

## UNIC opened courses winter term 22/23

Title	Life at small scale
University	University of Oulu
Department	Biochemistry
Lecturer	Caglar Elbuen
<b>Level</b>	<b>BA/BSc</b>
Course Prerequisites	none
Programme	Biochemistry: Basic Studies
<b>ECTS</b>	<b>2</b>
Slots available for UNIC students	7
Class Times, Test Times	<a href="https://opas.peppi oulu.fi/en/course/AY740160P/15805">https://opas.peppi oulu.fi/en/course/AY740160P/15805</a>
Registration	<p>All registrations through Uni Oulu webpage only:  <a href="https://www oulu.fi/en/cooperation/cooperation-networks/unic-european-university/unic-oulu-course-registration">https://www oulu.fi/en/cooperation/cooperation-networks/unic-european-university/unic-oulu-course-registration</a></p> <p>Please note that the registrations will be processed as of August 2022.</p>
Course Description	<p>We will explore some fundamental laws of the universe with a nice blend of biology, chemistry and physics. Syllabus:</p> <p>1: A brief of history of science. Chemistry, biology, physics: are they really different disciplines? 2: Scale: from sub-microscopic organisms to galaxies. Any common rules that govern all of them? 3: Our understanding today at the microscale. The evolution of microsystem technologies from the first transistor to quantum computers 4: Motion at micro/nanoscale. Fluid flow behavior at micro scale. 5: The next revolution in biotechnology</p>
Course requirements	Online Exercises
Contact E-Mail for Questions	<a href="mailto:unic.info@oulu.fi">unic.info@oulu.fi</a>
Link to Course	<a href="https://opas.peppi oulu.fi/en/course/AY740160P/15805">https://opas.peppi oulu.fi/en/course/AY740160P/15805</a>
Registration deadline	25.08.2022

Title	Molecular, cell biological and genetic aspects of diseases
University	University of Oulu
Department	Biochemistry
Lecturer	Krista Juurikka
<b>Level</b>	<b>BA/BSc</b>
Course Prerequisites	Adequate knowledge on basic biochemistry and cellular and molecular biology
Programme	Biochemistry: <a href="https://opas.peppi oulu.fi/en/course/740396A/19728">https://opas.peppi oulu.fi/en/course/740396A/19728</a>
<b>ECTS</b>	<b>5</b>
Slots available for UNIC students	5
Class Times, Test Times	10.10.2022 - 30.10.2022
Registration	<p>Registrations only through UniOulu webpages:  <a href="https://www oulu.fi/en/cooperation/cooperation-networks/unic-european-university/unic-oulu-course-registration">https://www oulu.fi/en/cooperation/cooperation-networks/unic-european-university/unic-oulu-course-registration</a></p> <p>Please note that the registrations will only be processed as of August 2022.</p>
Course Description	<a href="https://opas.peppi oulu.fi/en/course/740396A/19728">https://opas.peppi oulu.fi/en/course/740396A/19728</a>
Course requirements	<p>Upon completion the student should be able to:</p> <p>based on biogenesis, structure and function of the key cell organelles discuss their role in pathology and describe organelle-specific disease mechanisms</p> <p>describe typical inherited diseases in terms of their occurrence, biochemistry behind their origin, and their analysis and treatment possibilities</p>
Contact E-Mail for Questions	<a href="mailto:unic.info@oulu.fi">unic.info@oulu.fi</a>
Link to Course	<a href="https://opas.peppi oulu.fi/en/course/740396A/19728">https://opas.peppi oulu.fi/en/course/740396A/19728</a>
Registration deadline	25.09.2022

Title	
Biomedical Engineering Research Methods and Seminar	
University	University of Oulu
Department	Faculty of Medicine: Biomedical Engineering
Lecturer	Victor Casula
Level	MA/MSc
Course Prerequisites	none
Programme	Biomedical Engineering
ECTS	5
Slots available for UNIC students	7
Class Times, Test Times	<p>NB. All times in Finnish timezone (EET)</p> <p>Teaching</p> <p>Thu 08.09.2022 14:15-16:00</p> <p>Mon 12.09.2022 14:15-16:00</p> <p>Thu 15.09.2022 14:15-16:00</p> <p>Wed 09.11.2022 08:15-10:15</p> <p>Additionally, group meetings</p>
Registration	<p>All registrations through UniOulu webpages only:</p> <p><a href="https://www.oulu.fi/en/cooperation/cooperation-networks/unic-european-university/unic-oulu-course-registration">https://www.oulu.fi/en/cooperation/cooperation-networks/unic-european-university/unic-oulu-course-registration</a></p> <p>Please note that the registrations will be processed only as of August 2022.</p>
Course Description	<p><a href="https://opas.peppi.oulu.fi/en/course/080928S/6961">https://opas.peppi.oulu.fi/en/course/080928S/6961</a></p> <p>Principles of scientific work. Ethical principles. Lectures, seminars, and scientific literature. Publication forums in the field and characteristics of scientific articles. Popularization of science.</p> <p>The student familiarizes with the principles of scientific work and research ethics. The student can identify the essential features of scientific publications. The student can present the central content of a scientific article to others. The student can present critical questions related to a scientific presentation, and give and receive feedback on the presentations.</p>
Course requirements	<p>Attending seminars, making presentations and acting as an opponent and peer. The assessment criteria are based on the learning outcomes of the course. More detailed assessment criteria can be found in e-learning platform. Read more about assessment criteria assessment criteria at the University of Oulu webpage;</p> <p><a href="https://www.oulu.fi/en/students/studying-university/assessment-criteria">https://www.oulu.fi/en/students/studying-university/assessment-criteria</a></p>
Contact E-Mail for Questions	<a href="mailto:unic.info@oulu.fi">unic.info@oulu.fi</a>
Link to Course	<a href="https://opas.peppi.oulu.fi/en/course/080928S/6961">https://opas.peppi.oulu.fi/en/course/080928S/6961</a>
Registration deadline	31.08.2022



Title	Microbes and their hosts
University	University of Łódź
Department	Faculty of Biology and Environmental Protection
Lecturer	Magdalena Mikołajczyk-Chmiela as a coordinator
Level	<b>BA/BSc + MA/MSc</b>
Course Prerequisites	none
Programme	none
ECTS	<b>3</b>
Slots available for UNIC students	10
Class Times, Test Times	In total 13 hours in the semester; overall 7 meetings 2 hours each; once a week; at first 5 lectures followed by the practical seminar meeting that will base on the group work of the students; times not defined yet
Registration	In order to register please send your request to <a href="mailto:unic@uni.lodz.pl">unic@uni.lodz.pl</a>
Course Description	<p>The aim of the lecture is to familiarize students with the topic of interaction of various infectious agents with the host and to consider the practical application of microorganisms by man, including use for medical purposes. The lecture covers issues in the field of microbiology, epidemiology, immunology, medical biology and other related disciplines. The lecture improves the understanding and use of English in speech and writing, also in the context of the use of the specialized scientific literature. Students have the opportunity to present their own arguments and update their knowledge in the above field as well as improve professional and social competence. Contents of teaching: Diversity of microorganisms. The host-parasite relationships. The evolution of parasitism. The natural microflora and its role in the host organism. Bacterial biofilms. Inflammation as a weapon in the fight against infectious agents. The microbial mechanisms of escaping the immune mechanisms of the hosts. Tuberculosis the old-new disease. Anaerobic bacteria. House dust as a cause of health problems. Toxoplasmosis – an example of zoonotic infection.</p>
Course requirements	Presentation of selected topic by student's according to their own concept, coordination of scientific discussion by the lecturers. Student are working in groups on the selected topic in English, participate in the discussion and present an oral presentation on the topic.
Contact E-Mail for Questions	<a href="mailto:magdalena.chmiela@biol.uni.lodz.pl">magdalena.chmiela@biol.uni.lodz.pl</a>
Link to Course	
Registration deadline	30.09.2022