

Admission Criteria for study at the Faculty of Informatics MU

Programme type: **Follow-up Master's
(accredited in English language)**

Valid for academic year: **2025/2026**

Requirements for programmes accredited in English:

- **Software Systems and Services Management**
- **Computer Systems, Communication and Security**
- **Visual Informatics**

The applicants are obliged to submit all these documents (in electronic form):

- Completed application (<http://is.muni.cz/prihlaska/>).
- Curriculum vitae.
- Diploma/statement of expected graduation (at least) at Bachelor degree from an accredited university including at least three full years of academic study (a minimum of 180 ECTS or equivalent).
- Diploma supplement/transcript.
- List of select computer science/math courses (with detailed syllabuses).
- Proof of English language at least at B2 level¹.
- Motivation letter (related to the programme of choice).
- Essay (related to the programme of choice).
- Own academic work/publication (e.g. bachelor, diploma thesis).
- Copy of passport.
- If applicable, documentation of change of name (e.g., marriage certificate).
- Two references on an official headed paper, one of which should be an academic reference.

¹ English knowledge at least at B2 level

- TOEFL: paper-based 563 points, internet-based 85 points;
- IELTS: 6.5 (with no individual score below 5.5);
- PTE 58;
- Cambridge ESOL examinations - CAE (A or B), CFE (grade A), CPE (A, B or C), or 180 (176) points as a minimum on the Cambridge English Scale;
- Exemption from English certificate - students who have completed their education in Canada (except Quebec), USA, UK, Ireland, New Zealand or Australia,
- the official confirmation from your university stating that your previous bachelor study was held in English accompanied by the online Duolingo English Test <https://englishtest.duolingo.com/home> results with the minimum score 115 points.

Submitted documents will be evaluated according to the following scoring system:

Evaluated component	Max points
List of selected computer science/math courses The applicant declares the completion of selected courses tightly connected to computer science and mathematics. The applicant should fill in the form titled "Curriculum analysis" attached to the end of this document.	50
Motivation letter Original authorial work of length up to one A4 page. The use of AI is strictly forbidden.	10
Essay Original authorial work of length up to one A4 page. The use of AI is strictly forbidden.	10
Study results An excellent or near-excellent performance is expected and shall be documented by at least one of the following means: <ul style="list-style-type: none"> • percentile 75, based on evaluation of all students in the previous programme, • GPA 3.0 or higher, for a 4-point GPA, • GPA 4.0 or higher, for a 5-point GPA, • study average grade B or better on the ECTS scale, • study average 2.0 or lower on the 1-4 scale. 	20
Own academic work/publication Bachelor/Diploma thesis or published conference/journal paper.	10

The total number of points is decisive for the subsequent decision on admission, invitation to take the entrance exam or interview according to the following table:

Received points	Decision
0 - 49	Entrance exam required
50 - 69	Conditional acceptance (on-line discussion required)
70 - 100	Accepted (entrance exam waiver)

Deadlines for application submission:

All submitted and paid applications, which contain all required attachments, will be continuously evaluated within one month from the set date. The dates for the evaluation of complete applications are:

The study from autumn 2025 15. 1. 2025, 15. 2. 2025, 15. 3. 2025, 15. 4. 2025.

The study from spring 2026 15. 7. 2025, 15. 8. 2025, 15. 9. 2025, 15. 10. 2025.

Entrance exams dates:

The study from autumn 2025:
The study from spring 2026:

June 2025
end of January/beginning of February 2026

Form of the entrance exams

The entrance tests examine the applicant's ability to study a follow-up Master's programme at the Faculty of Informatics MU successfully. Multiple-choice test consists of questions concerning basic knowledge in Computer Science and in Mathematics, and it takes the form of single-choice from the five options offered. The correct answer is attributed to one point, the incorrect answer is deducted by 0.25 points; for multiple selected answers or no answer counts zero points.

Thematic areas of the entrance exam

Area of Computer Science

1. Algorithms and data structures (algorithm complexity, sorting algorithms, basic abstract data structures and their implementation).
2. Programming (coding and interpretation of a program in a common imperative programming language or pseudocode, principles of object-oriented programming, main principles of imperative and object-oriented programming languages) and the basics of software engineering.
3. Databases (relational data model, normal forms, SQL).
4. Computer Networks (connectionless networks, ISO OSI and TCP/IP models, functions, addressing and basic protocols of particular levels, switching and routing in an IP network).
5. Principles of computer systems (numerical systems in computer practice, processors, memories, operating system, peripheral devices, basic logic circuits).

Area of Mathematics

6. Graphs and graph algorithms (chart types and data structures, spacing in charts, chart connectivity, trees, chart searching, chart frame).
7. Sets, relations, functions (Cartesian product, power set, arrangement, equivalence, bijection) and logic (propositional and predicate logic, syntax and semantics, feasibility, equivalence of formulas).
8. Mathematical analysis (function analysis, limits, derivations, integrals).
9. Linear algebra (operations with matrices, linear mapping, solutions of systems of linear equations).

10. Probability and descriptive statistics (elementary combinatorics, conditional probability, distribution of random variables, mean value, median, dispersion, correlation).

Assessment of the entrance exams

The determining factor for success in entrance exams is the percentile calculated on the basis of the sum of the number of points obtained in both entrance tests. The percentile expresses how many percent of the applicants have lower or equal performance.

Estimated number of admitted students

Study programme	Study beginning	Number of students
- Software Systems and Services Management - Computer Systems, Communication and Security - Visual Informatics	autumn 2025	150
- Software Systems and Services Management - Computer Systems, Communication and Security - Visual Informatics	spring 2026	150

Curriculum analysis

Computer science		
Course	Code	Corresponding course in applicant's transcript
Computer architecture	PB150	
Object oriented programming	PB006	
Database systems	PB154	
Formal languages and automata	IB005	
Machine learning	IB031	
Operating systems	PB152	
Computer networks	PB156	
Software engineering	PB007	
Algorithms and data structures	IB002	
Mathematics		
Course	Code	Corresponding course in applicant's transcript
Linear algebra	MB151	
Discrete mathematics	IB000	
Probability and statistics	MB153	
Calculus	MB152	