Bachelor Degree in Mathematical Modelling in Physics and Technology for Free

Czech Higher Education for International Students

<meta name="viewport" content="width=device-width"> <style> .container-s1 { display: flex; align-items: center; justify-content: center; background-image: linear-gradient(rgba(0, 0, 0, 0.0), rgba(0, 0, 0, 0.0)), url(https://ujop.cuni.cz/UJOPEN-126-version1-sekce_tech.png); background-position: center; background-size: cover; } .text-block { background-color: rgb(0,0,0); background-color: rgba(0,0,0, 0.7); color: white; font-size: 1.2em; padding: 10px; margin: 2% 40% 2% 2%; } .onlymobileshow { display: none !important; } .flex-container { display: flex; flex-direction: row; } .flex-item-40l { padding: 10px 0px 10px 10px; margin: 10px 10px 10px 0px; flex: 40%; } .flex-item-60r { padding: 10px 10px 10px 20px; margin: 10px 10px 10px 10px; border-left: 1px solid gray; flex: 60%; } .flex-item-60l { padding: 10px 0px 10px 10px; margin: 10px 10px 10px 0px; flex: 55%; } .flex-item-40r { padding: 10px 10px 10px 20px; margin: 10px 10px 10px 10px; border-left: 1px solid gray; flex: 45%; } .flex-item-30 { padding: 10px; margin: 10px 10px 10px 0px; flex: 30%; text-align: center; } .flex-item-70 { background-color: #f2f2f2; padding: 10px 10px 10px 10px; margin: 10px 0px 10px 10px; flex: 70%; } .container-s2 { display: flex; flex-direction: row; flex-wrap: wrap; padding: 2rem 0; align-items: center; justify-content: center; gap: 1em; } .card3 { display: flex; width: 40%; padding: 1rem; background-color: #f2f2f2; box-shadow: 0 10px 10px -15px rgb(0 0 0 / 10%); text-align: left; } .container-s3 { display: flex; align-items: left; justify-content: center; flex-direction: column; flex-wrap: wrap; background-image: linear-gradient(rgba(0, 0, 0, 0.0), rgba(0, 0, 0, 0.0)), url(https://ujop.cuni.cz/UJOPEN-126-version1-bg_09.jpg); background-position: center; background-size: cover; } .contact-box { font-size: 1.2em; padding: 50px 20px; width: 63%; } .container-s1 p { margin: 0px 0px 10px 0px; text-align: left; } .container-s3 p { margin: 0px 0px 10px 0px; text-align: left; } .flex-container p { margin: 0px 0px 10px 0px; text-align: left; } .flex-container li { margin: 0px 0px 0px 0px; text-align: left; } .text-block p { margin: 0px 0px 10px 0px; } .center { display: block; margin-left: auto; margin-right: auto; width: 50%; } .red { font-weight: bold; color: #cc2c32; } .icon-contact { width: 2.5em; margin: 10px; } @media only screen and (max-width: 768px) { /* For mobile phones: */ .container-s1 { padding-top: 20px; } .text-block { font-size: 1em; margin: 20px 20px 20px 20px; } .onlymobileshow { display: block !important; padding-bottom: 1em; } .pic { width: 100%; } .flex-container { flex-direction: column; text-align: left; } .flex-item-40l { padding: 20px 0px 0px 0px; margin: 0px 0px 0px 0px; } .flex-item-60r { border: none; padding: 10px 0px 0px 0px; margin: 0px 0px 0px 0px; } .flex-item-60l { padding: 20px 0px 0px 0px; margin: 0px 0px 0px 0px; } .flex-item-40r { border: none; padding: 10px 0px 0px 0px; margin: 0px 0px 0px 0px; } .flex-item-70 { padding: 10px; margin: 10px 0px 50px 0px; } .flex-item-30 { padding: 10px; } .flex-container p { margin: 0px 0px 20px 0px; } .center { display: block; margin-left: auto; margin-right: auto; width: 100%; } .logox { width: 60%; padding: 50px 20px; } .container-s2 { flex-direction: column; padding-top: 50px; padding-bottom: 1.5em; gap: 0.8em; } .card3 { width: 95%; } .contact-box { width: 100%; background-color: rgb(255,255,255); background-color: rgba(255,255,255, 0.7); font-size: 1em; } } </style>
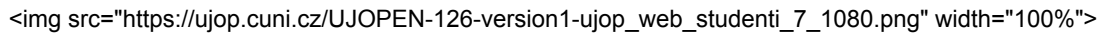
<p><img class="onlymobileshow" src="https://ujop.cuni.cz/UJOPEN-126-version1-sekce_tech_mobil.png" width="100%"></p>

<div class="container-s1"> <div class="text-block"> <p>Study at the best Czech universities for free.</p> <p>According to the law, higher education in the Czech Republic (bachelor's and master's degree studies) is free for everyone, including foreigners. The only condition is that you have to study in Czech. But don't be afraid! It is difficult, but possible.</p> <p>The chances of ÚJOP Charles University graduates to enter the best universities in popular specialties increase significantly. We have been successfully preparing foreign students for admission to Czech universities for over 60 years.</p> </div> </div>

Work in the Czech Republic after University Graduation

<div class="flex-container"> <div class="flex-item-40l"> <p style="font-size: 1.2em; text-align: left; font-weight: bold; color: #cc2c32;">What are the advantages of a diploma received in the Czech Republic?</p> <p>First, you get free access to the Czech labor market – you do not need to go through complicated procedures, which are mandatory for foreigners that do not have a Czech diploma.</p> <p>The second important argument in favor of a Czech diploma is that your education is easily recognized in any country of the European Union.</p> </div> <div class="flex-item-60r"> <p style="font-size: 1.2em; text-align: left; font-weight: bold; color: #cc2c32;">What can you do with a degree of Mathematical Modelling in Physics and Technology?</p> <p>To understand complex physical, chemical, or even social systems, it is necessary to describe the phenomena that is being studied or create its mathematical model. The evolution of systems like this should be predictable based on reliable models. Thus, the modeling process consists of the analysis of the relevant phenomena, their mathematical

description and the subsequent solution of the resulting mathematical equations. All these skills are acquired by a graduate majoring in Mathematical Modeling. The study of mathematical modeling features considerable freedom in the choice of specialization, such as modeling of complex physical experiments and engineering processes, chemical engineering modeling, statistical modeling or biological systems modeling. Particular attention is paid to understanding and mastering the mathematical tools necessary for model formulation and analysis, and also to subsequent numerical solution with the use of modern computer methods. Graduates can continue their studies in physics and mathematics or work in a commercial environment (for instance, in companies that rely on the use of mathematical models, technology firms, consulting companies, financial institutions, and in the information technology field).</p> </div> </div>

<img src="https://ujop.cuni.cz/UJOPEN-126-version1-ujop_web_studenti_7_1080.png" width="100%">

Mathematical Modelling in Physics and Technology at Czech Universities

Mathematical Modelling in Physics and Technology at Charles University

<div class="flex-container"> <div class="flex-item-30"> <img src="https://ujop.cuni.cz/UJOPEN-126-version1-logo_univerzita_karlova.png" width="70%" class="logox"> </div> <div class="flex-item-70"> <p>One of the features of the modern society is the interconnection of previously separate areas of human activity. The transfer of knowledge and skills between different fields often leads to tremendous progress (in medicine, physics, chemistry and biology). The goal of the Mathematical Modeling program is to produce graduates who are capable of critical thinking and connecting seemingly disparate disciplines. Graduates will understand physical principles of natural phenomena, their mathematical formulation and subsequent numerical solution of the resulting mathematical equations. This combination of mathematics, physics and computer science is a good tradition of the Faculty of Mathematics and Physics of Charles University and is exceptional in the world. Graduates will be able to continue their studies both in the Czech Republic and abroad or find good jobs, for example, in technology and computer companies. </p> <p>Information security is taught at the Faculty of Information Technology. At the bachelor's level, this is a specialization in general learning, and within the framework of the master's program, this is a separate area of education.</p> <p>The classes are held at the Faculty of Physics and Mathematics of the Charles University. Find the detailed admission requirements here. (updated 01.12.2022.).</p> <p>The entrance exam: 10 test tasks that determine the ability to study at the Faculty of Physics and Mathematics (logical thinking, precision of language, knowledge of high school mathematics). Each question has 5 possible answers. The time for solving tasks is 75 minutes. You can get 10 points for each task. The passing score is 40 points out of 100.</p> <p>Level of the Czech language proficiency: B2 or C1. Read more about language proficiency here.</p> </div> </div>

Preparatory course at UJOP Charles University for Mathematical Modelling in Physics and Technology

Description of the preparatory course

<div class="flex-container"> <div class="flex-item-60l"><p>The preparatory course at ÚJOP Charles University includes intensive Czech language learning and training in special subjects, the knowledge of which you will need at the entrance exams and during your further studies. The course is also suitable for those who are starting to learn Czech from scratch. Our language certificate is recognized by more than 80 faculties of state universities, which means that you won't need to take an exam in Czech when you apply to a university.</p></div> <div class="flex-item-40r"><p>During the course, you will study: <ul> Intensive Czech language course
(including professional terminology)   Specialised subjects: Mathematics   Physics   Informatics   English   </p>   </div> </div>

More about the course

The price of the UJOP Charles University course includes

<section class="container-s2"> <div class="card3"><div style="padding-right: 30px; float: left;"></div> <div>from 650 to 1200 hours of study per year</div></div> <div class="card3"><div style="padding-right: 30px; float: left;"></div> <div>a certificate exempting you from the Czech language exam in most faculties</div></div> <div class="card3"><div style="padding-right: 30px; float: left;"></div> <div>InfoPoint consultations (email / WhatsApp)</div></div> <div class="card3"><div style="padding-right: 30px; float: left;">

span></div> <div>assistance with student visa application</div></div> <div class="card3"><div style="padding-right: 30px; float: left;"></div> <div>tutoring support during your studies</div></div> <div class="card3"><div style="padding-right: 30px; float: left;"></div> <div>assistance with recognition of foreign education</div></div> <div class="card3"><div style="padding-right: 30px; float: left;"></div> <div>career guidance</div></div> <div class="card3"><div style="padding-right: 30px; float: left;"></div> <div>connection to the student Wi-Fi network</div></div> <div class="card3"><div style="padding-right: 30px; float: left;"></div> <div>Microsoft Teams license</div></div> <div class="card3"><div style="padding-right: 30px; float: left;"></div> <div>access to the libraries of Charles University</div></div> <div class="card3"><div style="padding-right: 30px; float: left;"></div> <div>textbooks for all subjects</div></div> <div class="card3"><div style="padding-right: 30px; float: left;"></div> <div>no hidden fees</div></div> </section>

Step-by-step instructions for admission to the preparatory course

Click the banner and find detailed instruction on how to apply for a preparatory course at ÚJOP Charles University.

<figure> </figure>

<img src="https://ujop.cuni.cz/UJOPEN-126-version1-timeline_en.png" width="100%">

Video instruction

Student visa to the Czech Republic – step-by-step instructions

<div class="flex-container"> <div class="flex-item-40l"><p>We provide consultation throughout the entire visa process and prepare all the necessary documents from our side. Detailed instructions for the visa process can be found here.</p></div> <div class="flex-item-60r"><p>For your convenience, we have prepared a step-by-step guide from which you will learn: <ol> how to schedule an appointment at the consulate; what documents you will need to collect; how to fill in the application form; what questions you may be asked at the interview for your visa; how long you should wait to get your visa, etc. </p> </div> </div>

Consultations on education in the Czech Republic

<section class="container-s3"> <div class="contact-box"><div style="width: 90%"><p style="font-size: 1.2em;">If you have any questions, our InfoPoint ÚJOP UK can assist you.

</p> <p style="font-size: 1.2em;"> studujop@ujop.cuni.cz</p> <p style="font-size: 1.2em;"> +420 778 754 481</p> </div></div> </section>

Accommodation for foreign students in the Czech Republic

<div class="flex-container"> <div class="flex-item-40l"><p>Students of our courses can live in dormitories of ÚJOP Charles University.</p> <p>Read more about dormitories of ÚJOP here.</p></div> <div class="flex-item-60r" style="border: none;"> <img src="https://ujop.cuni.cz/UJOP-241-version1-ujop_web_pdy_pokojk22_720.jpg" style="padding: 5px; width: 50%"><img src="https://ujop.cuni.cz/UJOP-241-version1-ujop_web_pdy_pokojk21_720.jpg" style="padding: 5px; width: 50%"></div> </div>