

Artificial intelligence and data science

Type:
Undergraduate (Bachelor)

Field of study:
**Computer Science
(Informatics)**

Duration of study:
4 years (8 semesters)

Mode:
full-time | online

Language:
Polish | English



Obtained title:
engineer

Why You should choose this study programme?

Artificial intelligence is ubiquitous in our lives. It is used in everyday life, in education, medicine and many other areas of life. Artificial intelligence helps manage our homes, diagnose illnesses, perform surgeries, and shop.

What's more – the AI created the trailer for "Morgan" and even wrote the script for the film, which won a Sci-Fi London award! There is no denying that artificial intelligence and data science are not just the future, they are the present.

What You can do after this study programme



Artificial intelligence and data science is a rapidly growing area of IT, which already finds its application in almost every area of life. After graduation, you will be prepared to conduct tasks in the field of data science, and will be able to apply the latest innovations in artificial neural networks and modern deep learning methods. You can gain employment as an artificial intelligence solutions developer in IT corporations, as well as an artificial intelligence specialist in IT departments in the medical, education, creative, finance and many other business areas.

This programme is for You, if:

Artificial intelligence is an area you want to explore and develop

You are interested in technology news

You understand new technologies and want to build a professional career in IT



Degree programme and study structure

ARTIFICIAL INTELLIGENCE
AND DATA SCIENCE

Study last 4 years (8 semesters), are worth of 240 ECTS credits, end with a Professional Engineering degree.

The curriculum covers the most important key areas of computer science and a wide selection of specialization tracks. A special feature of the program at UEHS is that each student has the opportunity to choose at least 2 specialties that they would like to complete.

FIRST YEAR OF STUDY

The first year of studies is dominated by subjects which, irrespective of the chosen field of study, provide a broad horizon of thinking and an understanding of the concepts and basic issues in a given field of science. As a result, you will acquire knowledge and skills that will make it easier for you to find your place in many different professional areas in the future and prepare you to undertake interdisciplinary projects, which is nowadays particularly important and appreciated on the job market. Beginning in the second semester, classes introduce content specific to the Computer Science major in increasing detail.

FIRST SEMESTER

SUBJECT NAME	ECTS	LECTURE METHOD	AMOUNT OF HOURS (ST/NST)
BASIC OF PROGRAMMING	7	L, D	75/40
GRAPHICS AND HUMAN-COMPUTER COMMUNICATION	7	L, D	60/32
DESIGNING WEBSITES	4	D	30/16
BASIC OF E-LEARNING	2	L, D	16/8
MATHEMATICS FOR COMPUTER SCIENTISTS	8	L, D	75/40
OHS	0	E	8/4
ACADEMIC SKILLS	2	L	15/8

SECOND SEMESTER

SUBJECT NAME	ECTS	LECTURE METHOD	AMOUNT OF HOURS (ST/NST)
ELECTRONICS FOR COMPUTER SCIENTISTS	5	L, D	60/32
DISCRETE MATHEMATICS	6	L, D	70/40
ELEMENTS OF MODERN PHYSICS	5	L, D	48/28
ALGORITHMS AND COMPLEXITY	6	L, D	75/40
COMPUTER SYSTEMS ARCHITECTURE	6	L, D	60/40

SECOND YEAR OF STUDY

In the second year, subjects concentrating on the chosen field of study are introduced into the programme. They enable students to deepen their knowledge and acquire competences necessary for understanding and practical use of IT knowledge in various spheres of professional activity. Specialized subjects are also introduced from the 4th semester onwards. Before you start learning mobile app design, you can choose one of two additional specializations that will broaden your professional profile:

Web application

Whether you want to work in a startup, a software house, or a corporation, you'll find plenty of opportunities to develop web applications in IT. This kind of work is in fact divided into two main roles – frontend, that is work on the visual layer, implementation of graphic layouts and coordination of application behavior, and backend – activities “behind the scenes”, in the server part, where the main role is played by efficient data processing, ensuring security and scalability of created applications.

Project management and user experience

Working in the IT sector is not just about programming and technology! It is difficult to imagine effective implementation of IT projects without an effective-Project Manager. And even the best programmers won't create a great application if it is prepared by proper understanding of users' needs – and this is what UX/UI designer does. If you want to work in IT, and at the same time you feel great working with people – this specialization is for You!

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AND DATA SCIENCE

THIRD SEMESTER

SUBJECT NAME	ECTS	LECTURE METHOD	AMOUNT OF HOURS (ST/NST)
PROGRAMMING LANGUAGES AND PARADIGMS	8	L, D	75/40
DATABASES	7	L, D	60/32
OPERATING SYSTEMS	6	L, D	60/32
NETWORK TECHNOLOGIES	6	L, D	60/32

FOURTH SEMESTER

To choose one of the two specialization path.

WEB APPLICATIONS

SUBJECT NAME	ECTS	LECTURE METHOD	AMOUNT OF HOURS (ST/NST)
EMBEDDED SYSTEMS	5	L, D	45/24
SOFTWARE ENGINEERING	6	L, D	45/24
OBJECT-ORIENTED PROGRAMMING IN JAVASCRIPT	5	L, D	45/24
CREATING WEB SERVICES IN REST	4	D	30/16
ARCHITECTURE MVC IN WEB APPLICATION DEVELOPMENT	4	D	30/16
STUDENT APPRENTICESHIPS	4	OW	100/100

PROJECT MANAGEMENT AND USER EXPERIENCE			
SUBJECT NAME	ECTS	LECTURE METHOD	AMOUNT OF HOURS (ST/NST)
BASIC OF SOCIAL COMMUNICATION	3	L	30/16
STUDENT APPRENTICESHIPS	4	OW	100/100
TEAM COMMUNICATION IN IT	2	D	30/16
SOFTWARE DEVELOPMENT METHODOLOGIES	8	L, D	60/32
DIGITAL PRODUCT DESIGN MANAGEMENT	6	D	30/16
EMPATHIZATION AND IDEATION- THE SEARCH FOR PRODUCT SHAPE	6	L, D	45/24

SIXTH SEMESTER

Subjects in the field of Artificial intelligence and data science.

SUBJECT NAME	ECTS	LECTURE METHOD	AMOUNT OF HOURS (ST/NST)
FUNCTIONAL PROGRAMMING	6	L, D	60/32
ARTIFICIAL INTELLIGENCE	7	L, D	75/40
MACHINE LEARNING	7	L, D	60/32
STUDENT APPRENTICESHIPS	8	OW	200/200

Degree programme and study structure

ARTIFICIAL INTELLIGENCE
AND DATA SCIENCE

FOURTH YEAR OF STUDY

In the fourth year of study you will complete the study of specialty subjects. You will also complete an professional traineeship and work on your own IT project, which will help you to find your future job more easily.

SEVENTH SEMESTER

SUBJECT NAME	ECTS	LECTURE METHOD	AMOUNT OF HOURS (ST/NST)
BUSINESS INTELLIGENCE APPLICATION DEVELOPMENT	5	D	30/16
BIG DATA-ORIENTED SYSTEMS DEVELOPMENT	5	L, D	45/24
DEEP LEARNING	6	L, D	60/32
IT PROJECT	4	D	30/16
STUDENT APPRENTICESHIPS	7	OW	175/175
BASICS OF ECONOMICS	3	L	30/16

EIGHTH SEMESTER

SUBJECT NAME	ECTS	LECTURE METHOD	AMOUNT OF HOURS (ST/NST)
STUDENT APPRENTICESHIPS	6	OW	150/150
TEAM PROJECT	5	OW	45/24
DIPLOMA EXAM	5	OW	125/125
SEMINAR	2	SEM	30/16
PREPARING IT PROJECT	12	OW	300/300

The study programme also includes foreign language classes and (for full-time students) sports and recreational activities.

FIXED TUITION - FLEXIBLE PAYMENTS

By choosing to study at UEHS, you can be sure that the tuition fee will not change throughout the duration of your studies. You can pay the tuition fee once for the entire year of study or spread over a semester payment. This allows you to decide how you want to plan your expenses.

REDUCE THE COST OF YOUR STUDIES

As part of the UEHS discount programme, you can take advantage of various reductions and promotions. They are usually applied in the first year of study. It means that your tuition fees will be reduced by the amount of the discounts granted. Candidates who register and pay their tuition fees within one month of registration will receive an English language course for free. The course covers 80 hours of English classes and 20 hours of classes of Polish culture.

FEES

EU&OTHER COUNTRIES GROUP

YEAR OF STUDY	ANNUALLY	PER SEMESTER
1st year	2500 €	1400 €
2nd, 3rd and 4th	2500 €	1400 €

OTHER COUNTRIES

YEAR OF STUDY	ANNUALLY	PER SEMESTER
1st year	3600 €	1950 €
2nd, 3rd and 4th	3600 €	1950 €

Scholarships - easier than you think



While studying at UEHS, you can take advantage of a wide range of financial support from the state budget and European funds, as well as benefit from special discounts with UEHS discount program

You can submit most scholarship applications quickly and easily through your online account.

2020/2021 ACADEMIC YEAR

292

RECTOR'S
SCHOLARSHIPS

106

SOCIAL
SCHOLARSHIPS

79

SCHOLARSHIPS
FOR PEOPLE
WITH DISABILITIES

PLN 1,890,289.35 was spent in 2019 on scholarships
PLN 2,911,662.50 was spent in 2020 on scholarships

**SCHOLARSHIP • SPORTS SCHOLARSHIPS • SOCIAL SCHOLARSHIPS
• SPECIAL SCHOLARSHIPS FOR DISABLED PEOPLE • ALLOWANCES**

PROJECT MANAGEMENT AND USER EXPERIENCE

SUBJECT NAME	ECTS	LECTURE METHOD	AMOUNT OF HOURS (ST/NST)
EMBEDDED SYSTEMS	5	L, D	45/24
SOFTWARE ENGINEERING	6	L, D	45/24
FUNDAMENTALS OF DIGITAL PRODUCT DESIGN	4	D	30/16
USER INTERFACE DESIGN	4	D	30/16
RESEARCH AND ANALYSIS USER EXPERIENCE	5	L, D	45/24
STUDENT APPRENTICESHIPS	4	OW	100/100

THIRD YEAR OF STUDY

In the third year of study, during the 5th semester, you will complete the study of the subjects in the selected additional specialization, which in practice will already allow you to undertake work in this area. In your 6th semester, you will begin to study courses in the field of Artificial intelligence and data science

FIFTH SEMESTER

Continuation of the selected specialization path.

WEB APPLICATIONS

SUBJECT NAME	ECTS	LECTURE METHOD	AMOUNT OF HOURS (ST/NST)
CREATING MODERN WEB APPLICATIONS IN THE CLIENT LAYER	8	L, D	60/32
SECURITY OF WEB APPLICATIONS	5	L, D	30/16
CREATING APPLICATIONS FOR CLOUD ENVIRONMENTS	6	D	45/24
BASICS OF SOCIAL COMMUNICATION	3	L	30/16
STUDENT APPRENTICESHIPS	4	OW	100/100
TEAM COMMUNICATION IN IT	2	D	30/16