Formularz opisu przedmiotu (formularz sylabusa) – dotyczy studiów I i II stopnia

A. Informacje ogólne

Nazwa pola		Treść
Name		**INTEGRATIVE EDUCATIONAL PROGRAM IN ONCOLOGY**
Who		Faculty of Biology, University of Warsaw
To whom		Faculty of Biology, University of Warsaw
Kod przedmiotu		
Kod ERASMUS		
Type of course		4EU+ summer school
When		03-09 July 2022
Short description		Providing a comprehensive and integrated educational program in molecular and clinical oncology to help students to identify their field of interest for a PhD program in oncology. Oncology becomes a more and more specialized domain requiring interdisciplinary knowledge and skills.
Mode		Lectures, seminars, discussion panels
Description		Day 1-Tumor Biology - Hallmarks of cancer - Tumor cells - Tumor microenvironment - Preclinical research and experimental tools Day 2-Tumor Heterogeneity, translational and clinical research - Intra and intertumor heterogeneity - Molecular biomarkers - Main principles of clinical research - Philosophy of clinical trials and pharmaceutical regulation Day 3-Microbiote, High throughput molecular data - Microbiote - OMICS and Data Science - Next Generation Sequencing - Machine learning and artificial intelligence Day 4-Drug development - Chemistry and drug development - Innovative treatments - Mathematic modelling of response to chemotherapy - Preclinical evaluation of new therapeutic strategies in oncology. Day 5-Supportive activities - Fund raising, patent, data protection - Industries, Business organization - Science communication - 4EU+ perspectives
Requirements	Wymagania formalne	Master I student

	Założenia wstępne	Basic knowledge related to molecular and clinical oncology
Learning outcomes		Knowledge: Student 1-Has a general understanding of the scope of biological research and the methodology used in it 2-The graduate knows molecular methods used in oncological studies 3-The graduate knows specialized bioinformatics tools used to analyse oncological phenomenon Skills: Student 1-Analyzes the flow of genetic information in the cells of living organisms 2-Correctly uses the basic concepts of genetics, especially the concepts of genetic information, genetic material, genetic code, genotype and phenotype 3-Based on the analytical data, the graduate predicts the direction of changes in the living organism under the influence of various factors Social competences: Student 1-is ready to critically assess received knowledge; 2-is ready to recognize the importance of knowledge in solving cognitive and practical problems and to search for information in the literature or to consult experts. -Feels the need to constantly learn and update knowledge, using scientific sources in the field of oncology.
ECTS		6 ECTS
Assessment criteria		The criteria for assessing the outcomes of the summer school are: (i) attendance (ii) paricipation in the discussions during the seminars and the discussion panels
Assessment methods		The lecturers will ask questions relate to their field during the discussion panels session
Mode		lectures, seminars, discussion panels
Course language		english
Bibliography		
Practical placement		no
Coordinator		dr Katarzyna Grabowski
Teachers		see the web site program on the 4EU+ webpage
Others		

B. Informacje szczegółowe

Nazwa pola	Treść
Coordinator	dr Katarzyna Grabowski
Stopień/tytuł naukowy	PhD
Mode	lectures, seminars, discussion panels
Learning outcomes	Knowledge: Student 1-Has a general understanding of the scope of biological research and the methodology used in it 2-The graduate knows molecular methods used in oncoligical studies 3-The graduate knows specialized bioinformatics tools used to analyse oncological phenomenon Skills: Student 1-Analyzes the flow of genetic information in the cells of living organisms 2-Correctly uses the basic concepts of genetics, especially the concepts of genetic information, genetic material, genetic code, genotype and phenotype 3-Based on the analytical data, the graduate predicts the direction of changes in the living organism under the influence of various factors Social competences: Student 1-is ready to critically assess received knowledge; 2-is ready to recognize the importance of knowledge in solving cognitive and practical problems and to search for information in the literature or to consult experts. -Feels the need to constantly learn and update knowledge, using scientific sources in the field of oncology.
Assessment criteria	The criteria for assessing the outcomes of the summer school are: (i) attendance (ii) paricipation in the discussions during the seminars and the discussion panels
Assessment methods	The lecturers will ask questions relate to their field during the discussion panels session
Description	Day 1-Tumor Biology - Hallmarks of cancer - Tumor cells - Tumor microenvironment - Preclinical research and experimental tools Day 2-Tumor Heterogeneity, translational and clinical research - Intra and intertumor heterogeneity - Molecular biomarkers - Main principles of clinical research - Philosophy of clinical trials and pharmaceutical regulation Day 3-Microbiote, High throughput molecular data

	- Microbiote - OMICS and Data Science - Next Generation Sequencing - Machine learning and artificial intelligence Day 4-Drug development - Chemistry and drug development - Innovative treatments - Mathematic modelling of response to chemotherapy - Preclinical evaluation of new therapeutic strategies in oncology. Day 5-Supportive activities - Fund raising, patent, data protection - Industries, Business organization - Science communication - 4EU+ perspectives
Mode	lectures, seminars, discussion panels
Bibliography	
Limit miejsc w grupie	30
Terminy odbywania zajęć	03-09 July 2022
Miejsce odbywania zajęć	Faculty of Biology, University of Warsaw