COLLEGIUM DA VINCI

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STUDY PROGRAMME

Information Technology

Level of studies
First-cycle degree programme

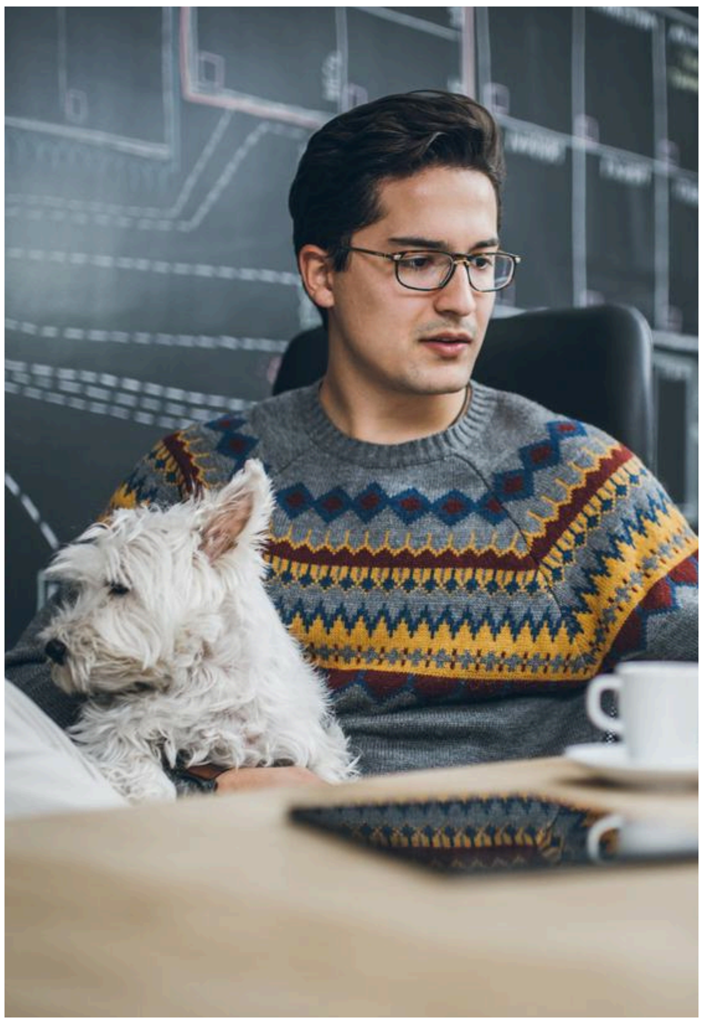
Title
Engineer's degree

Language of instruction
English

Study mode
Full-time

Duration
3,5 years

Programme cycle
2025 - 2028



Interdisciplinary modules

7 modules | 221 hours

This is a general education block. It will provide you with the very universal competences that nowadays no good professional can do without, regardless of the business sector. These include: 2 individual predisposition and talent tests, tutoring (i.e. mentoring in development), a foreign language of your choice

Area: general knowledge and competences

Profile: common to all undergraduate students

Status: compulsory, according to the list

Number of hours: 221 (full-time)

Duration: 1-4 semester

Go to these modules

Study programme modules

23 modules | 1150 hours

This is a set of practical subjects closely related to the course you are studying. A solid core curriculum that will provide you with the latest knowledge and key skills needed in the industry.

Area: industry-specific knowledge and competences

Profile: common to all students in this course

Status: compulsory, as listed

Number of hours: 1150 (full-time)

Duration: 1-7 semester

Go to these modules

Total number of hours: 2992
*including 60 hours of physical education

Details of the number of hours are available in the **BIP (Public Information Bulletin).**

Elective modules

12 modules | 600 hours

This is a set of subjects that you choose by yourself - according to your needs and interests. You have dozens of subjects at your disposal - both in disciplines directly related to your field of study and interdisciplinary. They allow you to determine the content of your own education.

Area: Branch-related and interdisciplinary knowledge and competences

Profile: individual for each student

Status: individually selected from a list*

Number of hours: 600 (full-time)**

Duration: 1-7 semester

*Each academic year the list of available modules is slightly different. We modify it for our students in response to the popularity of their chosen subjects and changing market trends.
**During your studies you choose 12 modules, each of 5 ECTS credits

Go to these modules

Internships

2 modules | 961 hours

Full-time student internship in a company of your choice. Essential and highly valuable experience on your educational path. Your first steps in your profession under the guidance of more experienced colleagues in the industry.

Area: practical work experience

Profile: individual for each student

Status: individually selected*

Number of hours: 961 (full-time)

Duration: 2-6 semester

*You will be assisted in gaining them by the university's Career Office, which will facilitate your contact with companies cooperating with the university.

Go to these modules

Total number of hours: 2992
*including 60 hours of physical education

Details of the number of hours are available in the **BIP (Public Information Bulletin).**

		Name of the subject / course	Credit	Semester	ECTS	Teaching hours Total
1		Introduction to Study	Z	1	1	5
	1	Safety	Z			3
	2	Using Library	Z			2
2		Tutoring 1	Z	1	4	20
	1	Group Tutoring	Z			12
	2	Individual Tutoring	Z			8
3		Integration Week	Z	1	1	25
	1	Integration week	Z			25
4		Foreign Language 1	O	2	5	50
	1	Foreign Language	O			40
	2	Foreign Language e-learning	Z			10
5		Tutoring 2	Z	2	4	21
	1	Group Tutoring	Z			12
	1	Individual Tutoring	Z			9
6		Foreign Language 2	O	3	5	50
	1	Foreign Language	O			40
	2	Foreign Language e-learning	Z			10
7		Foreign Language 3	E	4	5	50
	1	Foreign Language	E			40
	2	Foreign Language e-learning	Z			10

Z — credit | E — examination | O — grade

Study programme modules

		Name of the subject / course	Credit	Semester	ECTS	Teaching hours Total
1		Algorithms and Data Structures	O	1	5	50
	1	Algorithms and Data Structures - lecture	Z			20
	2	Algorithms and Data Structures - laboratory	O			30
2		Mathematics for IT specialists	O	1	5	50
	1	Mathematical Analysis	O			20
	2	Linear Algebra	O			10
	3	Probability	O			20
3		Introduction to Programming	O	1	5	50
	1	Mathematical Basics of Programming	O			10
	2	Introduction to Programming - lecture	Z			10
	3	Introduction to Programming - laboratory	O			30
4		Introduction to ICT	O	1	5	50
	1	Introduction to ICT - lecture	Z			10
	2	Introduction to ICT - laboratory	O			25
	3	Logic and Set Theory	O			15
5		Databases	O	2	5	50
	1	Database Systems - lecture	Z			20
	2	Database Systems - laboratory	O			30
6		Operating Systems	O	2	5	50
	1	Operating Systems - lecture	O			20
	2	Operating Systems - laboratory	O			30
7		Object-Oriented Programming	O	2	5	50
	1	Object-Oriented Programming - lecture	Z			15
	2	Object-Oriented Programming - laboratory	O			35
8		Structured programming	O	2	5	50
	1	Low-level programming - laboratory	O			25
	2	Systems programming - laboratory	O			25
9		Machine learning in Python	O	2	5	50
	1	Machine learning in Python - lecture	Z			10
	2	Machine learning in Python - laboratory	O			40
10		Content Management Systems (CMS)	O	3	5	50
	1	Content Management Systems (CMS) - lecture	Z			10
	2	Content Management Systems (CMS) - laboratory	O			40
11		IT project management	O	3	5	50
	1	Theoretical foundations of IT project management - lecture	Z			6
	2	IT project management as teamwork - laboratory	O			44
12		Software Engineering	O	3	5	50
	1	Software Engineering - lecture	O			20
	2	Software Engineering - laboratory	O			30

Z — credit | E — examination | O — grade

Name of the subject / course			Credit	Semester	ECTS	Teaching hours
						Total
13	Computer Networks		O	3	5	50
	1	Computer Networks - lecture	Z			20
	2	Computer Networks - laboratory	O			30
14	Security Foundations		O	4	5	50
	1	Number Theory in Security	O			10
	2	Security Foundations - lecture	Z			20
	3	Security Foundations - laboratory	O			20
15	Internet Technologies		O	4	5	50
	1	Internet Technologies - lecture	O			15
	2	Internet Technologies - laboratory	O			25
	3	UI/UX Design for Web Applications	O			10
16	Introduction to Embedded Systems		O	4	5	50
	1	Introduction to Electronics - lecture	O			15
	2	Introduction to Electronics - laboratory	O			15
	3	Programmable Logic Devices - lecture	O			5
	4	Programmable Logic Devices - laboratory	O			15
17	Computer Architecture		O	5	5	50
	1	Computer Architecture	Z			15
	2	Computer Architecture and Distributed Processing - laboratory	O			35
18	Mobile Applications		O	5	5	50
	1	Basics of Mobile Applications for the Android Platform	Z			20
	2	Mobile Application Design	O			30
19	Artificial Intelligence		O	5	5	50
	1	Artificial Intelligence - lecture	Z			20
	2	Artificial Intelligence - laboratory	O			30
20	Big Data		O	6	5	50
	1	Big Data - lecture	Z			15
	2	Big Data - laboratory	O			35
21	Diploma Team Project 1		O	6	5	50
	1	Diploma Seminar 1	Z			10
	2	Diploma Team Project 1	O			40
22	IoT and Cloud Computing		O	6	5	50
	1	IoT and Cloud Computing - lecture	Z			15
	2	IoT and Cloud Computing - laboratory	O			35
23	Diploma Team Project 2		O	7	5	50
	1	Diploma Seminar 2	Z			10
	2	Diploma Team Project 2	O			40

Z — credit | E — examination | O — grade

Elective modules proposed in the academic year 2024/2025

Digital immersion	Symfony framework: from scratch to REST API	Modern Advanced JavaScript / TypeScript
UX/UI - design process of digital products	Content Management System	The Modelling Toolbox
IT Project management	Advanced Object Oriented Programming	Boardoom Global Challenge
Advanced Artificial Intelligence	Basics of Accelerating Applications with NVIDIA CUDA in C/C++	Sound implementation
Music in video game	Excel 365 for programmers and analysts	Concurrent programming
Building single page applications	Advanced mobile application development	Sound impelementation / Consumer Decision-Making Psychology

You can find a detailed list of elective modules from last academic year **HERE**

Internships

	Name of the subject / course	Credit	Semester	ECTS	Teaching hours Total
1	Introduction to Internships	Z	2	1	1
1	Introduction to Internships	Z			1
2	Internship	Z	6	33	960
1	Internship	Z			960

Physical education

You definitely won't be without PE classes as well. You'll take a total of 60 hours of physical education classes in semesters 1 and 2. You'll have a choice of gym, spinning, yoga, squash, table tennis - depending on your strength and mood.

Are you looking for additional and more detailed information?

Details of the number of hours are available in the **BIP (Public Information Bulletin).**