

<b>BACHELOR OF SCIENCE IN ENVIRONMENTAL MANAGEMENT ACADEMIC SESSION 2023/2024 (132 CREDITS)</b>			
<b>1. UNIVERSITY COURSES (14 CREDITS)</b>			
COURSE CODE	COURSE NAME		CREDITS
GIG1012 / GLT1017*	Philosophy and Current Issues (local students) / Basic Malay Language (*only for international students)		2
GIG1013	Appreciation of Ethics and Civilisations		2
GIG1003	Basic Entrepreneurship Enculturation		2
GKA/ GKI/ GKK/ GKP/ GKS/ GKU 1001	Co-Curriculum		4
GLTxxxx	English Language / Foreign Language (**student whose native language is English)		4
<b>2. CORE COURSES (80 CREDITS)</b>			
COURSE CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>LEVEL 1 (15 Credits)</b>			
SIX1015	Science, Technology and Society		2
SIX1016	Statistics		3
SIE1002	Bioethics and Safety		2
SIH1004	Environmental Sustainability		2
SIH1005	Analytical Environmental Chemistry		2
SIO1003	Bioinformatics Concepts		2
SIO1004	Introduction to Computer Programming in Bioinformatics		2
<b>LEVEL 2 (16 Credits)</b>			
SIH2007	Principles of Waste Management		3
SIH2015	Soil Science and Community	SIH1005	5
SIH2016	Environmental Monitoring	SIH1004	3
SIH2017	Applied Ecology		3
SIH2018	Research Methods and Scientific Writing		2
<b>LEVEL 3 (19 Credits)</b>			
SIH3005	Environmental Impact Assessment	SIH2016	3
SIH3006	Environmental Management System	SIH1004	3
SIH3007	Integrated Waste Management	SIH2007	3
SIH3022	Environmental Management Research Project	SIH2018	8
SIH3023	Introduction to Administrative Management		2
<b>LEVEL 4 (30 Credits)</b>			
SIH4001	Industrial Training	SIH3022 & SIH3023	30
<b>3. ELECTIVE COURSES (38 CREDITS)</b>			
<b>(I) PROGRAMME ELECTIVE COURSES or/and MINOR PACKAGE ** (30 CREDITS)</b>			
Choose from all elective courses or/and Minor Packages that are offered			
COURSE CODE	COURSE NAME	PRE-REQUISITES	CREDITS
SIH2008	Environmental Health and Safety		2
SIH2014	Environmental Forensics		2
SIH2019	Environmental Risk Assessment and Management		2
SIH2020	Environmental Governance	SIH1004	3
SIH2021	Key Issues in Climate Change		2
SIH2022	Ecosystem-Based Management		2
SIH2023	Energy Saving Culture		2
SIH2024	Environmental Informatics	SIO1004	2
SIH2025	Renewable Energy Transition and Society		2
SIH2026	Water Management		2
SIH2028	Air Pollution Control		2
SIH2029	Disaster Management		2
SIH2030	Organisms and Environment		2
SIH3009	Slope Eco-engineering Techniques		3
SIH3017	Technology and Management of Hazardous Waste	SIH3007	3
SIH3018	Environmental Microbiology	SIH1004	3
SIH3019	Tourism and Environment		3
SIH3025	Introduction to Bioremediation	SIH3018	3
SIH3026	Environmental Well-Being		2
SIH3027	Green Agriculture		3

SIE2012	Aquatic Ecology		3
SIE3025	Biodiversity Governance and Conservation		3
SIO2012	Bioinformatics Data Management	SIO1003	2
SIO3016	Biological Data Analytics	SIO1004	2
SIO3026	Sustainable Food Systems		2
<b>(II) STUDENT HOLISTIC EMPOWERMENT (8 CREDITS) [SHE]</b>			
Choose one course from each cluster			
CLUSTER	CLUSTER TITLE		CREDITS
Cluster 1	Thinking Matters: Mind & Intellect		2
Cluster 2	Emotional & Spiritual Intelligence: Heart & Soul GQX0056 Integrity and Anti-Corruption Course		2
Cluster 3	Technology/Artificial Intelligence and Data Analytics: i-Technie		2
Cluster 4	Global Issue and Community Sustainability: Making the World a Better Place		2

\*\* Minor package

(1) Students are required to complete a minimum of 18 credits under the same minor package in order to be displayed on the transcript.

(2) For further information, student can refer to UMSiTS Guide via this link : <https://umsitsguide.um.edu.my/>

### PROGRAMME GOAL

To produce knowledgeable and competent graduates in Environmental Management.

### PROGRAMME LEARNING OUTCOMES

At the end of the B.Sc in Environmental Management Programme, graduates are able to:-

1. Acquire and comprehend basic biological principles that contribute to expertise in environmental management.
2. Use intellectual skills to find and understand new scientific information that are useful in environmental management for industries.
3. Apply technical and design skills to solve environmental problems related to environmental management research and industry.
4. Communicate information and ideas clearly and effectively regardless of oral or written, presenting them in the manner that are confident, accurate, coherent and in context.
5. Use various forms of information, media and application technology that combine numerical and visual data to support learning.
6. Be independent, responsible and show leadership in making decisions to achieve organizational goals.
7. Actively engage in lifelong learning in addition to strengthening management and entrepreneurial abilities by emphasizing environmental, social, political, economic and cultural interests.
8. Inculcate values, ethics, codes of good practice, regulations and legislation learnt during the study of environmental science and management in the work-place and local community.

**SUGGESTED LIST OF COURSES ACCORDING TO SEMESTER, 2023/2024 SESSION  
(PLANNING OF COURSES)**

**BACHELOR OF SCIENCE IN ENVIRONMENTAL MANAGEMENT**

COMPONENT		YEAR 1				TOTAL CREDIT
		SEMESTER 1		SEMESTER 2		
		COURSE	CREDIT	COURSE	CREDIT	
University Courses		<b>GLTxxxx</b> English Language / Foreign Language**	2	<b>GLTxxxx</b> English Language / Foreign Language**	2	14
		<b>GIG1012 / GLT1017*</b> Philosophy and Current Issues / Basic Malay Language*	2	<b>GIG1013</b> Appreciation of Ethics and Civilisations	2	
		<b>GKA/GKI/GKK/GKP/GKS/GKU1001</b> Co-Curriculum	2	<b>GKA/GKI/GKK/GKP/GKS/GKU1001</b> Co-Curriculum	2	
		<b>GIG1003</b> Basic Entrepreneurship Enculturation	2			
Core Courses		<b>SIX1015</b> Science, Technology and Society	2	<b>SIX1016</b> Statistics	3	15
		<b>SIH1005</b> Analytical Environmental Chemistry	2	<b>SIE1002</b> Bioethics and Safety	2	
		<b>SIO1003</b> Bioinformatics Concepts	2	<b>SIH1004</b> Environmental Sustainability	2	
				<b>SIO1004</b> Introduction to Computer Programming in Bioinformatics	2	
Elective Courses	Student Holistic Empowerment (SHE)	<b>SHE Cluster 1</b> Thinking Matters: Mind & Intellect	2	<b>SHE Cluster 3</b> Technology/Artificial Intelligence and Data Analytics: i-Technie	2	
		<b>SHE Cluster 2</b> Emotional & Spiritual Intelligence: Heart & Soul <b>GQX0056</b> Integrity and Anti-Corruption	2	<b>SHE Cluster 4</b> Global Issue and Community Sustainability: Making the World a Better Place	2	
<b>TOTAL CREDITS</b>			<b>18</b>		<b>19</b>	<b>37</b>

\*only for international students; \*\*student whose native language is English

COMPONENT		YEAR 2				TOTAL CREDIT
		SEMESTER 1		SEMESTER 2		
		COURSE	CREDIT	COURSE	CREDIT	
Core Courses		<b>SIH2007</b> Principles of Waste Management	3	<b>SIH2016</b> Environmental Monitoring	3	16
		<b>SIH2015</b> Soil Science and Community	5	<b>SIH2017</b> Applied Ecology	3	
				<b>SIH2018</b> Research Methods and Scientific Writing	2	
Elective Courses	Program (EP)	<b>SIH2008</b> Environmental Health and Safety/ <b>SIH2014</b> Environmental Forensics/ <b>SIH2019</b> Environmental Risk Assessment and Management/ <b>SIH2021</b>	9	<b>SIH2020</b> Environmental Governance/ <b>SIH2024</b> Environmental Informatics/ <b>SIH2025</b> Renewable Energy Transition and Society/ <b>SIH2028</b> Air Pollution Control/	9	18

		Key Issues in Climate Change/ <b>SIH2022</b> Ecosystem-Based Management/ <b>SIH2023</b> Energy Saving Culture/ <b>SIH2026</b> Water Management/ <b>SIO2012</b> Bioinformatics Data Management		<b>SIH2029</b> Disaster Management/ <b>SIH2030</b> Organisms and Environment/ <b>SIE2012</b> Aquatic Ecology		
<b>TOTAL CREDITS</b>			<b>17</b>		<b>17</b>	<b>34</b>

COMPONENT	YEAR 3				TOTAL CREDIT	
	SEMESTER 1		SEMESTER 2			
	COURSE	CREDIT	COURSE	CREDIT		
Core Courses	<b>SIH3006</b> Environmental Management System	3	<b>SIH3005</b> Environmental Impact Assessment	3	19	
	<b>SIH3007</b> Integrated Waste Management	3	<b>SIH3022</b> Environmental Management Research Project (P)	4		
	<b>SIH3022</b> Environmental Management Research Project (P)	4	<b>SIH3023</b> Introduction to Administrative Management	2		
Elective Courses	Program (EP)	<b>SIH3009</b> Slope Eco-engineering Techniques/ <b>SIH3018</b> Environmental Microbiology/ <b>SIH3027</b> Green Agriculture/ <b>SIE3025</b> Biodiversity Governance and Conservation/ <b>SIO3016</b> Biological Data Analytics	6	<b>SIH3017</b> Technology and Management of Hazardous Waste/ <b>SIH3019</b> Tourism and Environment/ <b>SIH3025</b> Introduction to Bioremediation/ <b>SIH3026</b> Environmental Well-Being/ <b>SIO3026</b> Sustainable Food Systems	6	12
<b>TOTAL CREDITS</b>			<b>16</b>		<b>15</b>	<b>31</b>

(P) Progressive

COMPONENT	YEAR 4				TOTAL CREDIT	
	SEMESTER 1		SEMESTER 2			
	COURSE	CREDIT	COURSE	CREDIT		
Core Courses	<b>SIH4001</b> Industrial Training (P)	15	<b>SIH4001</b> Industrial Training (P)	15	30	
<b>TOTAL CREDITS</b>			<b>15</b>		<b>15</b>	<b>30</b>

(P) Progressive

**MINIMUM CREDITS FOR GRADUATION: 132**