

The University of Malakand has designed various courses approved by Higher Education Commission which aims to embed sustainability into all course and module content offered by the University.

The following departments offering various subject which address the sustainability.

1. Department of Botany
2. Department of Chemistry
3. Department of Biochemistry
4. Department of Zoology
5. Department of Tourism and Hotel Management

BS 4-Year Program

Semester I			Semester II		
C. Code	Title	CH	C. Code	Title	CH
Biotech-111	English-I	3-0	Biotech-121	English-II	3-0
Biotech-112	Pakistan Studies	2-0	Biotech-122	Islamic Studies/Ethics	2-0
Biotech-113	Mathematics-I	3-0	Biotech-123	Mathematics-II	3-0
Biotech-114	Physical Chemistry (G)	2-1	Biotech-124	Inorganic Chemistry (G)	2-1
Biotech-115	Plant Diversity. (G)	2-1	Biotech-125	Animal Diversity (G)	2-1
Biotech-116	Cell Biology (F)	2-1	Biotech-126	Genetics. (F)	2-1
Total Credit Hours		17	Total Credit Hours		17

Semester III			Semester IV		
C. Code	Title	CH	C. Code	Title	CH
Biotech-231	English-III	3-0	Biotech-241	English-IV/International Language*	3-0
Biotech-232	Introduction to Computer	3-0	Biotech-232	Ecosystem & Environment (G)	2-1
Biotech-233	Organic Chemistry (G)	2-1	Biotech-233	Any subject from social sciences (G)	3-0
Biotech-234	Any subject from social sciences (G)	3-0	Biotech-234	Analytical Chemistry & Instrumentation (F)	2-1
Biotech-235	Biochemistry I (F)	2-1	Biotech-235	Biochemistry II (F)	2-1
Biotech-236	Microbiology (F)	2-1	Biotech-236	Mol. Biology I (F)	2-1
Total Credit Hours		18	Total Credit Hours		18

Semester V

C. Code	Title	CH
Bot-351	Bacteriology and Virology	3-0
Bot-352	Diversity of Vascular Plants	3-0
Bot-353	Phycology & Bryology	3-0
Bot-354	Mycology and Plant Pathology	3-0
Bot-355	Plant Systematics	3-0
Bot-356	Plant Anatomy	3-0
Total Credit Hours		18

Semester VI

C. Code	Title	CH
Bot-361	Plant Ecology-I	3-0
Bot-362	Genetics-I	3-0
Bot-363	Plant Biochemistry-I	3-0
Bot-364	Plant Physiology-I	3-0
Bot-365	Molecular Biology	3-0
Total Credit Hours		15

Semester VII

C. Code	Title	CH
Bot-471	Plant Biochemistry-II	3-0
Bot-472	Plant Ecology-II	3-0
Bot-473	Elective-I, Research project / Internship/Optional Paper	0-0
Bot-474	Elective-II	3-0
Bot-475	Plant Physiology-II	3-0
Total Credit Hours		15

Semester VIII

C. Code	Title	CH
Bot-481	Genetics-II	3-0
Bot-482	Environmental Biology	3-0
Bot-483	Research Project / Internship / Optional Paper	0-3
Bot-484	Elective-IV	3-0
Total Credit Hours		15

*Special or optional papers/project will be according to the expertise available in the university.

M.Sc 2-Year Program

Previous

Paper	Title
Paper I	Virology, Bacteriology & Phycology
Paper II	Mycology and Plant Pathology
Paper III	Comparative Morphology of Archegoniate, and Palynology
Paper IV	Anatomy, Embryology & Taxonomy of Angiosperms
Paper V	Plant Biochemistry
Paper VI	Plant Ecology

Final

Paper	Title
Paper VII	Cell Biology and Biometry
Paper VIII	Plant Physiology
Paper IX	Genetics
Paper X	Environmental Biology
Paper XI	Medicinal Plants & Economic Botany
Paper XII	Research Project OR Special Paper

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Semester V

C. Code	Title	CH
Biotech-351	Statistics. (F)	3-0
Biotech-352	Immunology. (F)	2-1
Biotech-353	Mol. Biology II (F)	2-1
Biotech-354	Principles of Biochemical Engineering. (M)	2-1
Biotech-355	Cell and Tissue Culture. (M)	2-1
Biotech-356	Elements of Biotechnology (M)	2-0
Total Credit Hours		17

Semester VI

C. Code	Title	CH
Biotech-351	Genetic resources & Conservation (F)	2-1
Biotech-362	Microbial Biotechnology	2-1
Biotech-353	Agriculture Biotechnology. (M)	2-1
Biotech-354	Food Biotechnology. (M)	2-1
Biotech-355	Bioinformatics. (M)	0-2
Total Credit Hours		14

Semester VII

C. Code	Title	CH
Biotech-471	Health Biotechnology. (M)	3-0
Biotech-472	Recombinant DNA Technology (M)	2-1
Biotech-473	Skill Enhancement. (M)	0-1
Biotech-474	Metabolomics, Proteomics and Genomics (M)	2-1
Biotech-475	Elective-I	2-1
Biotech-476	Elective-II	2-1
Biotech-477	Research Dissertation, Research Project, Internship, Special Paper	3-0
Total Credit Hours		18

Semester VIII

C. Code	Title	CH
Biotech-481	Elective-III	2-1
Biotech-482	Environment Biotechnology. (M)	2-1
Biotech-483	Down Stream Technology (M)	1-0
Biotech-484	Bio-safety & Bioethics (M)	1-0
Biotech-485	Elective-IV	2-1
Biotech-486	Research Dissertation, Research Project, Internship, Special Paper*	3-0
Total Credit Hours		14

*Special papers/project will be according to the expertise available in the university.

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Semester I

C. Code	Title	CH
Bot-111	English-I	3-0
Bot -112	Pakistan Studies	0-2
Bot-113	Mathematics-I	3-0
Bot-114	Principles in Animal Life-I	3-0
Bot-115	Physical Chemistry	3-0
Bot-116	Diversity of Plants	3-1

Total Credit Hours**18**

Semester II

C. Code	Title	CH
Bot-121	English-II	3-0
Bot-122	Islamic Studies /Ethics	0-2
Bot-123	Environmental Science	3-0
Bot-124	Inorganic Chemistry	2-1
Bot-125	Principles in Animal Life-II	2-1
Bot-126	Plant Systematics, Anatomy and Development	2-1

Total Credit Hours**17**

Semester III

C. Code	Title	CH
Bot-231	English-III	3-0
Bot-232	Introduction to Computer	3-0
Bot-233	General-V	3-1
Bot-234	General-VI	3-0
Bot-235	Cell Biology, Genetics and Evolution	3-1

Total Credit Hours**17**

Semester IV

C. Code	Title	CH
Bot-241	Biostatistics	3-0
Bot-242	General-VI	3-0
Bot-243	General-VII	3-0
Bot-244	Plant Physiology and Ecology	3-1
Bot-245	Biodiversity and Conservation	3-1

Total Credit Hours**17**

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University of Malakand

Faculty – Department – Program – Semester - Course Wise enrollment

Faculty	Department	Program	Semester	Course	Enrollment													
					0	0	89	0	0	0	0	0	0	89				
BS Chemistry				ENVIRONMENTAL CHEMISTRY	0	0	89	0	0	0	0	0	0	0	89			
					PHYSICAL CHEMISTRY	0	0	89	0	0	0	0	0	0	0	89		
					Semester Total				89									
					semester 4	ENGLISH-IV/UNIVERSITY OPTIONAL	0	0	0	89	0	0	0	0	0	0	89	
						GENERAL-VI (TEACHING AND LEARNING)	0	0	0	89	0	0	0	0	0	0	89	
						GENERAL-VII (ENVIRONMENTAL SCIENCE)	0	0	0	89	0	0	0	0	0	0	89	
						ANALYTICAL CHEMISTRY	0	0	0	89	0	0	0	0	0	0	89	
						APPLIED CHEMISTRY	0	0	0	89	0	0	0	0	0	0	89	
						BIOCHEMISTRY	0	0	0	89	0	0	0	0	0	0	89	
					Semester Total				89									
					semester 5	INORGANIC CHEMISTRY	0	0	0	0	69	0	0	0	0	0	69	
						ORGANIC CHEMISTRY	0	0	0	0	69	0	0	0	0	0	69	
						PHYSICAL CHEMISTRY	0	0	0	0	69	0	0	0	0	0	69	
						ANALYTICAL CHEMISTRY	0	0	0	0	69	0	0	0	0	0	69	
						BIOCHEMISTRY	0	0	0	0	69	0	0	0	0	0	69	
					Semester Total				69									
					semester 6	INORGANIC CHEMISTRY	0	0	0	0	0	69	0	0	0	0	69	
						ORGANIC CHEMISTRY	0	0	0	0	0	69	0	0	0	0	69	
						PHYSICAL CHEMISTRY	0	0	0	0	0	69	0	0	0	0	69	
						ANALYTICAL CHEMISTRY	0	0	0	0	0	69	0	0	0	0	69	
						BIOCHEMISTRY	0	0	0	0	0	69	0	0	0	0	69	
					Semester Total				69									
					semester 7	PAPER-I: INORGANIC CHEMISTRY	0	0	0	0	0	0	44	0	0	0	44	
						PAPER-II: INORGANIC CHEMISTRY	0	0	0	0	0	0	0	44	0	0	44	
PAPER-III: INORGANIC CHEMISTRY	0	0	0	0		0	0	0	44	0	0	44						
Semester Total				44														
semester 8	PAPER-IV: INORGANIC CHEMISTRY	0	0	0	0	0	0	0	0	44	0	44						
	PAPER-V: INORGANIC CHEMISTRY	0	0	0	0	0	0	0	0	44	0	44						
	PAPER-VI: INORGANIC CHEMISTRY	0	0	0	0	0	0	0	0	44	0	44						
	RESEARCH PROJECT	0	0	0	0	0	0	0	0	0	44	44						
	Semester Total				44													

Faculty – Department – Program – Semester - Course Wise enrollment

BS Biochemistry		Microbiology	0	40	0	0	0	0	0	0	40	
		Carbohydrates and Lipids	0	40	0	0	0	0	0	0	0	40
		Semester Total										
	semester 3	English-III	0	0	44	0	0	0	0	0	0	44
		Introduction to Information & Communication Technologies	0	0	44	0	0	0	0	0	0	44
		Physical Chemistry	0	0	44	0	0	0	0	0	0	44
		Genetics	0	0	44	0	0	0	0	0	0	44
		Proteins and Nucleic Acids	0	0	44	0	0	0	0	0	0	44
		Cell Biology	0	0	44	0	0	0	0	0	0	44
		Semester Total	44									
	semester 4	Food Chemistry	0	0	0	44	0	0	0	0	0	44
		Cell and Tissue Culture	0	0	0	44	0	0	0	0	0	44
		Analytical Chemistry	0	0	0	44	0	0	0	0	0	44
		Human Physiology	0	0	0	44	0	0	0	0	0	44
		Enzymology	0	0	0	44	0	0	0	0	0	44
		Biosafety and Bioethics	44									
		Semester Total	0	0	0	0	35	0	0	0	0	35
	semester 5	Metabolism of Carbohydrates & Lipids	0	0	0	0	35	0	0	0	0	35
		Molecular Biology	0	0	0	0	35	0	0	0	0	35
		Nutritional Biochemistry	0	0	0	0	35	0	0	0	0	35
		Immunology	0	0	0	0	35	0	0	0	0	35
		Plant Biochemistry	35									
		Environmental Biochemistry	0	0	0	0	0	35	0	0	0	35
		Semester Total	0	0	0	0	0	35	0	0	0	35
	semester 6	Metabolism of Amino Acids, Proteins & Nucleic Acids	0	0	0	0	0	35	0	0	0	35
		Biochemical Techniques	0	0	0	0	0	35	0	0	0	35
		Biotechnology	0	0	0	0	0	35	0	0	0	35
		Bioinformatics	35									
Bioenergetics		0	0	0	0	0	0	32	0	0	32	
Industrial Biochemistry		0	0	0	0	0	0	32	0	0	32	
Semester Total		0	0	0	0	0	0	32	0	0	32	

Faculty – Department – Program – Semester - Course Wise enrollment

BS Tourism & HM	Semester 1	English-I	40	0	0	0	0	0	0	0	40	
		Islamic Studies	40	0	0	0	0	0	0	0	0	40
		Introduction to Hospitality	40	0	0	0	0	0	0	0	0	40
		Introduction to Management	40	0	0	0	0	0	0	0	0	40
		Culture Heritage of Pakistan	40	0	0	0	0	0	0	0	0	40
	Semester Total	40										
	Semester 2	English-II	0	40	0	0	0	0	0	0	0	40
		Pakistan Studies	0	40	0	0	0	0	0	0	0	40
		Tourism Resources & Principles	0	40	0	0	0	0	0	0	0	40
		Tourism Concepts & Principles	0	40	0	0	0	0	0	0	0	40
		Introduction to Computer	0	40	0	0	0	0	0	0	0	40
	Semester Total	40										
	semester 3	English-III	0	0	44	0	0	0	0	0	0	44
		Mathematics	0	0	44	0	0	0	0	0	0	44
		Hotel Management-I	0	0	44	0	0	0	0	0	0	44
		Hotel Operations	0	0	44	0	0	0	0	0	0	44
		Travel Operations	0	0	44	0	0	0	0	0	0	44
		Public Relations	0	0	44	0	0	0	0	0	0	44
	Semester Total	44										
	semester 4	Business Communication	0	0	0	44	0	0	0	0	0	44
		Tour Guiding	0	0	0	44	0	0	0	0	0	44
		Business Finance	0	0	0	44	0	0	0	0	0	44
		Hotel Management-II	0	0	0	44	0	0	0	0	0	44
		Culture Resource Management	0	0	0	44	0	0	0	0	0	44
	Semester Total	44										
	semester 5	Organizational & Consumer Behavior	0	0	0	0	44	0	0	0	0	44
		Eco Tourism	0	0	0	0	44	0	0	0	0	44
		Culture Tourism	0	0	0	0	44	0	0	0	0	44
		Global Tourism	0	0	0	0	44	0	0	0	0	44
		Human Resource Management	0	0	0	0	44	0	0	0	0	44
		Hotel Management-III	0	0	0	0	44	0	0	0	0	44
	Semester Total	44										
	semester 6	Management Accounting	0	0	0	0	0	44	0	0	0	44
Tourism Management		0	0	0	0	0	44	0	0	0	44	
Tourism & Hospitality Law		0	0	0	0	0	44	0	0	0	44	
Total Quality Management		0	0	0	0	0	44	0	0	0	44	
Hotel Management-IV		0	0	0	0	0	44	0	0	0	44	

