Knowledge UNIVERSITY	Kurdistan Region – Iraq Ministry of Higher Education and Scientific Research Knowledge University	

MODULE DESCRIPTOR FORM

Module Information			
Course Module Title	**Human Biology**		
ناونیشانی مۆدیول	**زینده زانی مرۆڤ**		
عنوان الوحدة	**بايولوجى الانسانيه**		
Course Module Type	**Core**	**Module Code**	**ML 102**
ECTS Credits	**7**	**Module Level**	**First**
Semester of Delivery	**1**	**Dept. Code**	**DMLS32000+**
College (Code)	**CSCN30000+**		
Module Website (CMW)	https://www.knu.edu.iq/sms		
Module Leader (ML)	**Sahar Hassannejad**	**e-mail**	**Sahar.hassannajad@knu.edu.iq**
ML Acad. Title	**Assistant lecturer**	**Qualification**	**MSc.**
ML ORCID	https://orcid.org/0000-0002-7222-9379		
ML Google Scholar Acc.	https://scholar.google.com/citations?user=_9EzaE4AAAAJ&hl=en		
Peer Review Name	**Hoshyar Saadi Ali**	**e-mail**	**Hoshyar.saadi@knu.edu.iq**
Reviewer Committee Approval	**15/02/2022**	**Version Number**	**1.0**

Relation With Other Modules	
Pre-requisites	N/A
Co-requisites	N/A
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	The aim of this module is to: 1- Describe the basic layout of the human body; identify the location of major organs and list their primary functions. 2- Describe the major organ systems of the human body and how each contributes to the maintenance of homeostasis within the body. 3- Explain the ways in which common diseases and disorders result from the interruption of normal organ system functioning. 4- Explain how humans integrate and coordinate the many functions of the body. 5- Understand how modern life/technology affects humans – in both positive and negative ways. 6- observation, identification, recording and interpretation – identification of biological material at both the 7- macroscopic and the microscopic levels. Candidates should record their findings clearly and accurately; 8- presentation of experimental results with calculations – select and implement the most appropriate. 9- method of recording the data collected; 10- interpretation of data – analyses results of both a qualitative and a quantitative nature to draw significant 11- conclusions; and experimental design – recognize a problem, formulate a hypothesis, devise a logical work plan and choose appropriate equipment.
Module Learning Outcomes	At the end of this module students will be able to: 1. Apply scientific methodology to the study of biology, (cell biology, histology, anatomy, and physiology…). 2. Describe the structure and function of cells and the processes of cell division (mitosis and meiosis). 3. Identify the major microscopic and macroscopic structural features of the human body. 4. Provide examples of the relationship between anatomical structures and body functions including identification of the eleven major organ systems and their respective major components and functions. 5. Describe some commonly encountered pathological and genetic conditions. 6. Discuss the function of the immune system in health and disease.

	7. Describe how factors such as age, nutrition, drugs, pollutants, injury, disease and stress can affect human health. 8. Utilize the basic vocabulary common to life science and medical professionals 9. Gain a personal inspiration and basis for career selection to generalize or specialize in some area of life science, health care and/or medical practice. 10. Practice cooperative and professional interaction with colleagues in developing a career subject expertise. 11. Practice the analytical skills of professional life scientists.
Indicative Contents	This course will include selected biological concepts, including the chemical basis of life, cell structure and division, a broad survey of the major systems of the human body with a special emphasis on human health disease, human evolution and ecology.
Learning and Teaching Strategies	
Strategies	The main strategy will be adopted in delivering this module is to encourage students' participation in the exercises like participation in the practical experiments, doing seminars preparing scientific report and data analysis. while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.

Module Delivery	
Structured workload (h/w)	2h/w
Unstructured workload (h/w)	8.8h/w
Total workload (h/w)	10.8h/w

Module Evaluation				
	Number/Time	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Report and poster	1	10%(10)	5	Improve interpretation and writing skills
Quizzes	2	5%(5)	2,4	Constant memorization of topics
Assignments	2	5%(5)	5	Continuous learning
Seminar	1	5%(5)	At the beginning of semester	Improve power of expression and increase the sense of confidence

Project/Lab.	5	15%(15)	Continuously	Practice their theory learnings
Midterm Exam	2hrs	10%	7	Demonstrating student learning , memorization of knowledge and critical thinking.
Final Exam	3 hr	50%	15	All
Total	100% (100 Marks)			

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	Biology, 10th Edition by Sylvia S. Mader (2010),ISBN 0-697-21828-7 P:511. Modern Biology, by John H. Postlethwait and Janet L.H (2006). Holt, Rinehard Winston .USA P:1129. Cell Biology Genetics Molecular, 1th Edition by Dipak Kumar Kar, Soma Halder (2009). Biology of Humans (4E) by J. Goodenough and B. McGuire, Pearson, 2012. Required Text: Human Biology, 12th edition by Sylvia Mader. McGraw Hill Publishing Co., 2008.	Yes
Recommended Texts	Human Biology, Laboratory Manual by Sylvia Mader, 12th edition, McGraw Hill, 2008. Optional Texts: Anatomy & Physiology Coloring Workbook & Study Guide, 9th edition by Elaine Marieb, Pearson, Benjaming Cummings Publishers, 2009. Student Study Guide for Human Biology, by Sylvia Mader, McGraw Hill Co. 2008.	Yes
Websites	http://www.sshb.org/ http://www.sebiology.org/ http://www.cellimagelibrary.org/	

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Digestive system A. structure and functions B. Nutrition C. Health and diet
Week 2	Respiratory system A. structure and parts B. smoking and lung diseases
Week 3	Skeletal system A. Bone and cartilage structure and function B. Osteopenia and Osteoporosis
Week 4	Muscular system A. Skeletal, smooth and cardiac muscles B. Voluntary versus involuntary control
Week 5	Endocrine system A. Hormonal regulation B. blood glucose levels in health and diabetes
Week 6	Urinary system A. Kidney anatomy B. urine formation
Week 7	**Mid-Term Exam**
Week 8	Reproductive system A. Contraception B. Sexually transmitted diseases
Week 9	Origin of life and evolution A. Formation of earth B. Origin of heterotrophs and autotrophs
Week 10	Rise of eukaryotes A. Natural selection

	B. Variation and speciation
Week 11	managements of resource A. Carbon, Nitrogen, Water cycle B. Use and misuse of living resource
Week 12	Human and environment
Week 13	Biological resource of energy and phytoremediation
Week 14	Biotechnology A. Basic techniques in biotechnology B. Formation of Genetically Modified Organisms (GMOs)
Week 15	**Final Exam**

APPENDIX:

KNOWLEDGE UNIVERSITY					
GRADING SCHEME					
Group	**ECTS Grade**	**% of Marks**	**Definition**	**IRQ System**	**GPA**
Success Group (50-100)	**A -** Excellent	Best 10%	Outstanding Performance	90-100	**5**
	B - Very Good	Next 25%	Above average with some errors	80-89	**4**
	C - Good	Next 30%	Sound work with notable errors	70- 79	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	60-69	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	50-59	**1**
Fail Group (0–49)	**FX –** Fail	(45-49)	More work required but credit awarded	40-49	
	F – Fail	(0-44)	Considerable amount of work required	0-44	

NB Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. KNU has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.