

List of Doctoral Programme Course Units
for the doctoral study programme

Information Technologies

(valid from the academic year 2025/26)

Compulsory Course Units

Course Unit	Garant Lectures, alternative examiners
English Language Angličtina	<u>Ing. Dagmar Svobodová, MSc.</u>
Mathematics Matematika	<u>Prof. Ing. Roman Prokop, CSc.</u> RNDr. Martin Fajkus, Ph.D. Ing. Pavel Martinek, Ph.D. Mgr. Jana Řezníčková, Ph.D.
Modern Theory of Information Moderní teorie informatiky	<u>Prof. Ing. Roman Šenkeřík, Ph.D.</u> Prof. Mgr. Roman Jašek, Ph.D., DBA
Research Methodology Metodologie vědecké práce	<u>Assoc. Prof. Ing. Bronislav Chramcov, Ph.D.</u>

Compulsory Elective Course Units ¹

Course Unit	Garant Lectures, alternative examiners
Selected Software Engineering Methods Vybrané metody softwarového inženýrství	<u>Assoc. Prof. Ing. Zdenka Prokopová, CSc.</u> Prof. Mgr. Roman Jašek, Ph.D., DBA Assoc. Prof. Ing. Radek Šilhavý, Ph.D.
Selected Optimization Methods Vybrané optimalizační metody	<u>Prof. Ing. Roman Prokop, CSc.</u> Assoc. Prof. Ing. Libor Pekař, Ph.D.
Modern Database Techniques Moderní databázové techniky	<u>Assoc. Prof. Ing. Zdenka Prokopová, CSc.</u> Assoc. Prof. Ing. Petr Šilhavý, Ph.D.
Modelling and Simulation of Continuous Systems Modelování a simulace spojitých systémů	<u>Assoc. Prof. Ing. František Gazdoš, Ph.D.</u> Assoc. Prof. Ing. Jiří Vojtěšek, Ph.D.

¹ The student chooses subjects from a set of compulsory elective course units following the topic of his/her dissertation.

Bioinspired Optimisation Methods Bioinspirované optimalizační metody	<u>Prof. Ing. Roman Šenkeřík, Ph.D.</u> Prof. Ing. Zuzana Oplatková Komínková, Ph.D.
Discrete Event Simulation Simulace diskrétních událostí	<u>Assoc. Prof. Ing. Bronislav Chramcov, Ph.D.</u> Assoc. Prof. Ing. Lubomír Vašek, CSc.
Multimedia Data Processing Zpracování multimediálních dat	<u>Prof. Ing. Zuzana Oplatková Komínková, Ph.D.</u> Prof. Ing. Roman Šenkeřík, Ph.D.
Advanced Signal Processing Pokročilé zpracování signálů	<u>Prof. Ing. Marek Kubalčík, Ph.D.</u> Assoc. Prof. RNDr. Vojtěch Křesálek, CSc.
Advanced Technologies of Information and Communication Systems Pokročilé technologie ochrany informačních a komunikačních systémů	<u>Prof. Mgr. Roman Jašek, Ph.D., DBA</u> Prof. Ing. Roman Šenkeřík, Ph.D. Ing. David Malaník, Ph.D.
Science of Cyber Security Kybernetická bezpečnost	<u>Prof. Mgr. Roman Jašek, Ph.D., DBA</u> Prof. Ing. Roman Šenkeřík, Ph.D.
Systems Engineering Metody systémového inženýrství	<u>Prof. Mgr. Roman Jašek, Ph.D., DBA</u> Assoc. Prof. Ing. Bronislav Chramcov, Ph.D. Ing. Radek Vala, Ph.D.
Advanced Concepts of Classification and Datamining Pokročilé koncepty klasifikace a datové analýzy	<u>Prof. Ing. Zuzana Oplatková Komínková, Ph.D.</u> Prof. Ing. Roman Šenkeřík, Ph.D.
Modern Network Technologies and Operating Systems Moderní síťové technologie a operační systémy	<u>Assoc. Prof. Ing. Martin Sysel, Ph.D.</u> Assoc. Prof. Ing. Jiří Vojtěšek, Ph.D.
Hardware, Interface and Programming Environment Hardware, rozhraní a jejich programové prostředí	<u>Assoc. Prof. Ing. Martin Sysel, Ph.D.</u> Assoc. Prof. Ing. Martin Pospíšilík, Ph.D. Ing. Tomáš Dulík, Ph.D.
Selected Subject of Specialization ² Předmět oboru	<u>Chair of Doctoral Studies Program Board</u> The examiner will be appointed by the chair of DSPB

NOTE: In the event of a possible conflict of interest between available examiners for a given subject (supervisor, consultant, relative, etc.), or long-term absence of examiners for a given subject, the DSP guarantor may assign another academic staff member to conduct the examination. The reason for the change of examiner is stated in the examination record (including statements from relevant persons).

² The subject of study proposed by the supervisor and approved by the chairman of the doctoral study program board (subject that is part of an accredited DSP at another university in the Czech Republic or abroad).