and/or English		
Compulsory regular attendance		Yes		
Work effort (total)		300 hours 10 CP		
Length of module		one semester		
Lecture is offered		every semester		
Applicability		Master study program Biochemistry		

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

Summer semester 2021

- All 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, 09th April 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

Semester	Basics and electives	Methods	Research
1. (30 ECTS)	Main lecture part I (5 ETCS)	Method module 1. field (5 ETCS)	Research project 1. field (15 ECTS)
	module (5 FTCS)		
2. (30 ETCS)	Main lecture part II (5 ETCS)	Method module 2. field (5 ETCS)	Research project 2. field (15 ECTS)8
	module (5 ETCS)		
3. (30 ETCS)	Free elective module (10 ETCS)	Method module 3. or affine field (5 ETCS)	Research project 3. or affine field (15 ECTS)
4. (30 ETCS)	Master's thesis and defend (30 ETCS)	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

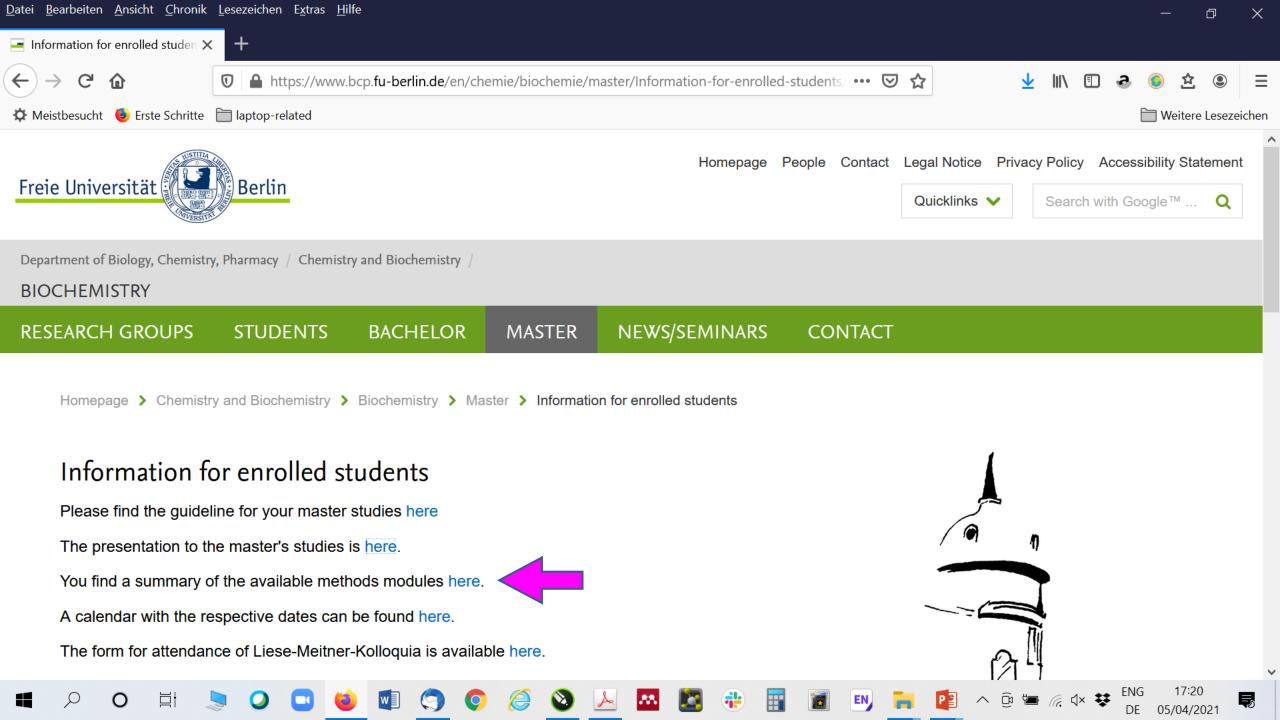
2nd study area: Methods

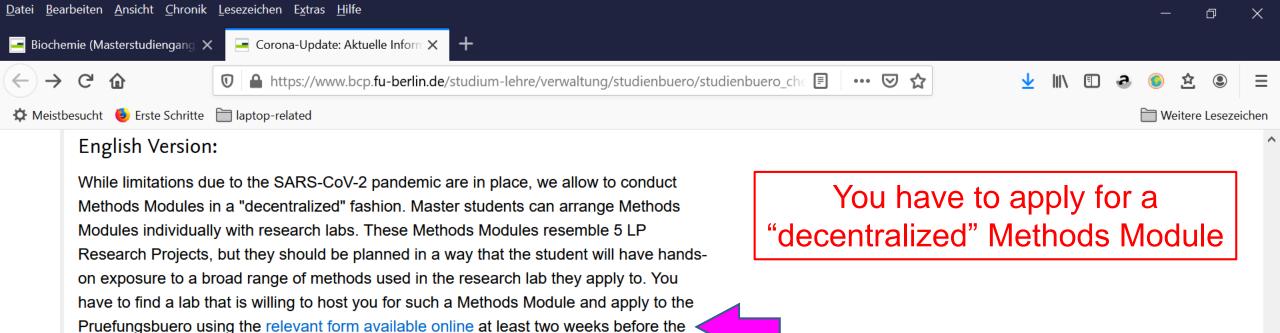
Semester	Basica	Methods	Bassarah
Semester	Basics	Wethous	Research
	and electives		
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	(5 ETCS)	1. field (5 ETCS)	1. field (15 ECTS)
	Elective biochemical		
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	(5 ETCS)	2. field (5 ETCS)	2. field (15 ECTS)8
	Elective biochemical		
	module (5 ETCS)		
3. (30 ETCS)	Free elective module	Method module	Research project
	(10 ETCS)	3. or affine field (5 ETCS)	3. or affine field (15 ECTS)
4. (30 ETCS)	Master's thesis and defered		
	(30 ETCS)		

- 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 combined with a subsequent Research Project

2nd 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")





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

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

https://www.bcp.fu-berlin.de/studium-lehre/verwaltung/studienbuero/studienbuero chemie/CORONA

Benotete Forschungsprojekte mit 15 Leistungspunkten

Research Project or Master's thesis in the same lab.









the Examination Office).







































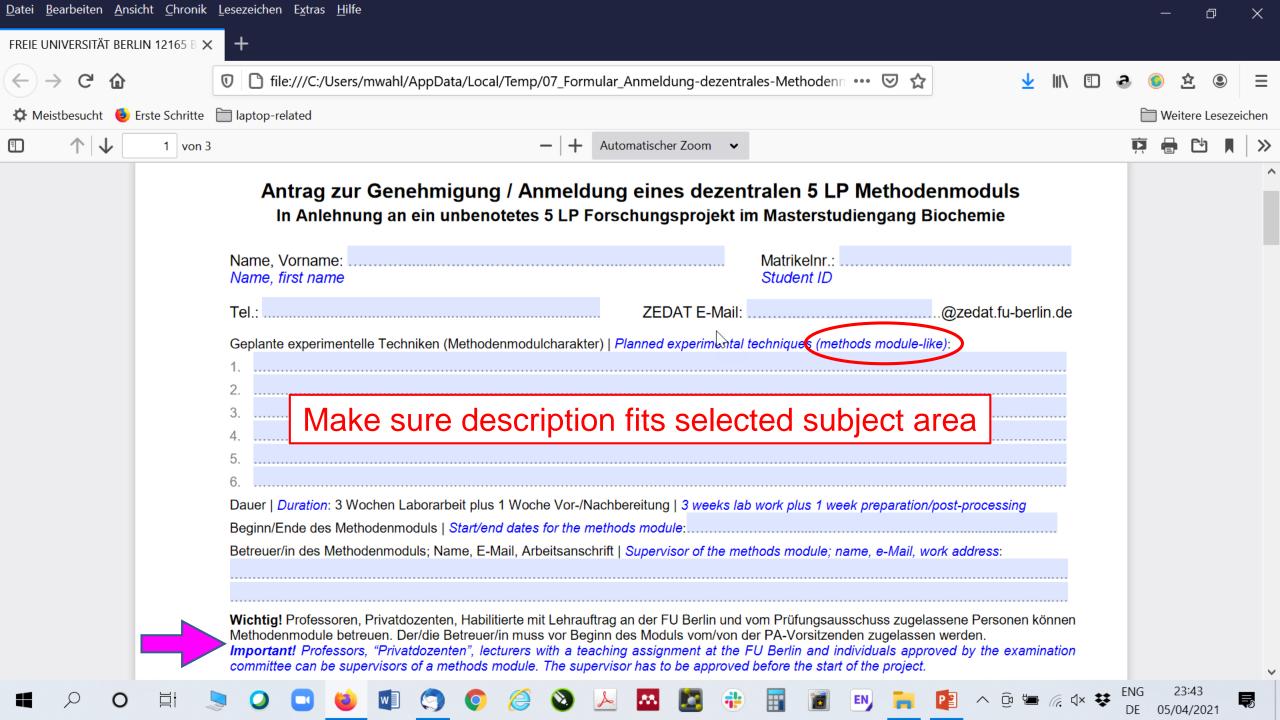












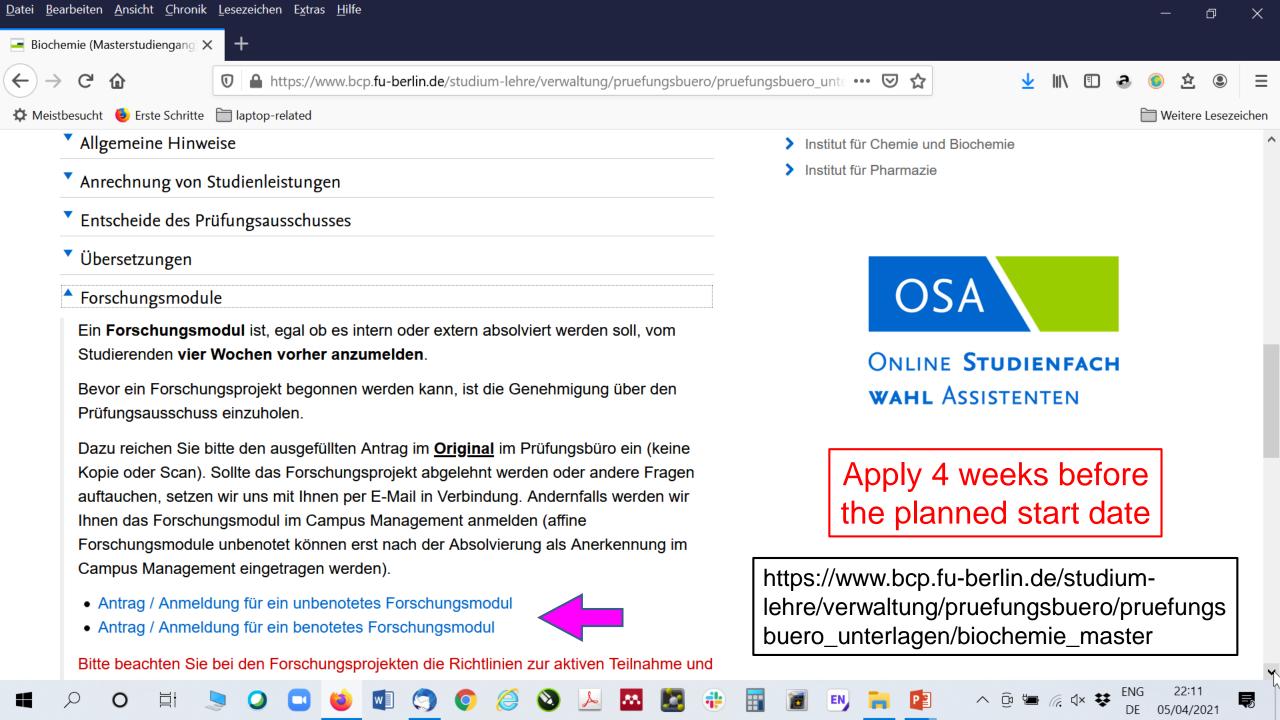
3rd study area: Research

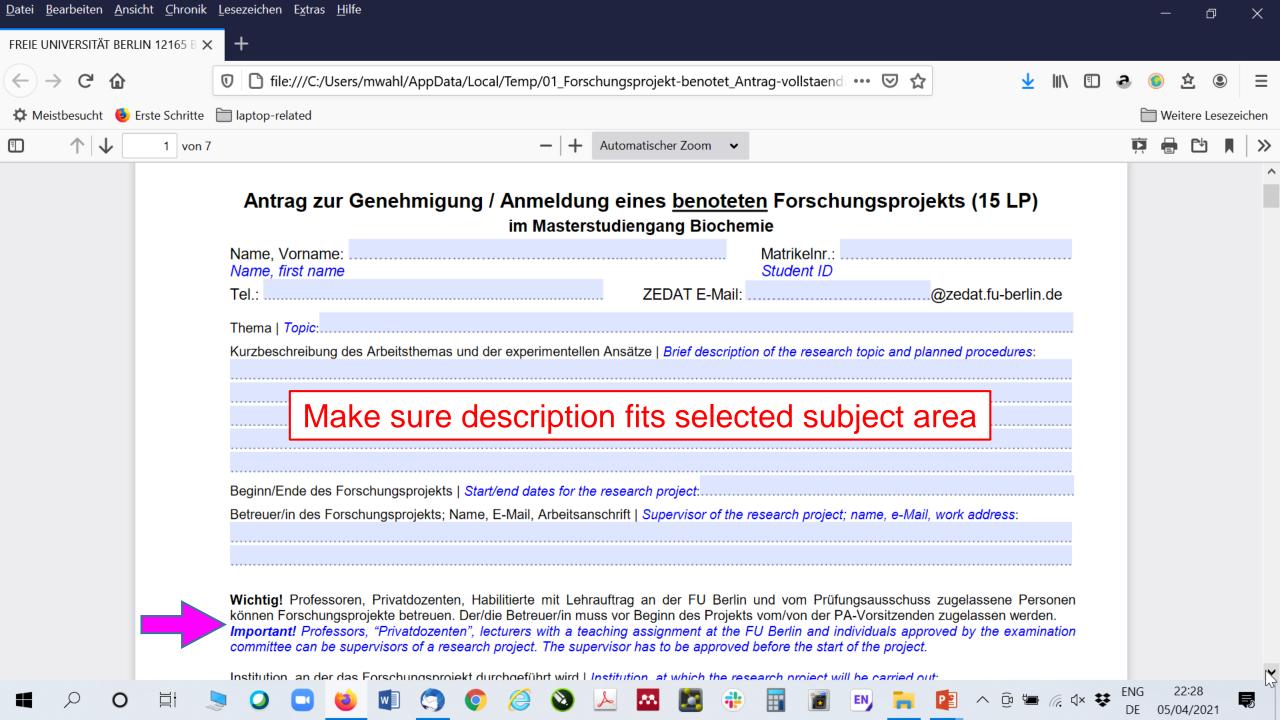
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Semester	Basics	Methods	Research
	and electives		
1. (30 ECTS)	Main lecture part I	Method module	Research project
	(5 ETCS)	1. field (5 ETCS)	1. field (15 ECTS)
	Elective biochemical		
	module (5 ETCS)		
2. (30 ETCS)	Main lecture part II	Method module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

- 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

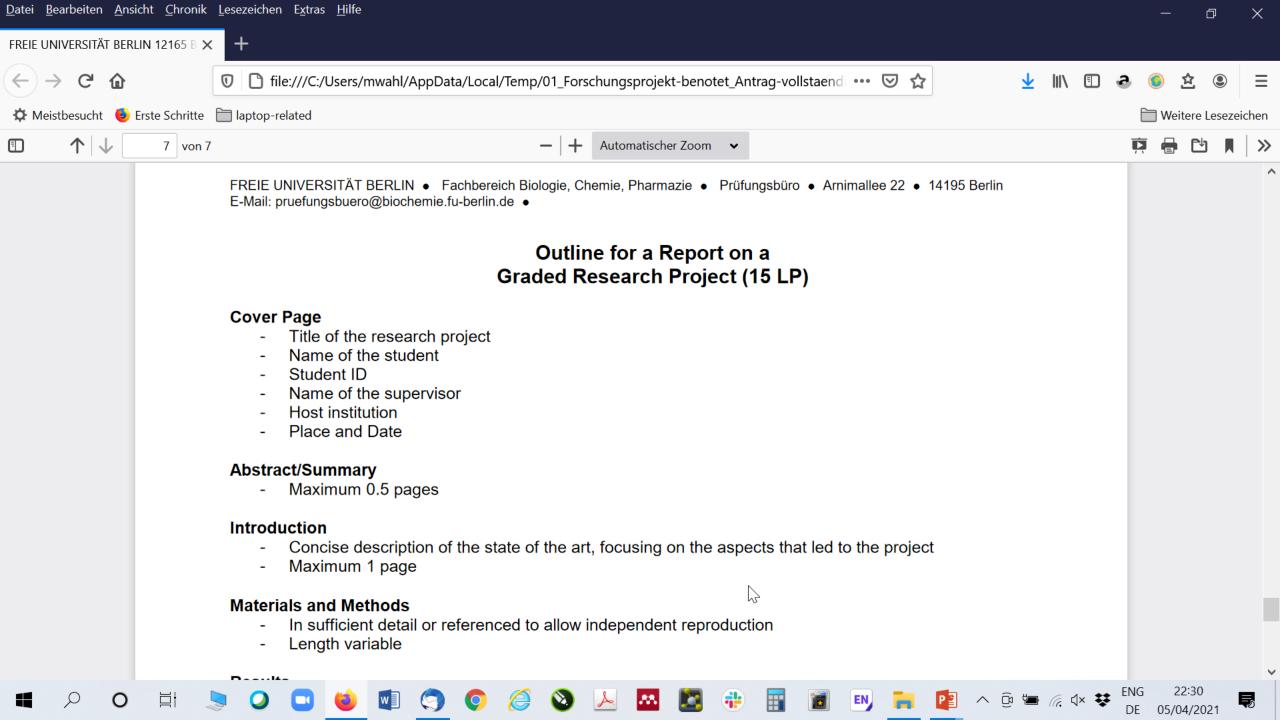
3rd study area: Research

- 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")









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

4th study area: Electives

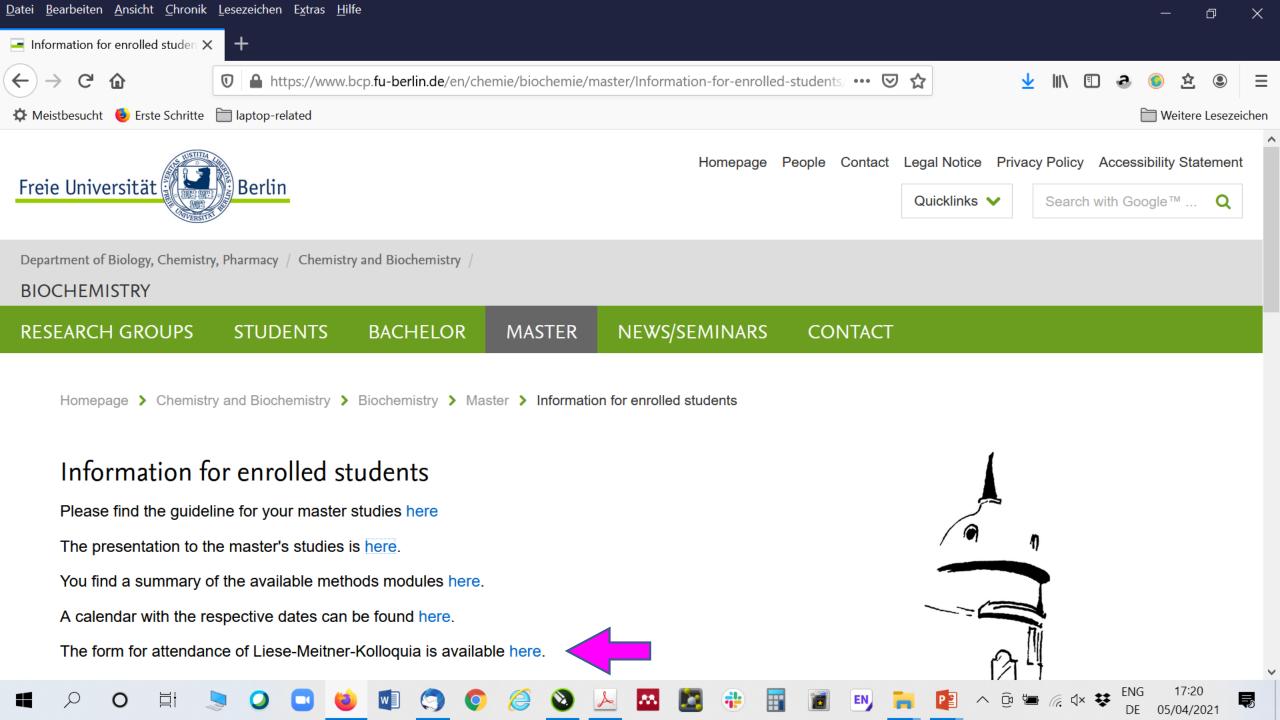
Semester	Basics and electives	Methods	Research
1. (30 ECTS)	Main lecture part I (5 FTCS)	Method module 1. field (5 ETCS)	Research project 1. field (15 ECTS)
	Elective biochemical module (5 ETCS)		
2. (30 ETCS)	Main lecture part II (5 ETCS)	Method module 2. field (5 ETCS)	Research project 2. field (15 ECTS)8
	Elective biochemical module (5 ETCS)		
3. (30 ETCS)	Free elective module (10 ETCS)	Method module 3. or affine field (5 ETCS)	Research project 3. or affine field (15 ECTS)
4. (30 ETCS)	(30 ETCS)	L	

- 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 ...")
- 5-CP or 10-CP Research Projects
- Special lectures/seminars offered by FUB Biochemistry (course catalog)

4th study area: Electives

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

- 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)

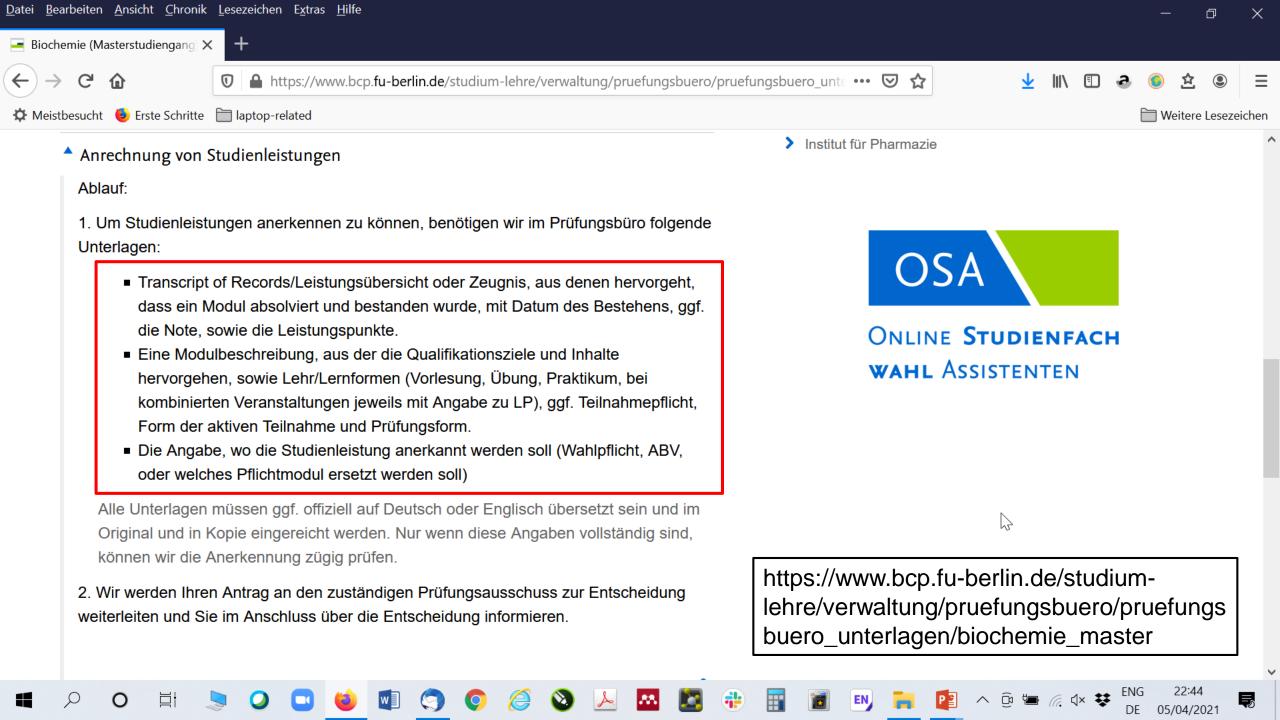


4th study area: Electives

- 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

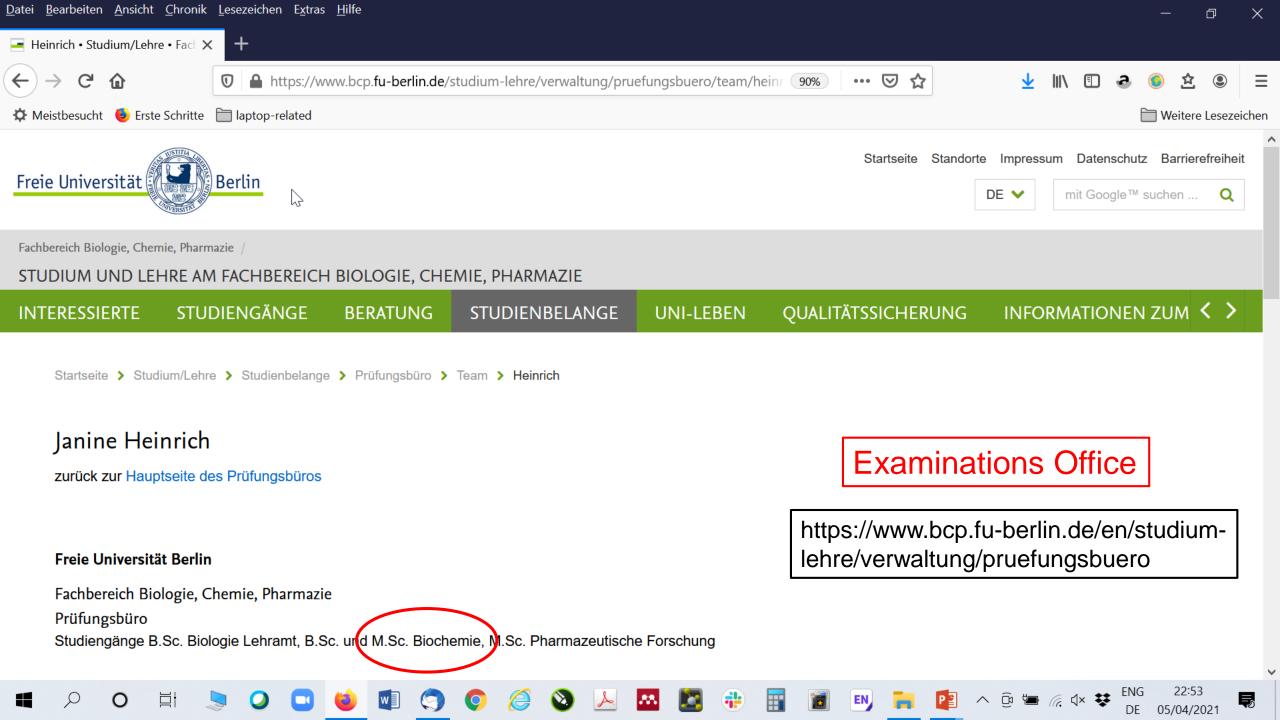
- We are open to accept equivalent courses taken elsewhere
- We are prepared to accept suitable online courses as equivalent
- Check before enrolling in a course!
- Detailed info on the course and suggested equivalent to Examinations Office

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

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

Questions?

- Via email to any faculty member
- Via email to Examinations Office
- Via email to FSI
- Via email to Fiona Douglas (Studentische Studienberatung)
- 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)