

Introduction to M.Sc. Bioinformatics Winter Semester 2025/2026

Variants A, B, and C



Dr. Markus Zimmermann
Studies Coordinator
Bioinformatics & Medical Informatics

Welcome!



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<https://commons.wikimedia.org/wiki/File:Tuebingen-gebäude-auf-dem-sand-1.jpg>
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<https://commons.wikimedia.org/wiki/File:Tuebingen-gebäude-auf-dem-sand-1.jpg>

Department of Computer Science, University of Tübingen

Department of Computer Science

Welcome to the Department of Computer Science!

Head & Committees

Research Groups

Staff

Wilhelm Schickard ushered in the era of computing devices in Tübingen – and never has computer science been as exciting as today, almost 400 years later. The more than 40 groups of the Wilhelm-Schickard Institute (WSI) teach, research and apply **computer science at top level**.

The research focus of the institute lies in the core areas of **computer science** as well as in **bioinformatics**, **media informatics** and **cognitive science**. Tübingen's computer scientists benefit from the diverse research environment within and outside the University of Tübingen.

The focus on **machine learning** is currently being rapidly expanded, in particular through the Cluster of Excellence "Machine Learning in Science" and the Baden-Württemberg  Cyber Valley Initiative, which also includes the Max Planck Institute for Intelligent Systems and the University of Stuttgart. Together with these strong partners, the **Department of Computer Science** forms one of the centres for **machine learning** in Germany and Europe.

The study of computer science in Tübingen is correspondingly versatile and at the pulse of time: Join us in studying this young science in our Bachelor's and Master's programmes and become part of the success story!

Facts & Numbers

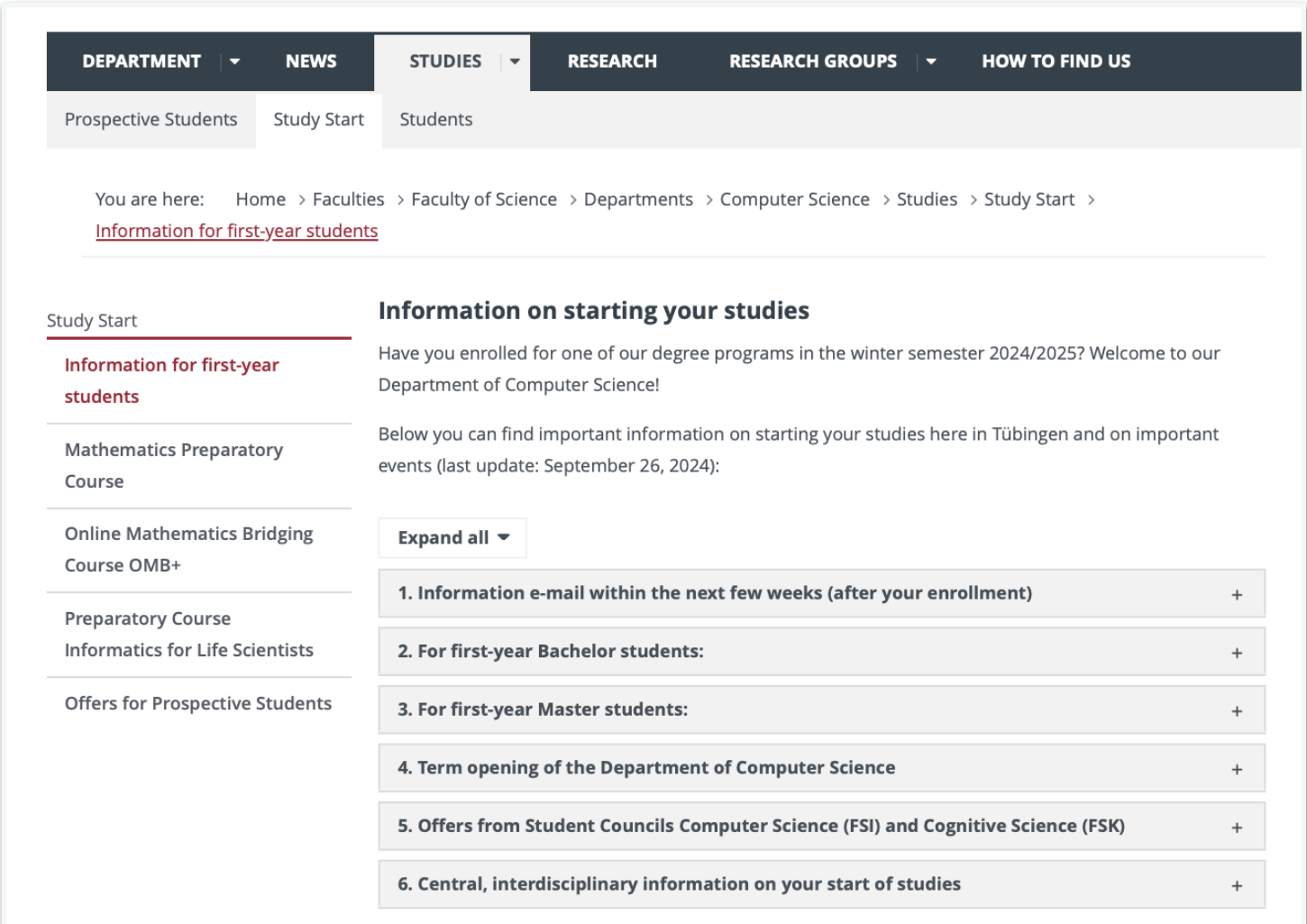
about	in	currently	third-party funded with
2000	19	44	12
students	study programs	research groups	M € in 2021



<https://uni-tuebingen.de/de/13825>

CS Department Webpages

- Information on the department
- Information on the different research groups
- Information on studies



The screenshot displays the 'STUDIES' section of the CS Department website. The navigation bar includes 'DEPARTMENT', 'NEWS', 'STUDIES', 'RESEARCH', 'RESEARCH GROUPS', and 'HOW TO FIND US'. Under 'STUDIES', there are links for 'Prospective Students', 'Study Start', and 'Students'. The 'Study Start' link is active, leading to a page titled 'Information on starting your studies'. The page content includes a welcome message for students enrolling in the winter semester 2024/2025, a list of important information for starting studies, and a sidebar with links to various preparatory courses and offers for prospective students.

DEPARTMENT ▾ **NEWS** **STUDIES** ▾ **RESEARCH** **RESEARCH GROUPS** ▾ **HOW TO FIND US**

Prospective Students Study Start Students

You are here: Home > Faculties > Faculty of Science > Departments > Computer Science > Studies > Study Start > [Information for first-year students](#)

Study Start

Information for first-year students

Mathematics Preparatory Course

Online Mathematics Bridging Course OMB+

Preparatory Course Informatics for Life Scientists

Offers for Prospective Students

Information on starting your studies

Have you enrolled for one of our degree programs in the winter semester 2024/2025? Welcome to our Department of Computer Science!

Below you can find important information on starting your studies here in Tübingen and on important events (last update: September 26, 2024):

Expand all ▾

1. Information e-mail within the next few weeks (after your enrollment) +
2. For first-year Bachelor students: +
3. For first-year Master students: +
4. Term opening of the Department of Computer Science +
5. Offers from Student Councils Computer Science (FSI) and Cognitive Science (FSK) +
6. Central, interdisciplinary information on your start of studies +

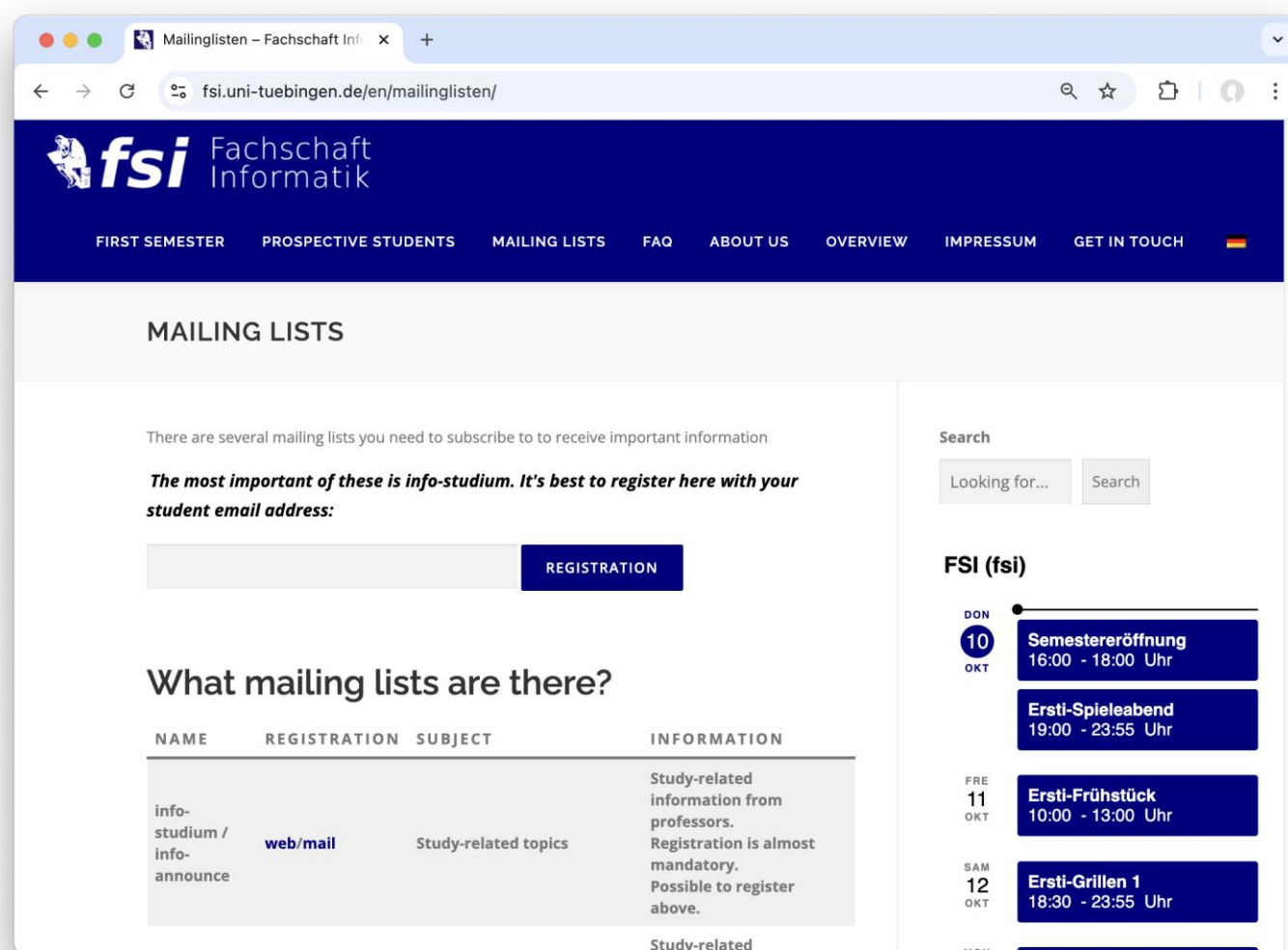


<https://uni-tuebingen.de/en/197597>

Student Council (Fachschaft)

- Represents all students in the CS department
- Provides infos and maintains mailing lists

<https://www.fsi.uni-tuebingen.de/en/>



- Please join their **info-studium** mailing list today!

<https://www.ibmi.uni-tuebingen.de>



Faculty of Science / Faculty of Medicine

Institute for Bioinformatics and Medical Informatics (IBMI)

INSTITUTE

NEWS

EDUCATION

PHD

FORSCHUNG

EVENTS

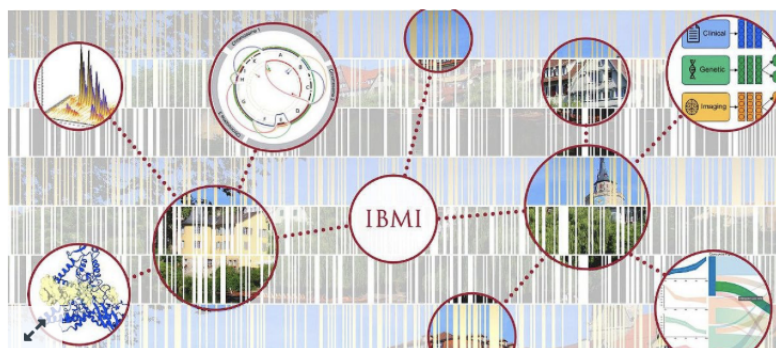
Members

Management

Contact

Members

You are here: Home > Faculties > Faculty of Science > Departments > Interfaculty Facilities > [Institute](#)



With the establishment of the **Institute for Bioinformatics and Medical Informatics (IBMI)** the University of Tübingen brings together expertise in informatics, medicine, and the life sciences in a unique institute bridging the existing faculties of science and medicine.

Over the last decades, the use of computer science methods has fundamentally changed research in the life sciences and with the ongoing digital transformation and a pervasive application of artificial intelligence, the entire field is facing new and pivotal challenges. Pooling the expertise in an interdisciplinary institute is thus essential for effective research as well as the comprehensive education of qualified scientists in the digitized life sciences.

News

01.12.2023

The Frankenstein molecule

Resurrection of an ancient antibiotic to create antibiotics of the future

[Read more](#) →

Institute for Bioinformatics and Medical Informatics



Dr. Mete Akgün

Medical Data Privacy and Privacy-Preserving ML on Healthcare Data (MDPPML)
mete.akguen@uni-tuebingen.de



Jun.-Prof. Dr. Thomas Küstner

Medical Image and Data Analysis
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Prof. Dr. Manfred Claassen

Clinical bioinformatics & Machine learning in translational single-cell biology
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Prof. Dr. Detlef Weigel

Molekularbiologie
detlef.weigel@tuebingen.mpg.de



Prof. Dr. Andrei Lupas

Protein Evolution
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Prof. Dr. Carsten Eickhoff

E-Health and Medical Data Science
carsten.eickhoff@uni-tuebingen.de



Prof. Dr. Philipp Berens

Data Science für die Sehforschung
philipp.berens@uni-tuebingen.de



Prof. Dr. Sven Nahnsen

Zentrum für Quantitative Biologie (QBIC)
sven.nahnsen@uni-tuebingen.de



Prof. Dr. Daniel Huson

Algorithmen der Bioinformatik
daniel.huson@uni-tuebingen.de



Prof. Dr. Frank Böckler

Molekulares Design & Pharmazeutische Biophysik
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Prof. Dr. Kay Nieselt

Integrative Transkriptomik
kay.nieselt@uni-tuebingen.de



Prof. Dr.-Ing. Oliver Kohlbacher

Angewandte Bioinformatik
oliver.kohlbacher@uni-tuebingen.de



Dr. Thales Kronenberger

Medizinische Mikrobiologie und Hygiene - Arbeitsgruppe Kronenberger
thales.kronenberger@uni-tuebingen.de



Prof. Dr. Nadine Ziemert

Translational Genome Mining for Natural Products
nadine.ziemert@uni-tuebingen.de



Prof. Dr. Stephan Ossowski

Genomdatenanalyse
stephan.ossowski@med.uni-tuebingen.de



Prof. Dr. Nico Pfeifer

Methoden der Medizininformatik
nico.pfeifer@uni-tuebingen.de

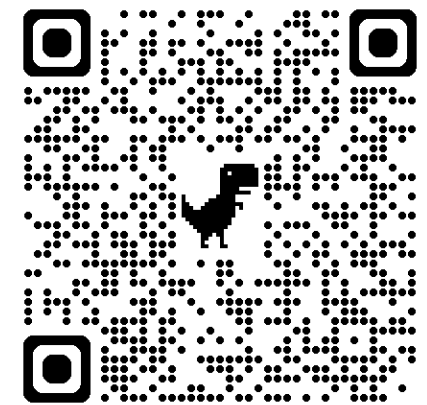


Jun.-Prof. Dr. Harry Scells

<https://scells.me>
<mailto:harrisen.scells@uni-tuebingen.de>

IBMI - Programming Helpdesk

- For Bioinformatics and Medical Informatics, with a focus on variant B students
- Offers basic help with problems in Java or Python
- Organized via ILIAS



[Link](#)

IBMI Programming Helpdesk

Welcome to the programming helpdesk for students in Bioinformatics and Medical Informatics. This offer shall serve as a place for students that need help with basic programming problems, especially in the languages Java and Python. Thus, feel free to ask questions, but please note that we are not responsible for solving other programming languages, however, there's no guarantee to get help.

Please note that you can choose to communicate anonymously in the forum!

We hope that the *IBMI Programming Helpdesk* will develop into a useful and helpful offer!

Have a successful Winter Semester 2026!

> Helpdesk Format

✓ Helpdesk Rules

- Be friendly and respectful:
To us and to your student colleagues!
- Be patient:
Getting an answer may take a few hours and will probably not happen at night!
- Be helpful:
If you can help your student colleague you are cordially invited to do so!
- There are no dumb questions:
This is the right place to ask the supposedly trivial questions!
- Internet Search Engines are your friends:
We assume that you have at least tried to find the answer to your problem in the internet!
Believe us: this supposedly trivial method is a core competence in our days.
However, contact the helpdesk before wasting hours with internet searching!

Studies Administration

- Board of Examiners BSc/MSc Bioinformatics
 - Secretary: Susanne Mischorr
 - pruefungsamt.bioinformatik@uni-tuebingen.de
 - Chair: Prof. Daniel Huson
 - daniel.huson@uni-tuebingen.de
- Studies coordinator
 - Dr. Markus Zimmermann
 - m.zimmermann@uni-tuebingen.de
- Dean of Studies & Studies Advisor Prof. Kay Nieselt
 - kay.nieselt@uni-tuebingen.de

Alma, Course Pages, Ilias and Moodle

- Catalog of courses Alma:
 - <https://alma.uni-tuebingen.de>
 - Contains all courses offered at the University
- Alma pages usually contain *links* to individual course webpages and pages on the learning platforms:
 - Ilias: <https://ovidius.uni-tuebingen.de>
 - Moodle: <https://moodle.zdv.uni-tuebingen.de>
- Access via: ZDV-Login

Use Advanced Search on Alma

EBERHARD-KARLS-UNIVERSITÄT TUBINGEN alma

Browse menu

Home Course organization **Studies offered**

You are here: [Home](#) > [Studies offered](#)

Studies offered

Search for courses
Search for courses by search terms or by extended search criteria.

[Show current courses](#)
The courses of current day will be shown (incl. date, room and teaching person). The date can be changed manually or by a calendar function.

[Show university course catalog](#)
Show all courses in a hierarchic structure.

▶ [Module descriptions](#)
Module descriptions

Save search

Search terms ⓘ

Term

Search [Show all possible search criteria](#) ⓘ [Help for search](#)

Home Course organization **Studies offered** Organisation Service

You are here: [Home](#) > [Studies offered](#) > [Search for courses](#)

Search for courses

Search Reset [Show only quick search criteria](#) ⓘ [Help for search](#) Save search

Basic data ▼

Search terms ⓘ

Term-dependent title

Number

Term

Kind of course = +

Teaching language = +

Structure ▼

Organizational unit = [Select](#)

Courses of study = [Select](#)

Instructors, locations and dates ▼

Instructors [Select](#)

Room = [Select](#)

Date of course ⓘ

Weekday = +

Alma, Course Pages, Ilias and Moodle



Browse menu

HomeCourse organization**Studies offered**OrganisationService

You are here: [Home](#) > [Studies offered](#) > [Search for courses](#)

Detail view

Sequence Bioinformatics | BIOINF4110 (entspricht BIO-4110) | Veranstaltung

Back

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Choose term

Term

Winter 2025/26

More functions

 Reports

Term planning

EventsContentsUniversity course catalogLinked examinationsModules / Courses of study

Basic data ▾

Title	Sequence Bioinformatics	Eventtype	Lecture/Exercise
Number	BIOINF4110 (entspricht BIO-4110)	Frequency of offer	every second semester
Short comment	9 CP		
Organizational unit	Department of Computer Science (person responsible)		

Sequence Bioinformatics >

Alma, Course Pages, Ilias and Moodle



Browse menu



HomeCourse organization**Studies offered**OrganisationService

You are here: [Home](#) > [Studies offered](#) > [Search for courses](#)

Detail view

Sequence Bioinformatics | BIOINF4110 (entspricht BIO-4110) | Veranstaltung

Back

 1 / 1 

Choose term

Term

Winter 2025/26

More functions

 [Reports](#)

Term planning

Events**Contents**University course catalogLinked examinationsModules / Courses of study

Recommendation

More information [here](#).

Alma, Course Pages, Ilias and Moodle



EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN



lehren - lernen - forschen... unterstützt von der Universitätsbibliothek



Veranstaltungen (Magazin) > Wintersemester 2025-26 > 7 Mathematisch-Naturwissenschaftliche Fakultät > Informatik > Algorithms in Bioinformatics (Prof. Huson) > BIOINF4110 Sequence Bioinformatics



Dashboard



Magazin



Persönlicher
Arbeitsraum



Kommunikation



Support

InfoBeitreten

Aktionen

BeitretenAbbrechen

Dem Kurs beitreten

AnmeldungszeitraumUnbegrenzt

AufnahmeverfahrenSie können diesem Kurs direkt beitreten.

Einsichtnahme in personenbezogene Daten

Angaben des Persönlichen Profils

Falls die folgenden Angaben in Ihrem Persönliche Profil vorliegen, können sie von der Kursadministration eingesehen werden:

- Anmeldename
- Vorname
- Nachname
- Titel
- E-Mail
- Matrikelnummer
- Studiengang

Zustimmung *

☐ Ich bin damit einverstanden, dass die oben angegebenen Daten von der Kursadministration eingesehen werden kann.

* Erforderliche Angabe

BeitretenAbbrechen

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Signing Up for Courses

In most cases, you will have to sign up for a course in *two* steps:

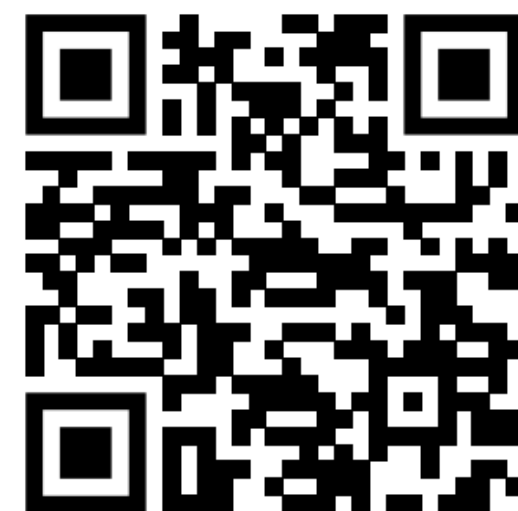
- First, most courses require that you *enroll* via Ilias or Moodle to get access to materials, assignments and tutorials. **Do this early.**
- Second, you must use Alma (or in rare cases contact the board-of-examiners' secretary) to *register** for the course exam. **Do this second.**
(Rarely, a separate document is needed)

* Not possible yet. A general email should be sent out next week

PO and Module Handbook

- The “Prüfungs- und Studienordnung der Universität Tübingen für die Studiengänge Bioinformatik, ... und Medizininformatik ... Master of Science (M.Sc.) 2021” (PO) contains the regulations for the MSc Bioinformatics program.
- The PO lists the *modules* that you must complete.
(2 documents: general and special provisions. Please browse both documents!)
- The *module handbook* contains the details of the modules.
(course descriptions, study areas, ECTS, prerequisites, etc.)

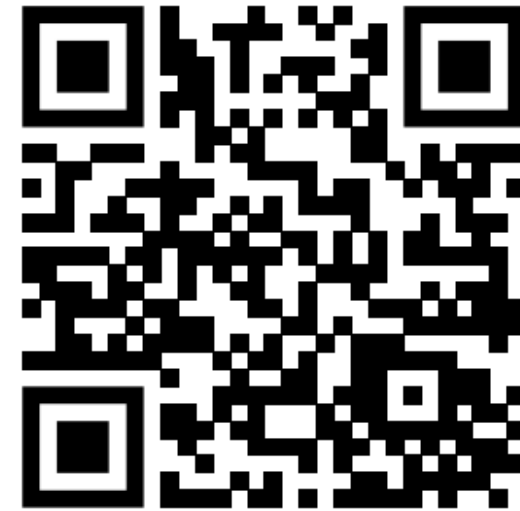
<https://uni-tuebingen.de/en/74348>



Courses to Modules

- This page lists all CS courses and states which modules each can be used for:

<https://courses.cs.uni-tuebingen.de>



Bachelor					Master				Informatik				Bioinformatik							
									Studienbere	Studienbere	Studienbere	Studienbere	Studienbere	Studienbere	Studienbere	Studienbere	Studienbere	Studienbere	Studienbere	Studienbere
Titel	Lehrform	ECTS	Kennung	Dozent	INFO-PRAK	INFO-THEO	INFO-TECH	INFO-INFO	BIO-SEQ	BIO-STRUK	BIO-SEM	BIO-BIO	BIO-PRAK	INFO-PRAK	IN TH					
Parametrisierte Algori...	V	6	INFO-4413	Dorn		x		x												
Parametrisierte Algori...	S	3	INFO-4414	Dorn				x												
Parametrisierte Algori...	V, Ü	9	INFO-4417	Dorn		x		x												
Seminar zu ausgewä...	S	3	INFO-4999	Alle Do...				x												
Ausgewählte Theme...	V, Ü	6	MEDZ-4310	Dozent...																
Ausgewählte Theme...	V	9	MEDZ-4320	Dozent...																
Mathematische Meth...	S	3	BIOINF43...	Mostoli...				x			x	x								
Systembiologie II	V, Ü	6	BIOINF439 4 (entspricht BIO-4394)	Dräger								x								
Informationsverarbeit...	S	3	INFO-4250	Franz				x												
Intelligent Systems II ...	V, Ü	6	INFO-4177	Gehler,...				x												
Implementierung Rel...	V, Ü	9	INFO-4141	Grust	x			x							x					
Datenbanksysteme u...	V, Ü	6	INFO-4142	Grust	x		x	x							x					
Deklarative Datenba...	V, Ü	6	INFO-4147	Grust	x			x							x					
Spezielle Kapitel zu ...	V, Ü	6	INFO-4149	Grust	x			x							x					

MSc Bioinformatics

Three variants:

- A - already have a BSc in Bioinformatics (International program)
 - B - have a BSc in Biology (or similar)
 - C - have a BSc in Computer Science (or similar)
-
- PO 2021
 - 120 (ECTS) credits
 - Duration: 4 Semesters
 - Max. duration: 7 Semesters
 - Courses in Bioinformatics, Computer Science and Life Sciences
 - Master thesis
 - 30 ECTS, 6 months
 - Thesis (27 ECTS) is jointly posed and examined by two professors, usually one from bioinformatics and one from life sciences
 - Concluded with a presentation (3 ECTS)

New enrollments in M.Sc. Bioinformatics

Variant A (# =14)

- 11 Bioinformatics
- 2 Biotechnology
- 1 Biomedical Engineering

Variant C (# = 4)

- 2 Computer Science
- 1 Applied Computer Science
- 1 Information Systems and Digital Media

Students from:

Germany, Italy, India, Spain, Lebanon,
Pakistan, Iran, China, USA, Austria

Variant B (#= 27)

- 8 Biology
- 5 Biochemistry
- 3 Biological Sciences
- 2 Biomedical Sciences
- 2 Molecular Biology
- 2 Life Science(s)
- 1 Medical Biology
- 1 Nutritional Science
- 1 Molecular Biomedicine
- 1 Molecular Cell Biology
- 1 Chemistry

Example Study Plans

- For each variant A-C, you can find an example study plan here:

<https://uni-tuebingen.de/de/176487>



Bioinformatik

 [Studienplan M.Sc. Bioinformatik Variante A Start WS2526 \(englisch\) \(PDF\)](#)

 [Studienplan M.Sc. Bioinformatik Variante B Start WS2526 \(PDF\)](#)

 [Studienplan M.Sc. Bioinformatik Variante C Start WS2526 \(PDF\)](#)

MSc Bioinformatics Variant A

For students with a BSc in Bioinformatics - International program

	ECTS
• Module Sequence Bioinformatics	9
• Module Structure Bioinformatics	9
• Seminar Bioinformatics (BIO-SEM)	3
• Studies in Practical Bioinformatics (BIO- PRAK)	6
• Studies in Bioinformatics (BIO-BIO)	15
• Studies in Practical Computer Science (INFO-PRAK)	6
• Studies in Theoretical Computer Science (INFO-THEO)	6
• Studies in Computer Science (INFO-INFO)	18
• Studies in Life Sciences (BIO-LIFE)	18
• Master thesis and presentation	30

Late arriving students should complete Sequence Bioinformatics + Practical Bioinformatics this semester

Example study plan, variant A

<i>1st semester WS25/26</i>		
lecture + tutorials	Module Sequence Bioinformatics , Lectures Monday and Wednesday 10-12, Tutorials extra time	9 ECTS
Group project	Group project, study area BIO-BIO (parallel with Sequence Bioinformatics)	3 ECTS
lecture + tutorials	Study area <i>Theoretical Computer Science</i> (INFO-THEO) or, alternatively, study area <i>Advanced Computer Science</i> (INFO-INFO) or alternatively, study area <i>Advanced Bioinformatics</i> (BIO-BIO)	6 ECTS
lecture + tutorials	Study area <i>Practical Computer Science</i> (INFO-PRAK), or alternatively, study area <i>Advanced Computer Science</i> (INFO-INFO)	6 ECTS
lecture / seminar	Study area <i>Advanced Life Sciences</i> (BIO-LIFE , Biology / (Bio)Chemistry / Pharmacy MSc courses)	6 ECTS
	Total	30 ECTS

See the study plan document for concrete suggestions for courses in CS and Life Sciences

MSc Bioinformatics Variant B

For students with a BSc in Biology (or similar) - requires both English and German

	ECTS
Foundations of Computer Science (BIO-INFO)	27
• Module Sequence Bioinformatics	9
• Module Structure Bioinformatics	9
• Seminar Bioinformatics (BIO-SEM)	3
• Studies in Practical Bioinformatics (BIO- PRAK)	6
• Studies in Bioinformatics (BIO-BIO)	15
• Studies in Computer Science (INFO-INFO)	9
• Studies in Life Sciences (BIO-LIFE)	12
• Master thesis and presentation	30

Example study plan, variant B

<i>1. Semester</i>		
Vorlesung Praktikum Seminar	Studienbereich BIO-LIFE (alle Vorlesungen des Masters aus Bio / Chemie / Biochemie o. Pharmazie sind im Prinzip belegbar, s. Empfehlungen unten)	6-12 ECTS
Vorlesung+ Übung	Intro. to Data Structures & Programming, Ossowski Studienbereich BIO-INFO	9 ECTS
Vorlesung+ Übung	Praktische Informatik 1, Ostermann, Studienbereich BIO-INFO	9 ECTS
Vorlesung+ Übung	Studienbereich INFO-INFO oder Studienbereich BIO-BIO (wenn nicht BIO-LIFE 12 ECTS belegt)	6 ECTS
	Summe	30 ECTS

See the study plan document for concrete suggestions for courses in CS and Life Sciences

MSc Bioinformatics Variant C

For students with a BSc in computer science (or similar) - requires both English and German

	ECTS
• Foundations of Life Sciences (BIO-BASIC)	24
• Module Sequence Bioinformatics	9
• Module Structure Bioinformatics	9
• Seminar Bioinformatics (BIO-SEM)	3
• Studies in Practical Bioinformatics (BIO- PRAK)	6
• Studies in Bioinformatics (BIO-BIO)	15
• Studies in Computer Science (INFO-INFO)	12
• Studies in Life Sciences (BIO-LIFE)	12
• Master thesis and presentation	30

Example study plan, variant C

<i>1. Semester (Wintersemester 2025/26)</i>		
Vorlesung+ Übung	Studienbereich Vertiefung Informatik (INFO-INFO)	6 ECTS
Vorlesung	Biomoleküle und Zelle (wenn Teil des Moduls Grundlagen LW, BIO-BASIC)	3 ECTS
Übung	Kurs Biomoleküle und Zelle für Bioinformatiker (Teil des Moduls Grundlagen LW, BIO-BASIC)	3 ECTS
Vorlesung +Praktikum	<i>Chemie (AC/OC)</i> (wenn Teil des Moduls Grundlagen LW, BIO-BASIC), <i>Vorlesung während Semester, Praktikum in vorlesungsfreier Zeit</i>	9 ECTS
	Summe	21 ECTS

See the study plan document for concrete suggestions for courses in CS and Life Sciences

Additional information

- For INFO-INFO and BIO-BIO, Bachelor's courses from the 3rd year (module numbers starting with 3) can be taken, **BUT: sum cannot exceed 18 ECTS !**

Computer Science

course enrollment: no enrollment via alma

B.Sc. Informatik (Version 2021)

100 Compulsory Area: Computer Science

INFM3110 Elective Area: Practical Computer Science

INFM3410 Elective Area: Theoretical Computer Science

INFM3310 Elective Area: Technical Computer Science

INFM2510 Elective Area: Computer Science

B.Sc. Bioinformatik (Version 2021)

100 Compulsory Area: Bioinformatics

BIOINFM6120 Professional Skills

BIOINFM2510 Elective Area: Computer Science

BIOINFM2710 Elective Area: Life Sciences

BIOINFM2210 Elective Area: Bioinformatics

BSc-BIOINFM2210-21 Veranstaltungen: Wahlpflichtfach Bioinformatik

BSc-BIO-INFO-21-VG1 B.Sc. Bioinfo Wahlpflichtfach Bioinformatik (6 CP)

BIOINF3399 Selected Topics in Bioinformatics: Analysis of Next Generation Sequencing Data with Python - Lecture/Exercise

MDZINF3310 Introduction to Statistical Machine Learning for Bioinformaticians and Medical Informaticians - Lecture/Exercise

“Grundlagen”-module Variants B / C

Master Bioinformatik

Name: _____
 Vorname: _____
 Matrikel-Nr.: _____
 Bachelor in: _____
 Name Hochschule/Studienort (Bachelor): _____

Zu Beginn des Studiums wird durch den Prüfungsausschuss für jeden Studierenden individuell zusammengestellt, welche Grundlagen-Module zu belegen sind.

Bitte ankreuzen, welche Grundlagen absolviert werden müssen.

Variante B (Bachelorabschluss in Biologie u.ä.)

Grundlagen Informatik (27 LP):

Praktische Informatik I: Deklarative Programmierung (WS) (9 LP)	
Intro. to Data Structures and Programming for Life Scientists (WS) (9 LP)	
Praktische Informatik II: Funktionale Programmierung (SS) (9 LP)	
Grundlagen der Bioinformatik (Vorl. + Übung) (SS) (9 LP)	
Algorithmen (WS) (9 LP)	
Theoretische Informatik (SS) (9 LP)	
Datenbanksysteme 1 (WS) (9 LP) nur in begründeten Ausnahmefällen	

Variante C (Bachelorabschluss in Informatik u.ä.)

Grundlagen Lebenswissenschaften (24 LP):

Biomoleküle und Zelle (Vorl. + Praktikum) (WS) (6 LP)	
Genetik und Molekularbiologie (Vorlesung) (WS) (6 LP)	
Chemie I (Vorl. Anorg.u.Org + Praktikum) (WS) (9 LP)	
Allgemeine Biochemie (Vorlesung) (SS) (3 LP)	
Physikalische Chemie (Vorl. + Praktikum) (WS) (6 LP)	
Tierphysiologie (Vorlesung) (WS) (3 LP)	
Grundlagen der Bioinformatik (Vorl. + Übung) (SS) (9 LP)	

Bitte unbedingt ausfüllen!

Leistungen, die bei Anmeldung der Master-Arbeit erbracht sein müssen:

Only variants B and C will receive this document.

Please fill in your data and the courses you want to attend for the “Grundlagen” module.

Variant B usually chooses:

- Praktische Informatik I (winter)
- Introduction to Data Structures (winter)
- Grundlagen der Bioinformatik (summer)

Variant C usually chooses:

- Biomoleküle und Zelle (winter)
- Genetik und Molekularbiologie (winter)
(used to be: Molekulare Biologie 1)
- Allgemeine Biochemie (summer)
- Grundlagen der Bioinformatik (summer)

* Lectures very similar. Only one can be attended.

Life Sciences (BIO-LIFE)

Please note that courses offered in the field of Life Sciences are **not all listed under the BIO-LIFE category in Alma**, as the range of offerings is too large.

Also, please be aware that (unfortunately) many biology lectures are only offered as **block courses**.

Students may attend lectures or seminars (but not lab courses) in **biology** from the **3rd year of the bachelor's program onwards**, as well as all courses in the **master's program**, including master's-level courses in **chemistry, biochemistry, and pharmacy**.

Please note that courses in these areas that cover topics such as bioinformatics, mathematics, computer science, or similar subjects (e.g., *Bioinformatics Methods in Microbiology*, *Matlab for Biologists*, etc.) **cannot** be counted by bioinformatics master's students toward fulfilling the "Advanced Life Sciences" (BIO-LIFE) study area or any other study areas of the master's program.

Additional information

What about math-lectures ?

Lectures on mathematics (in computer science) are highly recommended, especially the one on linear algebra (i.e. Mathematics for Computer Science 2: Linear Algebra, offered every summer semester).

However, this cannot be credited towards the Master's degree.

For bridging gaps, there is the **Online Mathematik Brückenkurs OMB+**
<https://uni-tuebingen.de/de/217761>

as well as: **Online course Mathematics In Advanced Studies (OMIAS):**
<https://omias.mumie.nethttps://omias.mumie.net/omias/public/index.html>

Additional information

What about math-lectures ?

- Fundamentals
- One-dimensional analysis
- Linear Algebra
- Ordinary differential equations

Materials are available in German and in English:

<https://omias.mumie.net>

Welcome to Tübingen and
good luck
with your
studies!