

German-Czech Joint Study Programme leading to the issuance of a double degree
University of Passau and Charles University Prague

M.Sc. Computer Science – Magistr (Mgr.) Computer Science – Software and Data Engineering

Inhalt

Overview of the Joint Study Programme	2
Information on application and enrolment	2
Application and selection process at the University of Passau.....	2
Enrolment.....	2
Practical information about your stay abroad in Prague	3
Scholarships.....	3
Study organisation	3
Specialisations and course selections	3
Common requirements	3
Requirements of the University of Passau	3
Requirements of Charles University.....	3
Minimum award requirements.....	4
Diploma thesis / Master's thesis	4
Master's thesis defence and final state examination	4
Degrees / Certificates.....	5
Regulations and module catalogue.....	5
Local academic coordinators	5
Sample course of study	6

Overview of the Joint Study Programme

The University of Passau offers the opportunity to apply for the English-taught, German-Czech Joint Study Programme (Double Master) in cooperation with the Charles University in Prague as part of the Master's degree programme in Computer Science.

Computer Science – Software and Data Engineering is a two-year Master's joint programme with the common curriculum taught jointly at Charles University, Faculty of Mathematics and Physics by the members of its School of Computer Science and at the University of Passau, Faculty of Computer Science and Mathematics.

Graduates of this programme have acquired knowledge of software engineering, software development, Web engineering, database systems and Big Data processing, allowing them to work in a wide variety of fields of computer science in an international environment. The study programme aims at expertise in the analysis, design and development of complex software solutions and systems focused on Big Data processing. The portfolio of courses provided covers several technological platforms, from classic, web-based to modern cloud and distributed solutions.

After successfully completing the Joint Study Programme, students receive two Master's degree certificates from both partner universities, which refer to each other. At the University of Passau, students graduate with an M.Sc. in Computer Science. At the Charles University in Prague, they graduate with the Magistr (Mgr.) Computer Science – Software and Data Engineering.

Information on application and enrolment

Start of the Joint Study Programme: usually in the winter semester

Application and selection process at the University of Passau

To be accepted into the Joint Study Programme, you must apply in two stages:

1. Apply for the regular M.Sc. Computer Science programme

[Entry requirements, how to apply, application deadlines](#)

2. Apply for the Joint Study Programme

Application deadline: 15th April

Required documents:

Please submit the following documents in English:

- Detailed CV,
- Letter of motivation,
- *Studienverlaufsbescheinigung* (confirmation of periods of study),
- Certificate of your first university degree,
- Transcript of records (overview of academic achievements in the Master's programme to date).

Please send your **application as a joint PDF-Document** to: joint-study-programme-prague@uni-passau.de

The participating students in the Joint Study Programme will be selected by the programme coordinators by mid-May. Participants are selected based on their prior academic performance, including the courses studied so far in the Master's programme and their motivation to participate in the Joint Study Programme. Special achievements reflected in the candidate's curriculum vitae are also taken into consideration. **Five** students can participate per year.

Enrolment

Following your successful selection, the International Office of the University of Passau will nominate you at the partner university. You will then be contacted by the partner university with further instructions on the enrolment procedure.

Participants in the Joint Study Programme must be enrolled at both the University of Passau and Charles University in Prague for the duration of the programme in accordance with their applicable rules.

Semester fees

No tuition fees are charged by the respective partner universities within the framework of the Joint Study Programme. Passau students pay the [semester fees of the University of Passau](#) for the entire duration of their studies (1st-4th semester). In addition, students are required to pay the semester fees of Charles University in Prague for the duration of the stay there.

Practical information about your stay abroad in Prague

Charles University offers accommodation for incoming students in local halls of residence (usually at the 17. Listopadu dormitory).

You can find a lot of information about your stay in Prague on the [website of Charles University](#) (e.g. accommodation, orientation events).

Contact: [International Office of Charles University Prague](#)

Scholarships

At the same time as applying for a place on the Joint Study Programme, candidates can also apply for the [Erasmus+ scholarship programme](#).

Alternatively, the Bavarian-Czech University Agency (BTHA) also awards mobility grants [[Mobilitätsbeihilfen](#)] or [scholarships](#) on a small scale for study visits to the Czech Republic. [Political foundations](#) and the [DAAD](#) also offer further funding opportunities.

Study organisation

The Joint Study Programme usually begins in the winter semester.

Students spend the first and second semesters at their home university. They complete the third and fourth semesters at the partner university.

Specialisations and course selections

Students attend courses totalling 120 ECTS credits. These are divided into compulsory modules and compulsory elective modules as well as the Master's thesis and its presentation (27+3 ECTS credits).

The minimum requirements for ECTS credits are as follows:

Common requirements:

- At least 120 ECTS credits in total.
- At least 45 ECTS credits to advance to the second year.
- At least 30 ECTS credits (excluding the ECTS credits for the Master's thesis) from courses of each partner.

Requirements of the University of Passau:

- At least 40 ECTS credits for **Programming and Software Systems (ProgSoft)** or **Information and Communication Systems (InfKomm)** courses and
- at least 30 ECTS credits for courses outside ProgSoft/InfKomm (excluding the ECTS credits for the Master's thesis).

Requirements of Charles University:

At least 50 ECTS credits for the compulsory elective courses (i.e., ProgSoft and InfKomm courses). These are courses where students can choose from different modules.

In order to attain degree certificates from both Universities, you must meet all the requirements of both universities.

Minimum award requirements

Compulsory modules

In order to attain degree certificates from both Universities, you must pass the compulsory modules specified by each University.

Compulsory modules at Charles University

Modules with equivalences are marked with an asterisk (*)

Code	Title	ECTS credits	Semester
NTIN090	Introduction to Complexity and Computability (*)	4	winter
NTIN066	Data Structures 1	6	summer
NSZZ023	Diploma Thesis I (*)	6	winter/summer
NSZZ024	Diploma Thesis II (*)	9	winter/summer
NSZZ025	Diploma Thesis III (*)	15	winter/summer
NPRG081	International Research Project	6	winter/ summer

Compulsory modules at University of Passau

Modules with equivalences are marked with an asterisk (*)

Code	Title	ECTS credits	Semester
450001	Seminar	5	winter/summer
458999	Presentation of the Master's Thesis (*)	3	winter/summer
459900	Master's Thesis in Computer Science (*)	27	winter/summer

Equivalences:

Equivalent modules or module combinations share more than 70% of the content and thus can be applied interchangeably (but each student can register for one of the equivalent courses only). These courses must be taken either at the home university or at the partner university.

Charles University			Equiva- lent to	University of Passau		
Code	Title	ECTS credits		Code	Title	ECTS credits
NTIN090	Introduction to Complexity and Computability	4	Module	482211	Computational Complexity Theory	9
NSZZ023	Diploma Thesis I	6	Module combination	459900	Master's Thesis in Computer Science	27+3
NSZZ024	Diploma Thesis II	9		458999	Presentation of the Master's Thesis	
NSZZ025	Diploma Thesis III	15				

Diploma thesis / Master's thesis

The final thesis of the Joint Study Programme is called "Master's thesis" in Passau and "Diploma thesis" in Prague. Both terms are used equivalently. Students choose the thesis topic preferably at the host university in Prague. The thesis is written in English under the joint supervision of a supervisor and consultant from both partners.

The thesis must be submitted and defended according to the regulations of the partner universities where the thesis was registered.

Master's thesis defence and final state examination

The studies are successfully completed by passing a final oral examination. In Prague, this is called the final state examination. You may register for the final state examination after completing at least 90 ECTS credits fulfilling the minimum requirements, and successfully submitting your Master's thesis.

The final state examination is performed in front of a committee consisting of members proposed jointly by both universities. The examination will consist of

- (1) a Master's thesis defence,
- (2) an oral examination.

The student must successfully pass both parts to finish their studies.

The oral examination will take place immediately after the successful defence of the Master's thesis. It will be implemented in the form of an expert discussion on topics closely related to the topic of the presented thesis.

Final grade

The quality of the thesis and the correctness of the answers to the committee's questions are graded independently. A comprehensive final grade is awarded on the basis of the two partial grades. The ECTS credits for the Master's thesis will be given after the successful defence of the thesis, prior to the oral examination.

Resits

A student is entitled to one regular attempt and maximum of two retake attempts of the final state examination.

Degrees / Certificates

You will receive two Master's degree certificates, each of which refers to the other:

- University of Passau: **M.Sc. Computer Science**
- Charles University Prague: **Magistr (Mgr.) Computer Science – Software and Data Engineering**

Regulations and module catalogue

- [General study and examination regulation \(AStuPO\)](#) for the faculty's Master's programmes
- [Subject-specific study and examination regulation \(FStuPO\)](#) for the degree programme.
- [Module catalogue](#)

Local academic coordinators

University of Passau

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Sample course of study

The complete list of eligible modules, including equivalence tables, can be found in the [module catalogue](#). The following table is an example.

Let us consider a student who wants to specialise in software engineering, which is covered mainly by the **ProgSoft** group. If the student starts studying at the University of Passau, their course of study could be as follows:

University of Passau: 1st year – winter semester

Code	Title	ECTS credits	Semester	Module Group
450001	Seminar	5	winter/ summer	-
455420	Reproducibility Engineering	6	winter	InfKomm
453010	Research Seminar for the Focus “Programming Methods and Software Systems”	5	winter/ summer	ProgSoft
455378	Search-Based Software Engineering	6	winter	ProgSoft
455418	Reverse and Reengineering	6	winter	ProgSoft
	TOTAL	28		

University of Passau: 1st year – summer semester

Code	Title	ECTS credits	Semester	Module Group
451006	Safety and Security of Critical Infrastructures	6	summer	InfKomm
405236	Methodological Foundations of Distributed Systems	6	summer	InfKomm
405031	Multimedia Databases	7	summer	InfKomm
455368	Software Analysis	6	summer	ProgSoft
455424	Engineering Dependable Software	6	summer	ProgSoft
	TOTAL	31		

Charles University: 2nd year – winter semester

Code	Title	ECTS credits	Term	Module Group
NTIN090	Introduction to Complexity and Computability	4	winter	-
NPRG081	International Research Project	6	winter/ summer	-
NSZZ023	Diploma Thesis I	6	winter/ summer	-
NSWI166	Introduction to recommend. systems and user preferences	4	winter	InfKomm
NSWI130	Software System Architectures	5	winter	ProgSoft
NTIN043	Formal Foundations of Software Engineering	5	winter	ProgSoft
	TOTAL	30		

Charles University: 2nd year – summer semester

Code	Title	ECTS credits	Semester	Module Group
NTIN066	Data Structures 1	6	summer	-
NSZZ024	Diploma Thesis II	9	winter/ summer	-
NSZZ025	Diploma Thesis III	15	winter/ summer	-
NSWI126	Advanced Tools for SW Development. and Monitoring	2	summer	ProgSoft
	TOTAL	32		