

COURSE OFFERED

Name of the course	Polish	Kierunki badań biologicznych
	English	Trends in biological science

1. LOCATION OF THE COURSE OF STUDY WITHIN THE EDUCATION SYSTEM

1.1. Section¹	Biology
1.2. Discipline²	Biological Sciences
1.3. Type of education	stationary
1.4. Level of education	PhD programme
1.5. Person preparing the course description	Prof. Dr hab. Andrzej Wójcik
1.6. Contact	andrzej.wojcik@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1. Type of course³	disciplinary subjects in the sections
2.2. Language of the course	English

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Type of classes⁴	Lecture
3.2. The number of hours⁵	15
3.3. Location of classes	Lecture room at UJK
3.4. Type of assessment	Approval with grade
3.5. Didactic methods	-lecture - presentations
3.6. Literature	basic Life: The Science of Biology by David Hillis, H Craig Heller, Sally D Hacker, Dave Hall, David Sadava, 12nd ed. 2020, W.H. Freeman & Co Ltd.
	supplementary D. Hanahan. Hallmarks of cancer: new dimensions. Cancer Discov 2022;12:31–46, doi: 10.1158/2159-8290.CD-21-1059. E.J. Hall and A.J. Giaccia. Radiobiology for the Radiologist, 2019, Wolters Kluwer https://unitedvrg.com/2019/06/29/radiobiology-for-the-radiologist-8th-edition-2019-2018-pdf/

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDEND LEARNING OUTCOMES

4.1. Course objectives (including the form of classes) C01. Acquiring advanced knowledge of the theoretical and methodological research assumptions in contemporary biology. C02. Acquiring the ability to apply conceptual categories from modern
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¹ Section of Humanities:, Social Sciences, Section of Exact and Natural Sciences, Section of Medical and Health Sciences, Section of Arts.

² History,Linguistics, Literary Studies, Medical Sciences, Health Sciences, Political and Administrative Sciences, Legal Sciences, Security Sciences, Pedagogy, Communication and Media Studies, Management and Quality Studies, Biological Sciences, Chemical Sciences, Physical Sciences, Earth and related Environmental Sciences, Visual Arts and Artwork Conservation, Musical Arts.

³ General courses, domain specific subjects in the section, disciplinary subjects in the sections, specialized subjects in the discipline.

⁴ Classes, lecture, seminar.

⁵ Consistent with the education program at the Doctoral School
Jan Kochanowski University in Kielce.

research methods and to formulate and justify judgments about the latest scientific achievements in this field. C03. Developing competencies related to independent research project implementation and fulfilling responsibilities related to scientific research activities.

4.2. Syllabus content

1. DNA damage repair mechanisms and analysis methodology
2. Mechanisms of radiation-induced carcinogenesis
3. Risk assessment of radiation-induced cancer
4. Statistical uncertainty in measuring the effects of low-dose radiation

5. SUBJECT LEARNING OUTCOMES

Learning outcomes	A doctoral student who has passed the subject:	Reference to the learning outcomes of Doctoral School (according to the training program at the Doctoral School)
in the area of KNOWLEDGE:		
W01	The doctoral student possesses in-depth knowledge of the latest scientific achievements, encompassing theoretical foundations, general issues, and selected specific topics relevant to the scientific discipline in which the doctoral dissertation is being prepared	SD_W01
W02	has advanced knowledge of development trends in disciplines related to the research topic.	SD_W02
W03	The doctoral student is able to formulate significant, current, and unresolved issues in the field of science in which they are studying, particularly in the discipline where the doctoral dissertation is being prepared, including in a foreign language.	SD_W07
in the area of SKILLS:		
U01	Can define the purpose and subject of research, formulate research hypotheses within the discipline in which the doctoral dissertation is being prepared.	SD_U01
U02	Can use knowledge from various disciplines to identify, formulate, and creatively solve complex problems or carry out research tasks.	SD_U03
U03	The doctoral student can effectively use a foreign language in research activities.	SD_U07
in the area of SOCIAL COMPETENCE:		
U01	The doctoral demonstrates entrepreneurial thinking and actively takes initiative.	SD_U04

6. METHODS OF ASSESSMENT OF THE INTENDED LEARNING OUTCOMES

SUBJECT LEARNING OUTCOMES	METHOD OF ASSESSMENT (+/-)						
	Oral/written exam	Kolokwium	Project	activity in class	Own work	Group work	Others

	<i>The type of classes</i>			<i>The type of classes</i>			<i>The type of classes</i>			<i>The type of classes</i>			<i>The type of classes</i>			<i>The type of classes</i>			<i>The type of classes</i>		
	<i>L</i>	<i>E</i>	<i>S</i>	<i>L</i>	<i>E</i>	<i>S</i>	<i>L</i>	<i>E</i>	<i>S</i>	<i>L</i>	<i>E</i>	<i>S</i>	<i>L</i>	<i>E</i>	<i>S</i>	<i>L</i>	<i>E</i>	<i>S</i>	<i>L</i>	<i>E</i>	<i>S</i>
SD_W02										X											
SD_W03										X											
SD_U01										X											
SD_U03										X											
SD_K01										X											
SD_K03										X											

7. CRITERIA OF ASSESSMENT OF THE INTENDED LEARNING OUTCOMES

Form of classes	Grade	Criterion of assessment
Lecture (L) ⁶	3,0	51-60% of the tasks assigned to the doctoral student were completed correctly
	3,5	61-70% of the tasks assigned to the doctoral student were completed correctly
	4,0	71-80% of the tasks assigned to the doctoral student were completed correctly
	4,5	81-90% of the tasks assigned to the doctoral student were completed correctly
	5,0	91-100% of the tasks assigned to the doctoral student were completed correctly

Accepted for execution

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⁶ Niepotrzebne usunąć.