

Karta opisu zajęć (syllabus)

Nazwa kierunku studiów	Biocosmetology
Nazwa modułu, także nazwa w języku angielskim	Skin aging process
Język wykładowy	English language
Rodzaj modułu	Optional
Poziom studiów	Bachelor's
Forma studiów	Extramural
Rok studiów dla kierunku	IV
Semestr dla kierunku	8
Liczba punktów ECTS z podziałem na kontaktowe/niekontaktowe	3 (1.32/1.68)
Tytuł naukowy/stopień naukowy, imię i nazwisko osoby odpowiedzialnej za moduł	Beata Horecka, PhD
Jednostka oferująca moduł	Institute of Biological Bases of Animal Production
Cel modułu	Acquainting with theories of aging and the cellular model of aging. Acquainting with the concept of oxidative stress and its influence on the aging process of the cell and organism.
Efekty uczenia się dla modułu to opis zasobu wiedzy, umiejętności i kompetencji społecznych, które student osiągnie po zrealizowaniu zajęć.	Knowledge:
	1. knows the basic theories of cell and organism aging
	2. knows the concept of oxidative stress and understands its role in the aging process
	Skills:
	1. can characterize the methods of testing the antioxidant potential of cells and the parameters of the antioxidant status of the organism
	2. is able to prepare and present a short statement on a given topic, using the available multimedia tools
	Social competences:
1. takes part in the discussion by presenting essential arguments	
Wymagania wstępne i dodatkowe	-
Treści programowe modułu	Basic concepts - definitions and features of aging. Evolutionary aging. Aging at the cellular level. Proliferation, aging and cell death. Theories of the aging process: protein glycation, mitochondrial and free radical theory of aging. Telomeric aging theory. Definition of oxidative stress and methods of testing

	the antioxidant potential of cells. Parameters of the antioxidant status of the organism. Cell aging and organism aging. Aging and the development of neoplasms.																																							
Wykaz literatury podstawowej i uzupełniającej	<p>Basic literature: 1. Paola S. Timiras: Physiological Basis of Aging and Geriatrics. CRC Press 2007.</p> <p>Supplementary literature: 1. McDonald R.B.: Biology of Aging. Garland Science 2013.</p>																																							
Planowane formy/działania/metody dydaktyczne	Lecture - multimedia presentation, laboratory practicals - group experiments, auditorium practicals - preparation and presentation of the project, discussion																																							
Sposoby weryfikacji oraz formy dokumentowania osiągniętych efektów uczenia się	<p><u>Ways of verifying the achieved learning outcomes:</u> W1, W2: Written exam. Obtaining the appropriate percentage of the sum of points assessing the level of required knowledge/skills: 2.0 <51% 3.0 - 51-60% 3.5 - 61-70% 4.0 - 71-80% 4.5 - 81-90% 5.0 > 91-100%</p> <p>U1, U2: Preparation and presentation of a multimedia presentation. K1: Group work, participation in the discussion. <u>Forms of documentation of the achieved learning outcomes:</u> archiving of final exams, reports from practicals, presentations, lecturer's notes.</p>																																							
Bilans punktów ECTS	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="text-align: center;">CONTACT</th> </tr> <tr> <th style="text-align: left;">Form of classes</th> <th style="text-align: left;">Number of hour</th> <th style="text-align: left;">ECTS credits</th> </tr> </thead> <tbody> <tr> <td>Lecture</td> <td>10 h</td> <td>0,40 ECTS</td> </tr> <tr> <td>Practicals</td> <td>15 h</td> <td>0,60 ECTS</td> </tr> <tr> <td>Consultations</td> <td>6 h</td> <td>0,24 ECTS</td> </tr> <tr> <td>Final exam</td> <td>2 h</td> <td>0,08 ECTS</td> </tr> <tr> <td>Total contact</td> <td>33 h</td> <td>1,32 ECTS</td> </tr> <tr> <th colspan="3" style="text-align: center;">NON-CONTACT</th> </tr> <tr> <td>Preparation of presentation</td> <td>6 h</td> <td>0,24 ECTS</td> </tr> <tr> <td>Literature studying</td> <td>10 h</td> <td>0,40 ECTS</td> </tr> <tr> <td>Preparation to final exam</td> <td>10 h</td> <td>0,40 ECTS</td> </tr> <tr> <td>Preparation of reports</td> <td>16 h</td> <td>0,64 ECTS</td> </tr> <tr> <td>Total non-contact</td> <td>42 h</td> <td>1,68 ECTS</td> </tr> </tbody> </table>	CONTACT			Form of classes	Number of hour	ECTS credits	Lecture	10 h	0,40 ECTS	Practicals	15 h	0,60 ECTS	Consultations	6 h	0,24 ECTS	Final exam	2 h	0,08 ECTS	Total contact	33 h	1,32 ECTS	NON-CONTACT			Preparation of presentation	6 h	0,24 ECTS	Literature studying	10 h	0,40 ECTS	Preparation to final exam	10 h	0,40 ECTS	Preparation of reports	16 h	0,64 ECTS	Total non-contact	42 h	1,68 ECTS
CONTACT																																								
Form of classes	Number of hour	ECTS credits																																						
Lecture	10 h	0,40 ECTS																																						
Practicals	15 h	0,60 ECTS																																						
Consultations	6 h	0,24 ECTS																																						
Final exam	2 h	0,08 ECTS																																						
Total contact	33 h	1,32 ECTS																																						
NON-CONTACT																																								
Preparation of presentation	6 h	0,24 ECTS																																						
Literature studying	10 h	0,40 ECTS																																						
Preparation to final exam	10 h	0,40 ECTS																																						
Preparation of reports	16 h	0,64 ECTS																																						
Total non-contact	42 h	1,68 ECTS																																						

	The total student's workload is 75 hours, which corresponds to 3 ECTS points
Nakład pracy związany z zajęciami wymagającymi bezpośredniego udziału nauczyciela akademickiego	Participation in lectures - 10 hours Participation in exercises - 15 hours Participation in consultations - 6 hours Participation in the final exam - 2 hours A total of 33 hours, which corresponds to 1.32 ECTS points
Odniesienie modułowych efektów uczenia się do kierunkowych efektów uczenia się	W1 – BK_W01 W2 – BK_W02 U1 – BK_U01 U2 – BK_U10 K1 – BK_K03