KARTA PRZEDMIOTU

I. Dane podstawowe

Nazwa przedmiotu	Podstawy taksonomii
Nazwa przedmiotu w języku angielskim	Basics of taxonomy
Kierunek studiów	Biotechnologia
Poziom studiów (I, II, jednolite magisterskie)	I
Forma studiów (stacjonarne, niestacjonarne)	stacjonarne
Dyscyplina	Nauki biologiczne
Język wykładowy	Grupy w języku polskim – język polski
	Grupy w języku angielskim – język angielski

Koordynator przedmiotu/osoba odpowiedzialna	dr Agnieszka Kuźniar

Forma zajęć *(katalog zamknięty ze słownika)*	Liczba godzin	semestr	Punkty ECTS
wykład	-	-	1
konwersatorium	15	I	
ćwiczenia	-	-	
laboratorium	-	-	
warsztaty	-	-	
seminarium	-	-	
proseminarium	-	-	
lektorat	-	-	
praktyki	-	-	
zajęcia terenowe	-	-	
pracownia dyplomowa	-	-	
translatorium	-	-	
wizyta studyjna	-	-	

Wymagania wstępne	knowledge of biology at the high school level

II. Cele kształcenia dla przedmiotu

Presentation of basic concepts and taxonomic methods used in microbiology, botany and zoology.
Identify research problems in modern microbiological testing, botanical and zoological
Introduction to the example applications taxonomic methods based on molecular data (identification of species phylogeny).

III. Efekty uczenia się dla przedmiotu wraz z odniesieniem do efektów kierunkowych

Symbol	Opis efektu przedmiotowego	Odniesienie do efektu kierunkowego
Knowledge: Graduate knows and understands		
W_01	presents knowledge about the development of taxonomy and its relation to other scientific disciplines	K_W04
W_02	presents knowledge in the field of laboratory techniques and research tools used in taxonomy	K_W05
W_03	presents knowledge in the field of genetics and molecular techniques and describes their practical use, in particular in taxonomy	K_W06
W_04	presents issues related taxonomy required for practical use in biotechnological processes which are applied in food and pharmaceutical industry as well as in agriculture	K_W08
Skills: a graduate can		
U_01	applies techniques and research tools in the field of biotechnology	K_U01
U_02	participates in the debate on taxonomy of live organisms issues using scientific language	K_U11
U_03	learns independently in a targeted manner in the field of taxonomy, updates his knowledge and skills, applies new research techniques and plans his professional development	K_U17
Social competence: a graduate is ready to		

IV. Opis przedmiotu/ treści programowe

Taxa and rank taxonomic and biological nomenclature. Species in taxonomy of miroorganisms, animals and plant (morphological, biological, historical). The methods used to identify the species of organisms. Microbial systematics, and botanical and biological evolution (phenograms, parsimonious trees). Taxonomy and phylogenetic fenetyczna - basic terms and assumptions. Genetic markers and their application in the system of microorganisms, plants and animals. Estimating biodiversity of organisms. An overview of taxonomic groups of microorganisms, plants and animals including species used in industry and agriculture Visualization of data obtained in the next generation sequencing in taxonomy (Past program).

V. Metody realizacji i weryfikacji efektów uczenia się

Symbol efektu	Metody dydaktyczne *(lista wyboru)*	Metody weryfikacji *(lista wyboru)*	Sposoby dokumentacji *(lista wyboru)*
WIEDZA			
W_01	discussion	test	Completed and evaluated test
W_02	discussion	test	Completed and evaluated test
W_03	discussion	test	Completed and evaluated test

W_04	discussion	test	Completed and evaluated test
UMIEJĘTNOŚCI			
U_01	Case study	test	Completed and evaluated test
U_02	discussion	observation	multimedia presentation evaluation card
U_03	discussion	test	Completed and evaluated test
KOMPETENCJE SPOŁECZNE			

VI. Kryteria oceny, wagi…

Ustalanie oceny zaliczeniowej na podstawie ocen cząstkowych otrzymywanych przez studenta w czasie trwania zajęć:

3 tests – 80%, preparation and evaluation multimedia presentation – 15%; active participation in the classes - 5%,

Mark	Evaluation criteria	
very good (5)	the student realizes the assumed learning outcomes at a very good level	the student demonstrates knowledge of the education content at the level of 91-100%
overgood (4.5)	the student accomplishes the assumed learning outcomes an over good level	the student demonstrates knowledge of the education content at the level of 86-90 %
good (4)	the student accomplishes the assumed learning outcomes at a good level	the student demonstrates knowledge of the education content at the level of 76-85%
quite good (3.5)	the student accomplishes the assumed learning outcomes at a quite good level	the student demonstrates knowledge of the education content at the level of 66-75%
sufficient (3)	the student accomplishes the assumed learning outcomes at a sufficient level	the student demonstrates knowledge of the education content at the level of 51-65%
insufficient (2)	the student accomplishes the assumed learning outcomes at an insufficient level	the student demonstrates knowledge of the education content below the level of 51%

VII. Obciążenie pracą studenta

Forma aktywności studenta	Liczba godzin
Liczba godzin kontaktowych z nauczycielem	**15**
Liczba godzin indywidualnej pracy studenta	**15**

VIII. **Literatura**

Literatura podstawowa
Baltz R.H., Demain A.L., Davies J.E. 2010 Industrial Microbiology and Biotechnology. ASM Press Washington. Section 3.
Literatura uzupełniająca
Specialist literature (source materials).