



Schemes of Studies – Fall - 2024

National University of Pakistan
Islamabad

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1. Faculty of Social Sciences, Humanities and Arts

1.1 Bachelor of Science in Economics

Semester	Summary of Scheme of Studies BS Economics											
	General Edu		Disciplinary		Interdisciplinary		Field Experience		Capstone Project			
	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	Total Courses	Cr. Hrs
First	3	9	2	6	1	3	-	-	-	-	6	18
Second	3	8	2	6	1	3	-	-	-	-	6	17
Third	4	9	2	6	-	-	-	-	-	-	6	15
Fourth	2	4	3	9	1	3	-	-	-	-	6	16
Fifth	-	-	5	15	1	3	-	-	-	-	6	18
Sixth	-	-	6	18	-	-			-	-	6	18
Seventh	-	-	5	15	-	-			-	-	5	15
Eighth	-	-	4	12	-	-	1*	3	1	3	6	18
Total	12	30	29	87	4	12	1	3	1	3	47	135

*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5th Semester onward. Capstone Project and Internship will be credited and graded in 8th Semester.

Semester-Wise Breakdown

Sem	Course Code	Course Title	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN-101	Functional English	Gen Ed	3
	GEN-102	Quantitative Reasoning-I	Gen Ed	3
	GEN-103	Application of Information and Communication Technologies	Gen Ed	3 (2+1)
	STAT-101	Statistics-I	Interdisciplinary	3
	ECO-101	Principles of Microeconomics	Disciplinary	3
	ECO-102	Principles of Macroeconomics	Disciplinary	3
	Total Credit Hours			
2 nd	GEN-104	Expository Writing	Gen Ed	3
	GEN-105	Quantitative Reasoning-II	Gen Ed	3
	GEN-106	Islamic Studies	Gen Ed	2
	STAT-102	Statistics-II	Interdisciplinary	3
	ECO-103	Intermediate Microeconomics	Disciplinary	3
	ECO-104	Mathematical Economics-I	Disciplinary	3
	Total Credit Hours			
3 rd	GEN-107	Environmental Science	Gen Ed	3
	GEN-108	Technical Communication	Gen Ed	2
	GEN-109	Sociology	Gen Ed	2
	GEN-110	Ideology and Constitution of Pakistan	Gen Ed	2
	ECO-201	Intermediate Macroeconomics	Disciplinary	3
	ECO-202	Development Economics-I	Disciplinary	3
	Total Credit Hours			
4 th	GEN-111	Entrepreneurship	Gen Ed	2
	GEN-112	Civics and Community Engagement	Gen Ed	2
	MGT-141	Introduction to Business	Interdisciplinary	3
	ECO-204	Issues in Pakistan Economy	Disciplinary	3
	ECO-205	Research Methodology-I	Disciplinary	3
	ECO-206	Islamic Economics	Disciplinary	3
	Total Credit Hours			

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5 th	IDA-111	Introduction to Accounting	Interdisciplinary	03
	ECO-301	Advanced Microeconomics	Disciplinary	03
	ECO-302	Development Economics-II	Disciplinary	03
	ECO-303	Public Finance	Disciplinary	03
	ECO-304	Mathematical Economics-II	Disciplinary	03
	ECO-305	Econometrics-I	Disciplinary	03
	Total Credit Hours			
6 th	ECO-306	Advanced Macroeconomics	Disciplinary	03
	ECO-307	International Trade	Disciplinary	03
	ECO-308	History of Economic Thought	Disciplinary	03
	ECO-209	Monetary Economics	Disciplinary	03
	ECO-310	Research Methodology-II	Disciplinary	03
	ECO-311	Agricultural Economics	Disciplinary	03
	Total Credit Hours			
7 th	ECO-401	Econometrics-II	Disciplinary	3
	ECO-402	General Equilibrium and Welfare Economics	Disciplinary	3
	ECO-403	Labour Economics	Disciplinary	3
	ECO-	Optional-I	Disciplinary	3
	ECO-	Optional-II	Disciplinary	3
	Total Credit Hours			
8 th	ECO-404	Applied Economics	Disciplinary	3
	ECO-405	Economic Growth	Disciplinary	3
	INT-400	Field Experience/Internship	Field Work	3
	CAP-425	Capstone Project	Capstone Project	3
	ECO-	Optional-III	Disciplinary	3
	ECO-	Optional-IV	Disciplinary	3
	Total Credit Hours			
Total Credit Hours of the Program				135

List of Optional Courses

Course Code	Course Title	Cluster/ Domain	Credit Hours
ECO-410	International Finance	Disciplinary	3
ECO-411	Human Resource Development	Disciplinary	3
ECO-412	Behavioral Economics	Disciplinary	3
ECO-413	Economics of Regulations and Competitive Economy	Disciplinary	3
ECO-414	Population Economics	Disciplinary	3
ECO-415	Environmental Economics	Disciplinary	3
ECO-416	Poverty and Income Distribution	Disciplinary	3
ECO-417	Political Economy	Disciplinary	3
ECO-418	Islamic Banking: Theory and Practice	Disciplinary	3
ECO-419	Comparative Economic System	Disciplinary	3
ECO-420	Natural Resource Economics	Disciplinary	3
ECO-421	Financial Economics	Disciplinary	3
ECO-422	Money, Banking and Financial Institutions	Disciplinary	3
ECO-423	Managerial Economics	Disciplinary	3

1.2 Bachelor of Science in English (Linguistics and Literature)

Semester	Summary of Scheme of Studies											
	General Edu		Disciplinary		Interdisciplinary		Field Experience		Capstone Project			
	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	Total courses	Total Cr.Hrs.
First	3	9	2	6	1	3	-	-	-	-	6	18
Second	3	8	2	6	1	3	-	-	-	-	6	17
Third	4	9	2	6	-	-	-	-	-	-	6	15
Fourth	2	4	2	6	2	6	-	-	-	-	6	16
Fifth	-	-	6	18	-	-	-	-	-	-	6	18
Sixth	-	-	6	18	-	-	-	-	-	-	6	18
Seventh	-	-	6	18	-	-	-	-	-	-	6	18
Eighth	-	-	3	9	-	-	1*	3	1*	3	5	15
Total	12	30	29	87	4	12	1	3	1	3	47	135
*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5 th Semester onward. Capstone Project and Internship will be credited and graded in 8 th Semester.												

Semester-Wise Breakdown

Sem	Course Code	Course Title	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN-101	Functional English	Gen Ed	3
	GEN-102	Quantitative Reasoning-I	Gen Ed	3
	GEN-103	Application of Information and Communication Technologies	Gen Ed	3 (2+1)
	PSY-101	Introduction to Psychology	Interdisciplinary	3
	ENG-111	History of English Literature (from Greek to Modern/Post-Modern era)	Disciplinary	3
	ENG-121	Introduction to Language Studies	Disciplinary	3
Total Credit Hours				18
2 nd	GEN-104	Expository Writing	Gen Ed	3
	GEN-105	Quantitative Reasoning-II	Gen Ed	3
	GEN-106	Islamic Studies	Gen Ed	2
	MCM-112	Mass Communication	Interdisciplinary	3
	ENG-112	Literary Forms and Movements	Disciplinary	3
	ENG-122	Introduction to Phonetics and Phonology	Disciplinary	3
Total Credit Hours				17
3 rd	GEN-107	Environmental Science	Gen Ed	3
	GEN-108	Technical Communication	Gen Ed	2
	GEN-109	Sociology	Gen Ed	2
	GEN-110	Ideology and Constitution of Pakistan	Gen Ed	2
	ENG-211	Classical Poetry	Disciplinary	3
	ENG-221	Introduction to Morphology	Disciplinary	3
Total Credit Hours				15
4 th	GEN-111	Entrepreneurship	Gen Ed	2
	GEN-112	Civics and Community Engagement	Gen Ed	2
	PHL-211	Philosophy	Interdisciplinary	3
	POL-212	Political Science	Interdisciplinary	3
	ENG-212	Semantics	Disciplinary	3
	ENG-222	Classical Drama (Greek and Renaissance)	Disciplinary	3
Total Credit Hours				16
5 th	ENG-311	Rise of the Novel (18 th to 19 th Century)	Disciplinary	3

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	ENG-312	Criticism and Theory	Disciplinary	3
	ENG-313	Romantic Poetry	Disciplinary	3
	ENG-321	Grammar and Syntax	Disciplinary	3
	ENG-322	Pragmatics	Disciplinary	3
	ENG-323	Stylistics	Disciplinary	3
	Total Credit Hours			
6 th	ENG-314	Modern Drama	Disciplinary	3
	ENG-315	Modern Novel	Disciplinary	3
	ENG-316	Modern Poetry	Disciplinary	3
	ENG-324	Psycholinguistics	Disciplinary	3
	ENG-325	Discourse Studies	Disciplinary	3
	ENG-326	Forensic Linguistics	Disciplinary	3
Total Credit Hours				18
7 th	ENG-401	Research Methodology	Disciplinary	3
	ENG-411	Pakistani Literature in English	Disciplinary	3
	ENG-412	Women's Writing	Disciplinary	3
	ENG-421	Sociolinguistics	Disciplinary	3
	ENG-422	Translation Studies	Disciplinary	3
	ENG-423	World Englishes	Disciplinary	3
Total Credit Hours				18
8 th	ENG-424	Applied Linguistics	Disciplinary	3
	ENG-413	American Literature	Disciplinary	3
	ENG-414	Postcolonial Theory and Literature	Disciplinary	3
	INT-400	Field Experience/Internship Program	Field Work	3
	CAP-425	Capstone Project	Project	3
	Total Credit Hours			
Total Credit Hours of the Program			135	

1.3 Bachelor of Science in Fine Arts

Semester	Summary of Scheme of Studies Bachelor of Fine Arts (BFA)											
	General Edu		Disciplinary		Interdisciplinary		Field Experience		Capstone Project			
	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	Total Courses	Total Cr. Hrs.
First	3	9	2	6	1	3	-	-	-	-	6	18
Second	3	8	2	7	1	3	-	-	-	-	6	18
Third	4	9	2	7	-	-	-	-	-	-	6	16
Fourth	2	4	2	7	2	6	-	-	-	-	6	17
Fifth	-	-	6	18	-	-	-	-	-	-	6	18
Sixth	-	-	6	18	-	-	-	-	-	-	6	18
Seventh	-	-	6	20	-	-	-	-	-	-	6	20
Eighth	-	-	3	11	-	-	1*	3	1*	3	5	17
Total	12	30	29	94	4	12	1	3	1	3	47	142
*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5 th Semester onward. Capstone Project and Internship will be credited and graded in 8 th Semester.												

Semester-Wise Breakdown

Sem	Course Code	Course Title	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN-101	Functional English	Gen Ed	3
	GEN-102	Quantitative Reasoning-I	Gen Ed	3
	GEN-103	Application of Information and Communication Technologies	Gen Ed	3 (2+1)
	PSY-101	Introduction to Psychology	Interdisciplinary	3
	FA-101	The Language of Art (theory)	Disciplinary	3
	FA-102	Fine Arts Studio I (drawing,)	Disciplinary	3
	Total Credit Hours			
2 nd	GEN-104	Expository Writing	Gen Ed	3
	GEN-105	Quantitative Reasoning-II	Gen Ed	3
	GEN-106	Islamic Studies	Gen Ed	2
	MCM-112	Mass Communication	Interdisciplinary	3
	FA-103	History of Art-I	Disciplinary	3
	FA-104	Fine Arts Studio II (painting, portraiture)	Disciplinary	4
	Total Credit Hours			
3 rd	GEN-107	Environmental Science	Gen Ed	3
	GEN-108	Technical Communication	Gen Ed	2
	GEN-109	Sociology	Gen Ed	2
	GEN-110	Ideology and Constitution of Pakistan	Gen Ed	2
	FA-201	History of Art II	Disciplinary	3
	FA-202	Fine Arts Studio III (life drawing, painting)	Disciplinary	4
	Total Credit Hours			
4 th	GEN-111	Entrepreneurship	Gen Ed	2
	GEN-112	Civics and Community Engagement	Gen Ed	2
	IDP-113	Photography	Interdisciplinary	3
	IDH-114	History	Interdisciplinary	3
	FA-203	Islamic Art and Architecture I	Disciplinary	3
	FA-204	Fine Arts Studio IV (Calligraphy, Art in the age of Camera)	Disciplinary	4
	Total Credit Hours			

5 th	FA-311	Islamic Art and Architecture II (Indo-Islamic Architecture)	Disciplinary	3
	FA-312	Introduction to Graphic Arts and Digital Design (theory)	Disciplinary	2
	FA-313	Tools and Techniques of Graphic Communication (Studio)	Disciplinary	4
	FA-314	Print Making/Minatare, I (Studio)	Disciplinary	3
	FA-315	Landscape, Nature Study (Studio)	Disciplinary	3
	FA-316	Ceramics (Studio)	Disciplinary	3
	Total Credit Hours			
6 th	FA-317	History Of Art III	Disciplinary	3
	FA-318	Visual Art In Pakistan I (Theory)	Disciplinary	2
	FA-319	Print Making/Minatare II (Studio)	Disciplinary	4
	FA-320	Conceptual Drawing, Painting (Studio)	Disciplinary	4
	FA-321	Sculpture (theory)	Disciplinary	2
	FA-322	Sculpture I (Studio)	Disciplinary	3
	Total Credit Hours			
7 th	FA-411	Contemporary Art and Architecture in Pakistan	Disciplinary	3
	FA-412	History of Art IV	Disciplinary	3
	FA-413	Print Making/Minatare III (Studio)	Disciplinary	4
	FA-414	Figure Composition I (Studio)	Disciplinary	4
	FA-415	Architectural Drawing, City Scope	Disciplinary	3
	FA-416	Sculpture II	Disciplinary	3
	Total Credit Hours			
8 th	FA-417	Critical Analysis of Art and Architecture	Disciplinary	3
	FA-418	Figure Composition II (Studio)	Disciplinary	4
	FA-419	Print Making/Minatare IV	Disciplinary	4
	INT-400	Field Work (Exhibition of BFA)	Field Work	3
	CAP-425	Capstone Project (Any Medium of art)	Project	3
	Total Credit Hours			
Total Credit Hours of Program				142

1.4 Bachelor of Science in Health & Physical Education

Semester	Summary of Scheme of Studies										Total Courses	Total Cr. Hrs.
	General Edu		Disciplinary		Interdisciplinary		Field Experience		Capstone Project			
	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.		
First	3	9	3	7			-	-	-	-	6	16
Second	3	8	3	8	1	3	-	-	-	-	7	19
Third	3	7	4	11	-	-	-	-	-	-	7	18
Fourth	2	4	5	15	-	-	-	-	-	-	7	19
Fifth	-	-	5	14	1	3			-	-	6	17
Sixth	1	3	4	12	1	3			-	-	6	18
Seventh	-	-	4	12	1	3			-	-	5	15
Eighth	-	-	3	9	-	-	1*	3	1	3	5	15
Total	12	31	31	88	4	12	1	3	1	3	49	137

*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5th Semester onward. Capstone Project and Internship will be credited and graded in 8th Semester.

Semester-Wise Breakdown

Sem	Course Code	Course Title	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN-101	Functional English	Gen Ed	3
	GEN-102	Quantitative Reasoning-I	Gen Ed	3
	GEN-103	Application of Information and Communication Technologies	Gen Ed	3 (2+1)
	HPE -101	Sports Nutrition	Disciplinary	3
	HPE-102	Games-I (Badminton, Basket Ball, Foot Ball)	Disciplinary	2
	HPE-103	Athletics-I (Throwing Events)	Disciplinary	2
	Total Credit Hours			
2 nd	GEN-104	Expository Writing	Gen Ed	3
	GEN-105	Quantitative Reasoning-II	Gen Ed	3
	GEN-106	Islamic Studies	Gen Ed	2
	SOW-101	Social Work	Interdisciplinary	3
	HPE-111	Games-II (Tennis, Volley Ball, Hockey)	Disciplinary	2+1
	HPE-112	Athletics-II (Long Races)	Disciplinary	2+1
	HPE-113	Gymnastic I	Disciplinary	1+1
Total Credit Hours				19
3 rd	GEN-107	Environmental Sciences	Gen Ed	3+0
	GEN-109	Sociology	Gen Ed	2+0
	GEN-110	Ideology and Constitution of Pakistan	Gen Ed	2+0
	HPE-201	Introduction of Statistics in Sports	Disciplinary	3+0
	HPE-202	Talent Identification in Sports	Disciplinary	2+0
	HPE-203	Games-III (Cricket, Handball & Squash)	Disciplinary	2+1
	HPE-204	Athletics-III (Sprint Races)	Disciplinary	2+1
Total Credit Hours				18
4 th	GEN-112	Civic and Community Engagement	Gen Ed	2+0
	GEN-113	Islamic History and Culture	Gen Ed	2+0
	HPE-211	Philosophical Basis of Physical Education	Disciplinary	3+0
	HPE-212	Sports Bio Mechanics	Disciplinary	2+1
	HPE-213	Science of Movements	Disciplinary	3+0

	HPE-214	Games-IV (Netball, Swimming & Wrestling)	Disciplinary	2+1
	HPE-215	Athletics-IV (Jumps)	Disciplinary	2+1
5 th	Total Credit Hours			19
	HPE-301	Basis of Human Anatomy	Interdisciplinary	3+0
	HPE-302	Gymnastic-II	Disciplinary	1+1
	HPE-303	Test and Measurement Evaluation in physical education and sports	Disciplinary	3+0
	HPE-304	Science of sports training	Disciplinary	3+0
	HPE-305	Administration and management in sports	Disciplinary	3+0
	HPE-306	Research Methodology	Disciplinary	3+0
	Total Credit Hours			17
6 th	GEN-114	Math	Gen Ed	3
	HPE-311	Human Physiology	Interdisciplinary	3+0
	HPE-312	Physical Education for Special Population	Disciplinary	3+0
	HPE-313	Sports Psychology	Disciplinary	3+0
	HPE-314	Scientific Sports Coaching	Disciplinary	3+0
	HPE-315	Curriculum development in Physical Education	Disciplinary	3+0
	Total Credit Hours			18
7 th	HPE-401	Biochemistry	Interdisciplinary	3+0
	HPE-402	Common Sports Injuries	Disciplinary	3+0
	HPE-403	Specializations in one Game	Disciplinary	2+1
	HPE-404	Adopted Physical Education	Disciplinary	3+0
	HPE-405	Specialization in one Athletics event	Disciplinary	2+1
	Total Credit Hours			15
8 th	HPE-411	Planning in sports facilities	Disciplinary	3+0
	HPE-412	Adapted Physical Education	Disciplinary	3+0
	HPE-413	Introduction of modern Technologies in sports	Disciplinary	3+0
	INT-400	Field Experience (Internship)	Field Work	3+0
	CAP-425	Capstone Project	Project	3+0
	Total Credit Hours			15
Total Credit Hours of Program			137	

1.5 Bachelor of Science in Islamic Studies

	Summary of Scheme of Studies BS Islamic Studies											
	General Edu		Disciplinary		Interdisciplinary		Field Experience		Capstone Project			
	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	Total Courses	Total Cr. Hrs
First	3	9	2	6	1	3	-	-	-	-	6	18
Second	3	8	2	6	1	3	-	-	-	-	6	17
Third	4	9	2	6	-	-	-	-	-	-	6	15
Fourth	2	4	2	6	2	6	-	-	-	-	6	16
Fifth	-	-	6	18	-	-	-	-	-	-	6	18
Sixth	-	-	6	18	-	-	-	-	-	-	6	18
Seventh	-	-	6	18	-	-	-	-	-	-	6	18
Eighth	-	-	3	9	-	-	1*	3	1*	3	5	15
Total	12	30	29	87	4	12	1	3	1	3	47	135
<p>*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5th Semester onward. Capstone Project and Internship will be credited and graded in 8th Semester.</p>												

Semester-Wise Breakdown

Sem	Course Code	Course Title	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN-101	Functional English	Gen Ed	3
	GEN-102	Quantitative Reasoning-I	Gen Ed	3
	GEN-103	Application of Information and Communication Technologies	Gen Ed	3 (2+1)
	PSY-101	Introduction to Psychology	Interdisciplinary	3
	ISL-100	Uloom ul Quran	Disciplinary	3
	ISL-101	History and compilation of Hadith	Disciplinary	3
	Total Credit Hours			18
2 nd	GEN-104	Expository Writing	Gen Ed	3
	GEN-105	Quantitative Reasoning-II	Gen Ed	3
	GEN-106	Islamic Studies	Gen Ed	2
	MCM-112	Mass Communication	Interdisciplinary	3
	ISL-102	Arabic Language-I	Disciplinary	3
	ISL-103	History of Fiqh	Disciplinary	3
	Total Credit Hours			17
3 rd	GEN-107	Environmental Science	Gen Ed	3
	GEN-108	Technical Communication	Gen Ed	2
	GEN-109	Sociology	Gen Ed	2
	GEN-110	Ideology and Constitution of Pakistan	Gen Ed	2
	ISL-201	Arabic Language-II	Disciplinary	3
	ISL-202	Introduction to the Selected topics of The Holy Quran	Disciplinary	3
	Total Credit Hours			15
4 th	GEN-111	Entrepreneurship	Gen Ed	2
	GEN-112	Civics and Community Engagement	Gen Ed	2
	POL-212	Political Science	Interdisciplinary	3
	ISL-214	Intellectual History of the Contemporary Muslim World	Interdisciplinary	3
	ISL-203	History of Tafseer	Disciplinary	3
	ISL-204	Usool-ul-Fiqh	Disciplinary	3
	Total Credit Hours			16

5 th	ISL-300	Study of Seerah of Holy Prophet (PBUH)	Disciplinary	3
	ISL-301	Arabic Through Quranic Text	Disciplinary	3
	ISL-302	Textual Study of al-Quran-I	Disciplinary	3
	ISL-303	Textual Study of Hadith-1	Disciplinary	3
	ISL-304	Study of Islamic Fiqh-I (العبادات)	Disciplinary	3
	ISL-305	Islamic Morals (علم الأخلاق)	Disciplinary	3
	Total Credit Hours			
6 th	ISL-306	Uloom-UI-Hadith	Disciplinary	3
	ISL-307	Textual Study of Muslim Family Laws	Disciplinary	3
	ISL-308	Textual Study of al-Quran – II	Disciplinary	3
	ISL-309	The Ethics of Disagreement in Islam	Disciplinary	3
	ISL-310	Introduction to World Religions	Disciplinary	3
	ISL-311	Study of Islamic Fiqh II (فقه الماليات)	Disciplinary	3
	Total Credit Hours			
7 th	ISL-401	Al- Dawah wal Irshad	Disciplinary	3
	ISL-402	Islam & Modern Political Thought	Disciplinary	3
	ISL-403	Methodology of Research in Islamic Studies	Disciplinary	3
	ISL-404	History of Islamic Culture and Civilization	Disciplinary	3
	ISL-405	Textual study of Al-Quran-III	Disciplinary	3
	ISL-406	Study of Islamic Fiqh III (فقه الجنایات)	Disciplinary	3
	Total Credit Hours			
8 th	ISL-407/ ISL 408	Islamic Economics / Study of Tasawwuf	Disciplinary	3
	ISL-409/ ISL-410	Objectives of Shariah / Study of selected Commentaries of Hadith	Disciplinary	3
	ISL-411/ ISL-412/ ISL-413	Ilm Ul-Kalam / Islam and Science / Islam & Modern Social Thought	Disciplinary	3
	INT-400	Field Work/Internship	Field Work	3
	CAP-425	Capstone Project	Project	3
	Total Credit Hours			
Total Credit Hours of Program				135

1.6 Bachelor of Science in Political Science

Semester	Summary of Scheme of Studies Political Science											
	General Edu		Disciplinary		Interdisciplinary		Field Experience		Capstone Project			
	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	Total	Cr. Hrs
First	3	9	2	6	1	3	-	-	-	-	6	18
Second	3	8	2	6	1	3	-	-	-	-	6	17
Third	4	9	2	6	-	-	-	-	-	-	6	15
Fourth	2	4	2	6	2	6	-	-	-	-	6	16
Fifth	-	-	6	18	-	-	-	-	-	-	6	18
Sixth	-	-	5	15	-	-	-	-	-	-	5	15
Seventh	-	-	5	15	-	-	-	-	-	-	5	15
Eighth	-	-	4	12	-	-	1*	3	1*	3	6	18
Total	12	30	28	84	4	12	1	3	1	3	46	132
*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5 th Semester onward. Capstone Project and Internship will be credited and graded in 8 th Semester.												

Semester-Wise Breakdown

Sem	Course Code	Course Title	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN-101	Functional English	Gen Ed	3
	GEN-102	Quantitative Reasoning-I	Gen Ed	3
	GEN-103	Application of Information and Communication Technologies	Gen Ed	3 (2+1)
	PSY-101	Introduction to Psychology	Interdisciplinary	3
	POL-101	Introduction to Political Science – I	Disciplinary	3
	POL-102	Introduction to International Relations	Disciplinary	3
	Total Credit Hours			18
2 nd	GEN-104	Expository Writing	Gen Ed	3
	GEN-105	Quantitative Reasoning-II	Gen Ed	3
	GEN-106	Islamic Studies	Gen Ed	2
	MCM-112	Mass Communication	Interdisciplinary	3
	POL-103	Introduction to Political Science – II	Disciplinary	3
	POL-111	Constitutional development in Pakistan	Disciplinary	3
	Total Credit Hours			17
3 rd	GEN-107	Environmental Science	Gen Ed	3
	GEN-108	Technical Communication	Gen Ed	2
	GEN-109	Sociology	Gen Ed	2
	GEN-110	Ideology and Constitution of Pakistan	Gen Ed	2
	POL-211	Pakistan Movement	Disciplinary	3
	POL-212	Federalism in Pakistan	Disciplinary	3
	Total Credit Hours			15
4 th	GEN-111	Entrepreneurship	Gen Ed	2
	GEN-112	Civics and Community Engagement	Gen Ed	2
	PHL-211	Philosophy	Interdisciplinary	3
	IDH-212	Introduction to History	Interdisciplinary	3
	POL-213	Introduction to Public Administration	Disciplinary	3
	POL-214	Local Government in Pakistan	Disciplinary	3
	Total Credit Hours			16

5 th	POL-311	Western Political Philosophy- I	Disciplinary	3
	POL-312	Muslim Political Philosophy –I	Disciplinary	3
	POL-313	Political System of the Developed Countries (U.K, U.S.A)	Disciplinary	3
	POL-314	Comparative And Political Developmental Politics	Disciplinary	3
	POL-315	Introduction to Human Rights	Disciplinary	3
	POL-316	Civil and Military Bureaucracy in Pakistan	Disciplinary	3
	Total Credit Hours			
6 th	POL-317	Foreign Policy Analysis	Disciplinary	3
	POL-318	Western Political Philosophy- II	Disciplinary	3
	POL-319	Muslim Political Philosophy –II	Disciplinary	3
	POL-320	Political System of Developing Countries(China ,India)	Disciplinary	3
	POL-321	Research Methodology	Disciplinary	3
	Total Credit Hours			
7 th	POL-411	Contemporary Issues in Global Politics	Disciplinary	3
	POL-412	International Law and International Organizations	Disciplinary	3
	POL-413	Political Economy	Disciplinary	3
	POL-414	Political Ideologies	Disciplinary	3
	POL-415	Foreign Policy of Pakistan	Disciplinary	3
	Total Credit Hours			
8 th	POL-416	Political System of the Muslim World (Iran, Turkey & the Kingdom of Saudi Arabia)	Disciplinary	3
	POL-417	Major Issues of Pakistani Politics	Disciplinary	3
	POL-418	Political Parties & Elections In Pakistan	Disciplinary	3
	POL-419	Social Change and Political Development	Disciplinary	3
	INT-400	Field Experience/Internship Program	Field Work	3
	CAP-425	Capstone Project	Project	3
	Total Credit Hours			
Total Credit Hours of the Program				132

1.7 Bachelor of Science in Psychology

Semester	Summary of Scheme of Studies											
	General Education		Disciplinary		Interdisciplinary		Field Experience		Capstone Project/Thesis			
	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.	No.	Cr. Hrs.	No.	Cr. Hrs.	Total Courses	Total Cr. Hrs.
First	4	11	1	3	1	3	-	-	-	-	6	17
Second	4	11	1	3	1	3	-	-	-	-	6	17
Third	4	8	1	4	1	3	-	-	-	-	6	15
Fourth	-	-	5	15	1	3	-	-	-	-	6	18
Fifth	-	-	5	16	-	-			-	-	5	16
Sixth	-	-	5	15	-	-			-	-	5	15
Seventh	-	-	4	12	-	-			1	3	5	15
Eighth	-	-	4	12	-	-	1*	3	1*	3	6	18
Total	12	30	26	80	4	12	1	3	2	6	45	131
*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5 th Semester onward. Capstone Project and Internship will be credited and graded in 8 th Semester.												

Semester-Wise Breakdown

Sem	Course Code	Course Title	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN-101	Functional English	Gen Ed	03
	GEN-102	Quantitative Reasoning-I	Gen Ed	03
	GEN-106	Islamic Studies	Gen Ed	02
	GEN-103	Application of Information and Communication Technologies	Gen Ed	03 (2+1)
	SOW-101	Social Work	Interdisciplinary	03
	PSY-101	Introduction to Psychology	Disciplinary	03
	Total Credit Hours			
2 nd	GEN-104	Expository Writing	Gen Ed	03
	GEN-105	Quantitative Reasoning-II	Gen Ed	03
	GEN-109	Sociology	Gen Ed	02
	GEN-107	Environmental Science	Gen Ed	03
	MCM-112	Mass Communication	Interdisciplinary	03
	PSY-103	History and Schools of Psychology	Disciplinary	03
	Total Credit Hours			
3 rd	GEN-110	Ideology and Constitution of Pakistan	Gen Ed	02
	GEN-111	Entrepreneurship	Gen Ed	02
	GEN-108	Technical Communication	Gen Ed	02
	GEN-112	Civics and Community Engagement	Gen Ed	02
	SPS-211	Introduction to Statistics	Interdisciplinary	03
	PSY-211	Experimental Psychology	Disciplinary	4(3+1)
	Total Credit Hours			
4 th	SPS-212	Data Analysis and SPSS	Interdisciplinary	03
	PSY-213	Ethical Issues in Psychology	Disciplinary	03
	PSY-214	Theories of Personality	Disciplinary	03
	PSY-225	Psychopathology-I	Disciplinary	03
	PSY-226	Social Psychology	Disciplinary	03
	PSY-227	Counseling Psychology	Disciplinary	03
	Total Credit Hours			

	PSY-312	Environmental Psychology	Disciplinary	03
	PSY-313	Biological Basis of Behavior	Disciplinary	4(3+1)
	PSY-321	Assessment and Testing	Disciplinary	03
	PSY-324	Research Methodology-I	Disciplinary	03
	PSY-325	Psychopathology-II	Disciplinary	03
	Total Credit Hours			16
6 th	PSY-311	Statistics in Psychology	Disciplinary	03
	PSY-314	Cognitive Psychology	Disciplinary	03
	PSY-322	Clinical Psychology-I	Disciplinary	03
	PSY-323	Research Methodology-II	Disciplinary	03
	PSY-325	Cross-Cultural Psychology	Disciplinary	03
	Total Credit Hours			15
7 th	PSY-411	Developmental Psychology	Disciplinary	03
	PSY-422	Clinical Psychology-II	Disciplinary	03
	PSY-423	Research Thesis-I	Capstone Project	03
		Specialization-I	Disciplinary	03
		Specialization-II	Disciplinary	03
	Total Credit Hours			15
8 th	PSY-412	Positive Psychology	Disciplinary	03
	PSY-415	Educational Psychology	Disciplinary	03
	INT-400	Field Work/Internship	Field Work	03
	CAP-425	Capstone Project	Capstone Project	03
		Specialization-III	Disciplinary	03
		Specialization-IV	Disciplinary	03
	Total Credit Hours			18
Total Credit Hours of the Program			131	

List of Specialization

Course Code	Course Title
PSY-501	Rehabilitation for Substance Abuse
PSY-502	Neurological Disorders
PSY-503	Family and Marital Counselling
PSY -504	Educational Psychology
PSY-505	Health Psychology
PSY -506	Positive psychology
PSY -507	Adolescent Mental Health
PSY -508	Forensic Psychology
PSY-509	Child Psychology
PSY-510	Military Psychology

1.8 Bachelor of Science in Special Education

Semester	Summary of Scheme of Studies BS Special Education											
	General Edu		Disciplinary		Interdisciplinary		Field Experience		Capstone Project			
	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	Total Courses	Total Cr. Hrs.
First	4	11	1	3	1	3	-	-	-	-	6	17
Second	4	10	1	3	1	3	-	-	-	-	6	16
Third	4	9	1	3	1	3	-	-	-	-	6	15
Fourth	-	-	5	15	1	3	-	-	-	-	6	18
Fifth	-	-	5	15	-	-	1*	3	-	-	6	18
Sixth	-	-	5	15	-	-	1*	3	-	-	6	18
Seventh	-	-	5	15	-	-	1*	3	-	-	6	18
Eighth	-	-	4	12	-	-	1*	3	1	3	6	18
Total	12	30	27	81	4	12	4	12	1	3	48	138

*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5th Semester onward. Capstone Project and Internship will be credited and graded in 8th Semester.

Semester-Wise Breakdown

Sem	Course Code	Course Title	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN-101	Functional English	Gen Ed	03
	GEN-102	Quantitative Reasoning-I	Gen Ed	03
	GEN-106	Islamic Studies	Gen Ed	02
	GEN-103	Application of Information and Communication Technologies	Gen Ed	3 (2+1)
	PSY-101	Introduction to Psychology	Interdisciplinary	03
	SPE-101	Introduction to Special Education	Disciplinary	03
	Total Credit Hours			
2 nd	GEN-104	Expository writing	Gen Ed	03
	GEN-105	Quantitative Reasoning-II	Gen Ed	03
	GEN-109	Sociology	Gen Ed	02
	GEN-112	Civics and Community Engagement	Gen Ed	02
	NHP-103	Nutrition, Health and Prevention	Interdisciplinary	03
	SPE-102	Human Growth and Development	Disciplinary	03
	Total Credit Hours			
3 rd	GEN-110	Ideology and Constitution of Pakistan	Gen Ed	02
	GEN-111	Entrepreneurship	Gen Ed	02
	GEN-108	Technical Communication	Gen Ed	02
	GEN-107	Environmental Science	Gen Ed	03
	SPS-211	Introduction to Statistics	Interdisciplinary	03
	SPE-112	Introduction to Exceptionalities	Disciplinary	03
	Total Credit Hours			
4 th	PSY-212	Positive Psychology	Interdisciplinary	03
	SPE-211	Behavior Management	Disciplinary	03
	SPE-212	School, Family and Community Collaboration	Disciplinary	03
	SPE-213	Inclusive Education	Disciplinary	03
	SPE-214	Differentiated Practices in Assessment	Disciplinary	03
	SPE-215	Developmental Psychology	Disciplinary	03
Total Credit Hours				18

5 th	SPE-315	Foundations of Counseling, Guidance and Therapy	Disciplinary	03
	SPE-316	Introduction and Curriculum Development in Physical Education	Disciplinary	03
	SPE-317	Introduction and Curriculum Adaptation for Children with Visual Impairment	Disciplinary	03
	SPE-318	Introduction and Curriculum Adaptation for Children with Hearing Impairment	Disciplinary	03
	SPE-319	Braille and its Application	Disciplinary	03
	SPE-333	Field Work-I (Internship with Physical Disabilities)	Field Experience	03
	Total Credit Hours			
6 th	SPE-320	Introduction and Curriculum Adaptation for Children with Learning Disabilities	Disciplinary	03
	SPE-321	Orientation and Mobility Skills for Visual Impairment	Disciplinary	03
	SPE-323	Introduction and Curriculum Adaptation for Autism Spectrum Disorders	Disciplinary	03
	SPE-324	Introduction and Curriculum Adaptation for Children with Intellectual and Developmental Disabilities	Disciplinary	03
	SPE-325	Individualized Education Program	Disciplinary	03
	SPE-326	Field Work-II (Internship with Intellectual Disabilities)	Field Experience	03
	Total Credit Hours			
7 th	SPE-411	Introduction to Speech and Language Therapy	Disciplinary	03
	SPE-412	Family Science and Interventions	Disciplinary	03
	SPE-414	Research in Special Education	Disciplinary	03
	SPE-415	Teaching Strategies in Special Education	Disciplinary	03
	SPE-416	Speech and Language Development	Disciplinary	03
	SPE-417	Field Work-III (Internship with Learning Disability)	Field Experience	03
	Total Credit Hours			
8 th	SPE-418	Behavior Management	Disciplinary	03
	SPE-419	Ethical Issues in Special Education	Disciplinary	03
	SPE-421	Management and Administration of Special Education	Disciplinary	03
	SPE-422	Therapeutics Interventions in Autism Spectrum Disorder	Disciplinary	03
	INT-400	Field Work- (Internship with Autism)	Field Experience	03
	CAP-425	Capstone Project	Capstone Project	03
Total Credit Hours				18
Total Credit Hours of the Program				138

1.9 Bachelor of Science in Urdu

Semester	Summary of Scheme of Studies BS Urdu											
	General Edu		Disciplinary		Interdisciplinary		Field Experience		Capstone Project			
	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	Total Courses	Total Cr. Hrs.
First	4	10	1	3	1	3	-	-	-	-	6	16
Second	3	8	2	6	1	3	-	-	-	-	6	17
Third	3	8	2	6	1	3	-	-	-	-	6	17
Fourth	2	4	3	9	1	3	-	-	-	-	6	16
Fifth	-	-	5	15	-	-	-	-	-	-	5	15
Sixth	-	-	6	18	-	-	-	-	-	-	6	18
Seventh	-	-	6	18	-	-	-	-	-	-	6	18
Eighth	-	-	4	12	-	-	1*	3	1*	3	6	18
Total	12	30	29	87	4	12	1	3	1	3	47	135

*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5th Semester onward. Capstone Project and Internship will be credited and graded in 8th Semester.

Semester-wise Breakdown

Sem	Course Code	Course Title	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN- 101	Functional English	Gen. Ed	3
	GEN-114	Math	Gen. Ed	3
	GEN-106	Islamic Studies	Gen. Ed	2
	GEN-113	Islamic History and Culture	Gen. Ed	2
	PSY 101	Introduction to Psychology	Interdisciplinary	3
	URDU 111	اُردو زبان: تشکیل و ارتقا	Disciplinary	3
2 nd	Total Credit Hours			16
	GEN-104	Expository Writing	Gen. Ed	3
	GEN- 109	Sociology	Gen. Ed	2
	GEN--122	Basics of Statistics	Gen. Ed	3
	WC 201	عالمی کلاسیک کے تراجم	Interdisciplinary	3
	URDU 112	اُردو زبان: قواعد و املا	Disciplinary	3
	URDU 122	بیان و بدیع و عروض	Disciplinary	3
3 rd	Total Credit Hours			17
	GEN-107	Environmental Science	Gen. Ed	3
	GEN-103	Application of Information and Communication Technologies	Gen. Ed	3 (2+1)
	GEN-112	Civics and Community Engagement	Gen. Ed	2
	PKL 301	پاکستانی زبانوں کا ادب	Interdisciplinary	3
	URDU 211	اُردو کی نثری اصناف 1.	Disciplinary	3
	URDU 221	اُردو کی نثری اصناف 2.	Disciplinary	3
4 th	Total Credit Hours			17
	GEN-110	Ideology and Constitution of Pakistan	Gen. Ed	2
	GEN-111	Entrepreneurship	Gen. Ed	2
	PPH 401	پاکستان (سیاسی تاریخ)	Interdisciplinary	3
	URDU 212	تاریخ ادب اُردو اور ادبی تحریکیں	Disciplinary	3
	URDU 222	شعری اصناف: تعارف اور تفہیم- 1	Disciplinary	3
	URDU 223	شعری اصناف: تعارف اور تفہیم- 2	Disciplinary	3
	Total Credit Hours			16
5 th	URDU 321	اُردو داستان اور ناول: فکری اور فنی مباحث	Disciplinary	3

	URDU 322	اُردو غزل کا فنی مطالعہ	Disciplinary	3
	URDU 323	تحریر و انشا (عملی تربیت)	Disciplinary	3
	URDU 324	تحقیق و تنقید (بُنیادی مباحث)	Disciplinary	3
	URDU 325	ادبی اصطلاحات	Disciplinary	3
	Total Credit Hours			15
6 th	URDU 326	اُردو افسانہ اور ڈراما: فکری اور فنی مطالعہ	Disciplinary	3
	URDU 327	بیسویں صدی میں ناول کا ارتقا اور اُس کے فکری اور فنی مباحث	Disciplinary	3
	URDU 328	اُردو نظم: فکری اور فنی مطالعہ	Disciplinary	3
	URDU 329	جدید اُردو غزل کا اُسلوبیاتی مطالعہ (لہجے، علامات اور امیجری کے حوالے سے)	Disciplinary	3
	URDU 330	جدید اُردو نظم کا فکری و فنی مطالعہ (بیئت، موضوعات اور اسالیب کے حوالے سے)	Disciplinary	3
	URDU 331	اُردو کے معروف اور اہم کردار	Disciplinary	3
	Total Credit Hours			18
7 th	URDU 411	اُردو فکشن میں تاریخی و تہذیبی شعور	Disciplinary	3
	URDU 412	اُصولِ تحقیق و تدوین	Disciplinary	3
	URDU 413	مرزا غالب کا خصوصی مطالعہ	Disciplinary	3
	URDU 414	علامہ اقبال کا خصوصی مطالعہ	Disciplinary	3
	URDU 415	اُردو ادب کا تانیٹی مطالعہ	Disciplinary	3
	URDU 416	اُردو لسانیات	Disciplinary	3
	Total Credit Hours			18
	URDU 417	نئے تنقیدی مباحث	Disciplinary	3
	URDU 418	فروع اُردو کے اہم ادارے	Disciplinary	3
	URDU 419	اُردو نثر کے اسالیب (مزاح، سفرنامہ، آپ بیتی، فکری، فنی اور اُسلوبیاتی مطالعہ)	Disciplinary	3
	URDU 421	اُردو ادب کا مابعدنوآبادیاتی مطالعہ	Disciplinary	3
	INT 400	اُردو زبان و ادب	Field Work	3
	CAP 425	تحقیقی منصوبہ- تحقیقی مقالہ Capstone Project	Capstone Project	3
	Total Credit Hours			18
Total Credit Hours of the Program			135	

2. Faculty of Natural and Applied Sciences

2.1 Bachelor of Science in Botany

Semester	Summary of Scheme of Studies BS Botany											
	General Edu		Disciplinary		Interdisciplinary		Field Experience		Capstone Project			
	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	No of Courses	Cr. Hrs	Total Courses	Cr. Hrs
First	03	09	01	04	01	03	-	-	-	-	5	16
Second	03	08	02	07	01	03	-	-	-	-	6	18
Third	04	09	01	04	01	03	-	-	-	-	6	16
Fourth	02	04	03	10	01	03	-	-	-	-	6	17
Fifth	-	-	05	15	-	-	-	-	-	-	5	15
Sixth	-	-	05	15	-	-	-	-	-	-	5	15
Seventh	-	-	05	15	-	-	-	-	-	-	5	15
Eighth			03	09	-	-	01	03	01	03	5	15
Total	12	30	25	79	04	12	01	03	01	03	43	127

*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5th Semester onward. Capstone Project and Internship will be credited and graded in 8th Semester.

Semester-Wise Breakdown

Sem	Course Code	Course Title	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN-101	Functional English	Gen Ed	3
	GEN-102	Quantitative Reasoning-I	Gen Ed	3
	GEN-103	Application of Information and Communication Technologies	Gen Ed	3 (2+1)
	ID ZOOL 101/101L	Animal Form and Function –I	Interdisciplinary	2+1
	BOT-101/101L	Diversity of Plants	Disciplinary	3+1
	Total Credit Hours			16
2 nd	GEN-104	Expository Writing	Gen Ed	3
	GEN-105	Quantitative Reasoning-II	Gen Ed	3
	GEN-106	Islamic Studies	Gen Ed	2
	ID ZOOL-102/102L	Animal Form and Function –II	Interdisciplinary	2+1
	BOT-102/102L	Plant Systematics & development	Disciplinary	3+1
	BOT-103	Biostatistics	Disciplinary	3
Total Credit Hours			18	
3 rd	GEN-107	Environmental Science	Gen Ed	3
	GEN-108	Technical Communication	Gen Ed	2
	GEN-109	Sociology	Gen Ed	2
	GEN-110	Ideology and Constitution of Pakistan	Gen Ed	2
	BOT-201/201L	Cell Biology, Genetics & Evolution	Disciplinary	3+1
	ID CHEM-201/201L	Inorganic Chemistry	Interdisciplinary	2+1
Total Credit Hours			16	
4 th	GEN-111	Entrepreneurship	Gen Ed	2
	GEN-112	Civics and Community Engagement	Gen Ed	2
	ID CHEM-202/202L	Organic Chemistry	Interdisciplinary	2+1
	BOT-202/202L	Plant Physiology & Ecology	Disciplinary	3+1
	BOT-203/203L	Biodiversity & Conservation	Disciplinary	2+1
	BOT-204/204L	Ethnobotany	Disciplinary	2+1
Total Credit Hours			17	
5 th	BOT-301/301L	Bacteriology and Virology	Disciplinary	2+1

Schemes of Studies

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	BOT-302/302L	Phycology and Bryology	Disciplinary	2+1
	BOT-303/303L	Mycology and Plant Pathology	Disciplinary	2+1
	BOT-304/304L	Diversity of Vascular Plants	Disciplinary	2+1
	BOT-305/305L	Plant Systematics	Disciplinary	2+1
	Total Credit Hours			15
6 th	BOT-306/306L	Plant Anatomy	Disciplinary	2+1
	BOT-307/307L	Plant Biochemistry-I	Disciplinary	2+1
	BOT-308/308L	Plant Ecology-I	Disciplinary	2+1
	BOT-309/309L	Plant Physiology-I	Disciplinary	2+1
	BOT-310/310L	Environmental Biology	Disciplinary	2+1
	Total Credit Hours			15
7 th	BOT401/401L	Genetics-I	Disciplinary	2+1
	BOT-402/402L	Molecular Biology	Disciplinary	2+1
	BOT-403/403L	Plant Biochemistry-II	Disciplinary	2+1
	BOT-404/404L	Plant Ecology-II	Disciplinary	2+1
	BOT-405/405L	Plant Cell & Tissue Culture	Disciplinary	2+1
	Total Credit Hours			15
8 th	BOT-406/406L	Plant Physiology-II	Disciplinary	2+1
	BOT-407/407L	Genetics-II	Disciplinary	2+1
	BOT-408/408L	Plant Breeding	Disciplinary	2+1
	INT-400	Field Experience/Internship Program	Field Work	3
	CAP-425	Capstone Project	Capstone	3
	Total Credit Hours			15
Total Credit Hours of Program			127	

2.2 Bachelor of Science in Mathematics

Summary of Scheme of Studies

Semester	General Edu		Disciplinary		Interdisciplinary		Field Experience		Capstone Project		Total Courses	Total Cr. Hrs.
	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.	No.	Cr. Hrs.	No.	Cr. Hrs.		
First	4	11	1	4	1	3	-	-	-	-	6	18
Second	3	8	2	7	1	3	-	-	-	-	6	18
Third	3	7	2	7	1	3	-	-	-	-	6	17
Fourth	2	4	4	12	1	3	-	-	-	-	7	19
Fifth	-	-	5	15	-	-	-	-	-	-	5	15
Sixth	-	-	5	15	-	-			-	-	5	15
Seventh	-	-	5	15	-	-			-	-	5	15
Eighth	-	-	3	9	-	-	1*	3	1	3	5	15
Total	12	30	27	84	4	12	1	3	1	3	45	132

*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5th Semester onward. Capstone Project and Internship will be credited and graded in 8th Semester.

Semester-Wise Break Down

Sem	Course Code	Course Title	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN-101	Functional English	Gen Ed	03
	GEN-103	Application of Information and Communication Technologies	Gen Ed	03(2+1)
	GEN-106	Islamic Studies	Gen Ed	02
	GEN-115	Discrete Mathematics-I	Gen Ed	03
	IDP-101	Physics	Interdisciplinary	03
	MATH-101	Calculus-I	Disciplinary	04
	Total Credit Hours			
2 nd	GEN-104	Expository Writing	Gen Ed	03
	GEN-109	Sociology	Gen Ed	02
	GEN-116	Discrete Mathematics-II	Gen Ed	03
	STAT-111	Statistics	Interdisciplinary	03
	MATH-111	Calculus –II	Disciplinary	04
	MATH-112	Elementary Set Theory	Disciplinary	03
	Total Credit Hours			
3 rd	GEN-107	Environmental Science	Gen Ed	03
	GEN-112	Civics and Community Engagement	Gen Ed	02
	GEN-113	Islamic History and Culture	Gen Ed	02
	COMP-201	Computer Programming	Interdisciplinary	03(2+1)
	MATH-201	Calculus-III	Disciplinary	04
	MATH-203	Mechanics-I	Disciplinary	03
	Total Credit Hours			
4 th	GEN-110	Ideology and Constitution of Pakistan	Gen Ed	02
	GEN-111	Entrepreneurship	Gen Ed	02
	COMP-211	Software Packages	Interdisciplinary	03
	MATH-202	Linear Algebra	Disciplinary	03
	MATH-212	Ordinary Differential Equations-I	Disciplinary	03
	MATH-213	Elementary Number Theory	Disciplinary	03
	MATH-214	Mechanics-II	Disciplinary	03
	Total Credit Hours			

5 th	MATH-301	Real Analysis-I	Disciplinary	03
	MATH-302	Topology	Disciplinary	03
	MATH-303	Group Theory	Disciplinary	03
	MATH-304	Complex Analysis	Disciplinary	03
	MATH-305	Ordinary Differential Equations-II	Disciplinary	03
	Total Credit Hours			
6 th	MATH-311	Real Analysis –II	Disciplinary	03
	MATH-312	Rings and Fields	Disciplinary	03
	MATH-313	Differential Geometry	Disciplinary	03
	MATH-314	Classical Mechanics	Disciplinary	03
	MATH-315	Functional Analysis	Disciplinary	03
	Total Credit Hours			
7 th	MATH-401	Measure Theory and Lebesgue Integration	Disciplinary	03
	MATH-402	Numerical Analysis-I	Disciplinary	03
	MATH-403	Partial Differential Equations	Disciplinary	03
	MATH-404	Methods of Mathematical Physics	Disciplinary	03
		Elective Course-I	Disciplinary	03
	Total Credit Hours			
8 th	MATH-405	Numerical Analysis-II	Disciplinary	03
	INT-400	Field Experience	Field Work	03
	CAP-425	Capstone Project	Capstone Project	03
		Elective Course-II	Disciplinary	03
		Elective Course-III	Disciplinary	03
	Total Credit Hours			
Total Credit Hours of the Program				132

List of Elective Courses for 7th (any One) & 8th Semesters (any Two)

Course Codes	Course Title	Cr. Hrs.	Semester
MTH-406	Theory of Modules	3+0	7 th
MTH-407	Theory of Group Action	3+0	7 th
MTH-408	Vectors and Tensors	3+0	7 th
MTH-409	Analytical Dynamics	3+0	7 th

MTH-410	Introduction to Quantum Mechanics	3+0	7 th
MTH-414	Optimization Theory	3+0	7 th
MTH-415	Mathematical Statistics-I	3+0	7 th
MTH-416	Special Theory of Relativity	3+0	7 th
MTH-417	Fluid Mechanics-I	3+0	7 th
MTH-418	Operations Research-I	3+0	7 th
MTH-419	Fortran Programming	3+0	7 th
MTH-420	Advanced Number Theory	3+0	7 th
MTH-421	Special Functions	3+0	7 th
MTH-422	Theory of Splines	3+0	7 th
MTH-423	Algebraic Systems and Coding Theory	3+0	8 th
MTH-424	Advanced Topology	3+0	8 th
MTH-426	Electromagnetism	3+0	8 th
MTH-427	Calculus of Variation	3+0	8 th
MTH-428	Advanced Group Theory	3+0	8 th
MTH-429	Mathematical Modeling	3+0	8 th
MTH-430	Operational Research-II	3+0	8 th
MTH-431	Fluid Mechanics-II	3+0	8 th
MTH-432	Graph Theory	3+0	8 th
MTH-433	Cryptography	3+0	8 th
MTH-434	Mathematical Statistics-II	3+0	8 th
MTH-435	Computer Applications	3+0	8 th
MTH-436	Heat Transfer	3+0	8 th
MTH-437	Riemannian Geometry	3+0	8 th
MTH-438	Integral Equations	3+0	8 th

2.3 Bachelor of Science in Physics

Semester	Summary of Scheme of Studies BS Physics											
	General Edu		Disciplinary		Interdisciplinary		Field Experience		Capstone Project			
	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	Total Courses	Total Cr. Hrs.
First	3	9	2	5	1	3	-	-	-	-	6	17
Second	3	8	2	5	1	3	-	-	-	-	6	16
Third	4	9	3	8	-	-	-	-	-	-	7	17
Fourth	2	4	3	8	2	6	-	-	-	-	7	18
Fifth	-	-	6	17	-	-	-	-	-	-	6	17
Sixth	-	-	6	17	-	-	-	-	-	-	6	17
Seventh	-	-	5	15	-	-			-	-	5	15
Eighth	-	-	4	12	-	-	1*	3	1*	3	6	18
Total	12	30	31	87	4	12	1	3	1	3	49	135

*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5th Semester onward. Capstone Project and Internship will be credited and graded in 8th Semester.

Semester-Wise Breakdown

Sem	Course Code	Course Title	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN-101	Functional English	Gen Ed	3
	GEN-102	Quantitative Reasoning-I	Gen Ed	3
	GEN-103	Application of Information and Communication Technologies	Gen Ed	3 (2+1)
	CAL-101	Calculus-I	Interdisciplinary	3
	PHY-101	Mechanics	Disciplinary	3
	PHY-102(L)	Physics Lab-I (Mechanics)	Disciplinary	2
	Total Credit Hours			
2 nd	GEN-104	Expository Writing	Gen Ed	3
	GEN-105	Quantitative Reasoning-II	Gen Ed	3
	GEN-106	Islamic Studies	Gen Ed	2
	CAL-102	Calculus-II	Interdisciplinary	3
	PHY-111	Wave and Optics	Disciplinary	3
	PHY-1139(L)	Physics Lab-II (Wave and Optics)	Disciplinary	2
	Total Credit Hours			
3 rd	GEN-107	Environmental Science	Gen Ed	3
	GEN-108	Technical Communication	Gen Ed	2
	GEN-109	Sociology	Gen Ed	2
	GEN-110	Ideology and Constitution of Pakistan	Gen Ed	2
	PHY-201	Electricity and Magnetism	Disciplinary	3
	PHY-202	Heat and Thermodynamics	Disciplinary	3
	PHY-203(L)	Physics Lab-III	Disciplinary	2
Total Credit Hours				17
4 th	GEN-111	Entrepreneurship	Gen Ed	2
	GEN-112	Civics and Community Engagement	Gen Ed	2
	ADE-201	Linear Algebra and Differential Equations	Interdisciplinary	3
	MS-211	Probability and Statistics	Interdisciplinary	3
	PHY-211	Modern Physics	Disciplinary	3
	PHY-212	Basic Electronics	Disciplinary	3
	PHY-213(L)	Physics Lab-IV	Disciplinary	2
Total Credit Hours				18

5 th	PHY-301	Classical Mechanics	Disciplinary	3
	PHY-302	Mathematical methods of Physics-I	Disciplinary	3
	PHY-303	Solid State Physics-I	Disciplinary	3
	PHY-304	Electronics-I	Disciplinary	3
	PHY-305	Computational Physics-I	Disciplinary	3
	PHY-306(L)	Physics Lab-V	Disciplinary	2
	Total Credit Hours			
6 th	PHY-311	Mathematical methods of Physics-II	Disciplinary	3
	PHY-312	Solid State Physics-II	Disciplinary	3
	PHY-313	Quantum Mechanics-I	Disciplinary	3
	PHY-314	Computational Physics-II	Disciplinary	3
	PHY-315	Electronics-II	Disciplinary	3
	PHY-316(L)	Physics Lab-VI	Disciplinary	2
	Total Credit Hours			
7 th	PHY-401	Quantum Mechanics-II	Disciplinary	3
	PHY-402	Statistical Physics	Disciplinary	3
	PHY-403	Atomic and Molecular Physics	Disciplinary	3
	PHY-404	Electrodynamics-I	Disciplinary	3
	PHY-405	Nuclear Physics-I	Disciplinary	3
	Total Credit Hours			
8 th	PHY-406	Electrodynamics-II	Disciplinary	3
	PHY-407	Nuclear Physics-II	Disciplinary	3
	INT-400	Field Work /Internship Program	Field Work	3
	CAP-425	Capstone Project	Project	3
		Elective Subject-I	Disciplinary	3
		Elective Subject-II	Disciplinary	3
	Total Credit Hours			
Total Credit Hours of Program				135

List of Elective Subjects

S. No.	Course Code	Course Title	Cluster/Domain	Credit Hrs.
1	PHY-501	Particle Physics	Disciplinary	3
2	PHY-502	Plasma Physics	Disciplinary	3
3	PHY-503	Research techniques and Methodology in Physics	Disciplinary	3
4	PHY-504	Introduction to material Science	Disciplinary	3
5	PHY-505	Experimental techniques in physics	Disciplinary	3
6	PHY-506	Renewable energy resources	Disciplinary	3
7	PHY-507	Environmental Physics	Disciplinary	3
8	PHY-508	Digital Electronics	Disciplinary	3
9	PHY-509	Astrophysics	Disciplinary	3
10	PHY-510	Introduction to Nano science and Technology,	Disciplinary	3
11	PHY-511	Medical Physics	Disciplinary	3
12	PHY-512	Lasers	Disciplinary	3
13	PHY-513	Introduction to quantum computing	Disciplinary	3

3. Faculty of Management Sciences

Semester	3.1 Bachelor of Business Administration										Total Courses Total Cr. Hrs.	
	Summary of Scheme of Studies											
	General Edu		Disciplinary		Interdisciplinary		Field Experience		Capstone Project			
	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	No of Courses	Cr. Hrs.	Total Courses	Total Cr. Hrs.
First	4	11	1	3	1	3	-	-	-	-	6	17
Second	5	13	1	3	-	-	-	-	-	-	6	16
Third	3	6	1	3	2	6	-	-	-	-	6	15
Fourth	-	-	4	12	1	3	-	-	-	-	5	15
Fifth	-	-	5	15	-	-	-	-	-	-	5	15
Sixth	-	-	6	18	-	-	-	-	-	-	6	18
Seventh	-	-	5	15	-	-	-	-	-	-	5	15
Eighth	-	-	4	12	-	-	1*	3	1	3	6	18
Total	12	30	27	81	4	12	1	3	1	3	45	129
*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5 th Semester onward. Capstone Project and Internship will be credited and graded in 8 th Semester.												

Semester-Wise Breakdown

Sem	Course Code	Course Title	Pre- Requisites	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN-101	Functional English	-	Gen Ed	03
	GEN-102	Quantitative Reasoning-1	-	Gen Ed	03
	GEN-103	Application of Information and Communication Technologies	-	Gen Ed	03(2+1)
	GEN-106	Islamic Studies	-	Gen Ed	02
	ID-151	Microeconomics	-	Interdisciplinary	03
	MGT-141	Introduction to Business	-	Disciplinary	03
	Total Credit Hours				
2 nd	GEN-104	Expository Writing	-	Gen Ed	03
	GEN-105	Quantitative Reasoning- II	Quantitative Reasoning-1	Gen Ed	03
	GEN-107	Environmental Science	-	Gen Ed	03
	GEN-109	Sociology	-	Gen Ed	02
	GEN-112	Civics and Community Engagement	-	Gen Ed	02
	MGT-131	Financial Accounting- I	-	Disciplinary	03
	Total Credit Hours				
3 rd	GEN-108	Technical Communication	-	Gen Ed	02
	GEN-110	Ideology and Constitution of Pakistan	-	Gen Ed	02
	GEN-111	Entrepreneurship	Introduction to Business	Gen Ed	02
	ID-252	Macroeconomics	Quantitative Reasoning-2, Statistics for Business	Interdisciplinary	03
	ID-261	Statistics for Business	-	Interdisciplinary	03
	MGT-211	Introduction to Business Finance	Financial Accounting- I	Disciplinary	03
	Total Credit Hours				
4 th	ID-253	Pakistan Economy	Microeconomics & Macroeconomics	Interdisciplinary	03
	MGT-221	Principles of Marketing	-	Disciplinary	03
	MGT-232	Financial Accounting- II	Financial Accounting- I	Disciplinary	03
	MGT-242	Introduction to HRM	-	Disciplinary	03

	MGT -212	Money and Banking	Introduction to Business Finance	Disciplinary	03
	Total Credit Hours				15
5 th	MGT-381	Business Research Methods	-	Disciplinary	03
	MGT-333	Cost Accounting	Financial Accounting- II	Disciplinary	03
	MGT -313	Financial Management	Introduction to Business Finance	Disciplinary	03
	MGT-371	Business Ethics	-	Disciplinary	03
	MGT -343	Fundamental of Supply Chain Management	-	Disciplinary	03
	Total Credit Hours				15
6 th	MGT-344	Management Information System	Application of Information and Communication Technologies	Disciplinary	03
	MGT -322	Marketing Management	Principles of Marketing	Disciplinary	03
	MG T-372	Business Law	-	Disciplinary	03
	MGT-373	Business Psychology	-	Disciplinary	03
	MGT -374	Consumer Behavior	Principles of Marketing	Disciplinary	03
	MGT -345	Business Policy and Strategy	-	Disciplinary	03
	Total Credit Hours				18
7 th	MGT -446	E-Commerce	Marketing Management, Management Information System	Disciplinary	03
	MGT -447	Organizational Behavior	-	Disciplinary	03
	MGT -448	International Business affairs	-	Disciplinary	03
		Specialization-I	-	Disciplinary	03
		Specialization- II	-	Disciplinary	03
	Total Credit Hours				15
8 th	MGT -475	Corporate Governance	-	Disciplinary	03
	MGT -449	Operations Management	-	Disciplinary	03
	INT-400	Field Experience/Internship		Field work	03
	CAP-425	Capstone Project	-	Capstone Project	03
		Specialization- III	-	Disciplinary	03
		Specialization-IV	-	Disciplinary	03
	Total Credit Hours				18
Total Credit Hours of the Program				129	

List of Courses for Specialization					
Course Code	Course Title	Courses offered According to pre-requisites	Course Code	Course Title	Courses offered According to pre-requisites
Finance					
FIN-111	Financial Reporting and Analysis	Specialization-II	FIN - 116	Taxation and Auditing	Specialization-II
FIN - 112	Corporate Finance	Specialization-III	FIN - 117	Managerial Accounting	Specialization-II
FIN - 113	Financial Risk Management	Specialization-IV	FIN - 118	Financial Statement Analysis and Evaluation	Specialization-III
FIN - 114	Investment and Portfolio Management	Specialization-I	FIN - 119	Financial Markets and Institutions	Specialization-IV
FIN - 115	Islamic Banking and Finance	Specialization – I	FIN - 120	Financial Economics	Specialization-I
Human Resource (HR)					
HRM-111	Strategic Human Resource Management	Specialization-I	HRM-116	Training and Development	Specialization-II
HRM-112	Human Resource Development	Specialization-I	HRM-117	Recruitment and Selection	Specialization-II
HRM-113	Organization Development	Specialization-III	HRM-118	Human Resource Management Information System	Specialization-III
HRM-114	Compensation Management	Specialization-IV	HRM-119	Negotiations and Conflict Management	Specialization-IV
HRM-115	Performance Management System	Specialization-I	HRM-120	Change Management	Specialization-II

Marketing					
MKT-111	Sales Management	Specialization-I	MKT-116	New Product Development	Specialization-I
MKT-112	Advertising	Specialization-II	MKT-117	Brand Management	Specialization-II
MKT-113	Marketing Research	Specialization-III	MKT-118	Digital Marketing	Specialization-III
MKT-114	Retail Management	Specialization-III	MKT-119	Global Marketing	Specialization-IV
MKT-115	Social Media Marketing	Specialization-IV	MKT-120	Strategic Marketing	Specialization-IV
Supply Chain Management					
SCM-111	Inventory Management	Specialization-I	SCM-116	Total Quality Management	Specialization-III
SCM-112	Procurement Management	Specialization-I	SCM-117	Green Supply Chain Management	Specialization-IV
SCM-113	Sourcing and Logistics Management	Specialization-II	SCM-118	Strategic Supply Chain Management	Specialization-IV
SCM-114	Distribution Network and Design	Specialization-II	SCM-119	Supply Chain Modeling	Specialization-IV
SCM-115	Enterprise Resource Planning (ERP)	Specialization-III	SCM-120	Demand Planning and Fulfillment	Specialization-II

4. Faculty of Computing

4.1 Bachelor of Science in Computer Science

Semester	Summary of Scheme of Studies												
	General Education		Disciplinary (Major)		Interdisciplinary		Field Experience		Capstone Project				
	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.	No.	Cr. Hrs.	No.	Cr. Hrs.	Total Courses	Total Cr. Hrs.	
First	5	14	1	4	-	-	-	-	-	-	6	18	
Second	2	5	3	11	1	3	-	-	-	-	6	19	
Third	-	-	6	19	-	-	-	-	-	-	6	19	
Fourth	1	2	5	15	-	-	-	-	-	-	6	17	
Fifth	1	3	4	12	1	3			-	-	6	18	
Sixth	-	-	4	12	2	6			-	-	6	18	
Seventh	-	-	3	9	1	3			1	2	5	14	
Eighth	3	6	-	-	-	-	1*	3	1*	4	5	13	
Total	12	30	26	82	5	15	1	3	2	6	46	136	

*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5th Semester onward. Capstone Project and Internship will be credited and graded in 8th Semester.

Semester-Wise Breakdown

Sem	Course Code	Course Title	Pre-Requisites	Cluster/ Domain	Credit Hrs (Theory + Lab)
1 st	GEN-101	Functional English	-	Gen Ed	3 (3+0)
	GEN-103	Application of Information and Communication Technologies	-	Gen Ed	3 (2+1)
	GEN-106	Islamic Studies	-	Gen Ed	2 (2+0)
	GEN-117	Discrete Structures	-	Gen Ed (QR-I)	3 (3+0)
	GEN-118	Calculus & Analytic Geometry	-	Gen Ed (QR-II)	3 (3+0)
	CCC-111	Programming Fundamentals	-	Disciplinary	4 (3+1)
	MTD-111	Pre-Mathematics-I *	-	Math Deficiency	3 (3+0)
Total Credit Hours					18
2 nd	GEN-104	Expository Writing	Functional English	Gen Ed	3 (3+0)
	GEN-110	Ideology and Constitution of Pakistan	-	Gen Ed	2 (2+0)
	MATH-202	Linear Algebra	Calculus & Analytic Geometry	Interdisciplinary	3 (3+0)
	CCC-112	Object Oriented Programming	Programming Fundamentals	Disciplinary	4 (3+1)
	CCC-161	Database Systems	-	Disciplinary	4 (3+1)
	CCC-131	Digital Logic Design	-	Disciplinary	3 (2+1)
	MTD-112	Pre-Mathematics-II *	-	Math Deficiency	3 (3+0)
Total Credit Hours					19
3 rd	CCC-213	Data Structures	Object Oriented Programming	Disciplinary	4 (3+1)
	CCC-221	Information Security	-	Disciplinary	3 (2+1)
	CCC-241	Artificial Intelligence	-	Disciplinary	3 (2+1)
	CCC-222	Computer Networks	-	Disciplinary	3 (2+1)
	CCC-251	Software Engineering	-	Disciplinary	3 (3+0)
	CCC-232	Computer Organization & Assembly Language	Digital Logic Design	Disciplinary	3 (2+1)
Total Credit Hours					19
4 th	GEN-111	Entrepreneurship	-	Gen Ed	2
	CDC-262	Advance Database Management Systems	Database Systems	Disciplinary	3(2+1)
	CDE-271	Web Technologies	-	Disciplinary	3(2+1)
	CDE-214	Mobile Application Development	-	Disciplinary	3(2+1)

	CDE-215	Advanced Programming	Object Oriented Programming	Disciplinary	3(2+1)
	CDE-223	Cyber Security	Information Security	Disciplinary	3(2+1)
	Total Credit Hours				17
5 th	GEN-119	Applied Physics	-	Gen Ed	3 (2+1)
	MS-221	Multivariable Calculus	Calculus & Analytic Geometry	Interdisciplinary	3 (3+0)
	CCC-352	Operating Systems	-	Disciplinary	3 (2+1)
	CDC-353	HCI & Computer Graphics	-	Disciplinary	3 (2+1)
	CDC-333	Computer Architecture	Computer Organization & Assembly Language	Disciplinary	3 (2+1)
	CDC-316	Theory of Automata	-	Disciplinary	3 (3+0)
	Total Credit Hours				18
6 th	MS-211	Probability & Statistics	-	Interdisciplinary	3 (3+0)
	EW-421	Technical & Business Writing	Expository Writing	Interdisciplinary	3 (3+0)
	CDC-317	Compiler Construction	Theory of Automata	Disciplinary	3 (2+1)
	CDC-334	Parallel & Distributed Computing	Operating Systems	Disciplinary	3 (2+1)
	CDE-372	Web Engineering	Web Technologies	Disciplinary	3 (2+1)
	CDE-342	Programming for Artificial Intelligence	Artificial Intelligence	Disciplinary	3 (2+1)
	Total Credit Hours				18
7 th	MGT-221	Principles of Marketing	-	Interdisciplinary	3 (3+0)
	CCC-418	Analysis of Algorithms	Data Structures	Disciplinary	3 (3+0)
	CDE-454	Software Testing & Quality Assurance	-	Disciplinary	3 (2+1)
	CDE-443	Cloud Computing	-	Disciplinary	3 (2+1)
	CCC-491	Final Year Project-I	-	Capstone Project	2 (0+2)
	Total Credit Hours				14
8 th	GEN-120	Professional Practices		Gen Ed	2 (2+0)
	GEN-112	Civics and Community Engagement		Gen Ed	2 (2+0)
	GEN-121	Introduction to Management		Gen Ed	2 (2+0)
	INT-400	Field Experience/Internship		Field Experience	3
	CCC-492	Final Year Project-II	Final Year Project-I	Capstone Project	4 (0+4)
	Total Credit Hours				13
	Total Credit Hours of the Program				136

*Pre-Mathematics-I and Pre-Mathematics-II courses are only for those students who have not studied Mathematics at intermediate level. Students must pass deficiency courses of Mathematics (6 credit hours) in the first year. These deficiency courses of Mathematics are offered in compliance with NCEAC (National Computing Education Accreditation Council) revised curriculum 2023. Summer semester can also be offered (if required) to cover deficiency courses.

4.2 Bachelor of Science in Information Technology

Summary of Scheme of Studies BS Information Technology												
Semester	General Edu		Disciplinary		Interdisciplinary		Field Experience		Capstone Project		Total Courses	Total Cr. Hrs.
	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.	No. of Courses	Cr. Hrs.		
First	5	14	1	4	-	-	-	-	-	-	6	18
Second	2	5	3	11	1	3	-	-	-	-	6	19
Third	-	-	6	19	-	-	-	-	-	-	6	19
Fourth	1	2	5	15	-	-	-	-	-	-	6	17
Fifth	1	3	4	12	1	3	-	-	-	-	6	18
Sixth	1	2	2	6	3	9			-	-	6	17
Seventh	2	4	2	6	-	-			1	2	5	12
Eighth	-	-	2	6			1*	3	1*	4	4	13
Total	12	30	25	79	5	15	1	3	2	6	45	133
*Students will serve a 6 to 8 weeks Internship/Field Experience (preferably in summer break). Students may start working on Capstone Project and Internship from 5 th Semester onward. Capstone Project and Internship will be credited and graded in 8 th Semester.												

Semester-Wise Breakdown

Sem	Course Code	Course Title	Cluster/ Domain	Credit Hours (Theory + Lab)
1 st	GEN-101	Functional English	Gen Ed	03
	GEN-103	Applications of Information and Communication Technologies	Gen Ed	03(2+1)
	GEN-106	Islamic Studies	Gen Ed	02
	GEN-117	Discrete Structure	Gen Ed	03
	GEN-118	Calculus & Analytic Geometry	Gen Ed	03
	CCC-111	Programming Fundamentals	Disciplinary	4(3+1)
	MTD-111	Pre-Mathematics-I*	Math Deficiency	03
2 nd	Total Credit Hours			18
	GEN-104	Expository Writing	Gen Ed	03
	GEN-110	Ideology and Constitution of Pakistan	Gen Ed	02
	MATH-202	Linear Algebra	Interdisciplinary	03
	CCC-112	Object Oriented Programming	Disciplinary	04(3+1)
	CCC-131	Digital Logic Design	Disciplinary	3 (2+1)
	CCC-161	Database Systems	Disciplinary	4 (3+1)
	MTD-112	Pre-Mathematics-II*	Math Deficiency	03
3 rd	Total Credit Hours			19
	CCC-213	Data Structures	Disciplinary	4 (3+1)
	CCC-221	Information Security	Disciplinary	3 (2+1)
	CCC-222	Computer Networks	Disciplinary	3 (2+1)
	CCC-232	Computer Organization & Assembly Language	Disciplinary	3 (2+1)
	CCC-241	Artificial Intelligence	Disciplinary	3 (2+1)
	CCC-251	Software Engineering	Disciplinary	3 (3+0)
	Total Credit Hours			19
4 th	GEN-111	Entrepreneurship	Gen Ed	02
	CDE-214	Mobile Application Development	Disciplinary	03 (2+1)
	CDE-271	Web Technologies	Disciplinary	03(2+1)
	CDE-223	Cyber Security	Disciplinary	03 (2+1)
	CCC-352	Operating Systems	Disciplinary	03 (2+1)

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	DC-322	DB Administration & Management	Disciplinary	03 (2+1)
	Total Credit Hours			17
5 th	GEN-119	Applied Physics	Gen Ed	03(2+1)
	MS-221	Multivariable Calculus	Interdisciplinary	03
	CCC-418	Analysis of Algorithms	Disciplinary	03
	CDC-316	Theory of Automata	Disciplinary	03
	CDC-353	HCI & Computer Graphics	Disciplinary	03(2+1)
	DE-313	Software Requirement Engineering	Disciplinary	03
	Total Credit Hours			18
6 th	GEN-120	Professional Practices	Gen Ed	02
	ES-301	Financial Accounting	Interdisciplinary	03
	EW-421	Technical and Business Writing	Interdisciplinary	03
	MS-211	Probability & Statistics	Interdisciplinary	03
	CDE-342	Parallel & Distributed Computing	Disciplinary	03
	DE-413	Enterprise Systems	Disciplinary	03
	Total Credit Hours			17
7 th	GEN-112	Civics and Community Engagement	Gen Ed	02
	GEN-121	Introduction to Management	Gen Ed	02
	DC-421	System & Network Administration	Disciplinary	03(2+1)
	DC-423	Information Technology Infrastructure	Disciplinary	03
	CCC-491	Final Year Project-I	Capstone Project	02
	Total Credit Hours			12
8 th	CDE-443	Cloud Computing	Disciplinary	03
	DE-411	Software Project Management	Disciplinary	03
	INT-400	Field Experience / Internship	Field Work	03
	CCC-492	Final Year Project-II	Capstone Project	04
	Total Credit Hours			13
Total Credit Hours of the Program			133	

*Pre-Mathematics-I and Pre-Mathematics-II courses are only for those students who have not studied Mathematics at intermediate level. Students must pass deficiency courses of Mathematics (6 credit hours) in the first year. These deficiency courses of Mathematics are offered in compliance with NCEAC (National Computing Education Accreditation Council) revised curriculum 2023. Summer semester can also be offered (if required) to cover deficiency courses.

5. General Education Courses

S. No	Course Code	Course Title	Cluster/Domain	Credit Hours
1.	GEN-101	Functional English	Gen Ed	3
2.	GEN-102	Quantitative Reasoning-I	Gen Ed	3
3.	GEN-103	Application of Information and Communication Technologies	Gen Ed	3 (2+1)
4.	GEN-104	Expository Writing	Gen Ed	3
5.	GEN-105	Quantitative Reasoning-II	Gen Ed	3
6.	GEN-106	Islamic Studies	Gen Ed	2
7.	GEN-107	Environmental Science	Gen Ed	3
8.	GEN-108	Technical Communication	Gen Ed	2
9.	GEN-109	Sociology	Gen Ed	2
10.	GEN-110	Ideology and Constitution of Pakistan	Gen Ed	2
11.	GEN-111	Entrepreneurship	Gen Ed	2
12.	GEN-112	Civics and Community Engagement	Gen Ed	2
13.	GEN-113	Islamic History and Culture	Gen Ed	2
14.	GEN-114	Math	Gen. Ed	3
15.	GEN-115	Discrete Mathematics-I	Gen Ed	3
16.	GEN-116	Discrete Mathematics-II	Gen Ed	3
17.	GEN-117	Discrete Structures	Gen Ed (QR-I)	3
18.	GEN-118	Calculus & Analytic Geometry	Gen Ed (QR-II)	3
19.	GEN-119	Applied Physics	Gen Ed	3
20.	GEN-120	Professional Practices	Gen Ed	2
21.	GEN-121	Introduction to Management	Gen Ed	2
22.	GEN-122	Basics of Statistics	Gen Ed	3

6. Interdisciplinary Courses

S. No	Course Code	Course Title	Cluster	Cr Hours
ECONOMICS				
1.	STAT-101	Statistics-I	Interdisciplinary	3
2.	STAT-102	Statistics-II	Interdisciplinary	3
3.	IDA-111	Introduction to Accounting	Interdisciplinary	3
4.	MGT-141	Introduction to Business	Interdisciplinary	3
ENGLISH				
5.	PSY-101	Introduction to Psychology	Interdisciplinary	3
6.	MCM-112	Mass Communication	Interdisciplinary	3
7.	PHL-211	Philosophy	Interdisciplinary	3
8.	POL-212	Political Science	Interdisciplinary	3
FINE ARTS				
9.	PSY-101	Introduction to Psychology	Interdisciplinary	3
10.	MCM-112	Mass Communication	Interdisciplinary	3
11.	IDP-113	Photography	Interdisciplinary	3
12.	IDH-114	History	Interdisciplinary	3
HEALTH & PHYSICAL EDUCATION				
13.	SOW-101	Social Work	Interdisciplinary	3
14.	HPE-301	Basis of Human Anatomy	Interdisciplinary	3
15.	HPE-311	Human Physiology	Interdisciplinary	3
16.	HPE-401	Biochemistry	Interdisciplinary	3
ISLAMIC STUDIES				
17.	PSY-101	Introduction to Psychology	Interdisciplinary	3
18.	MCM-112	Mass Communication	Interdisciplinary	3
19.	POL-212	Political Science	Interdisciplinary	3
20.	ISL-214	Intellectual History of the Contemporary Muslim World	Interdisciplinary	3
POLITICAL SCIENCE				
21.	PSY-101	Introduction to Psychology	Interdisciplinary	3
22.	MCM-112	Mass Communication	Interdisciplinary	3
23.	PHL-211	Philosophy	Interdisciplinary	3
24.	IDH-212	Introduction to History	Interdisciplinary	3

PSYCHOLOGY				
25.	SOW-101	Social Work	Interdisciplinary	3
26.	MCM-112	Mass Communication	Interdisciplinary	3
27.	SPS-211	Introduction to Statistics	Interdisciplinary	3
28.	SPS-212	Data Analysis and SPSS	Interdisciplinary	3
SPECIAL EDUCATION				
29.	PSY-101	Introduction to Psychology	Interdisciplinary	3
30.	NHP-103	Nutrition, Health and Prevention	Interdisciplinary	3
31.	SPS-211	Introduction to Statistics	Interdisciplinary	3
32.	PSY-212	Positive Psychology	Interdisciplinary	3
URDU				
33.	PSY-101	Introduction to Psychology	Interdisciplinary	3
34.	WC- 201	عالمی کلاسیک کے تراجم	Interdisciplinary	3
35.	PKL-301	پاکستانی زبانوں کا ادب	Interdisciplinary	3
36.	PPH-401	پاکستان (سیاسی تاریخ)	Interdisciplinary	3
BOTANY				
37.	ID ZOOL 101/101L	Animal Form and Function -I	Interdisciplinary	3
38.	ID ZOOL- 102/102L	Animal Form and Function -II	Interdisciplinary	3
39.	ID CHEM- 201/201L	Inorganic Chemistry	Interdisciplinary	3
40.	ID CHEM- 202/202L	Organic Chemistry	Interdisciplinary	3
MATHEMATICS				
41.	IDP-101	Physics	Interdisciplinary	3
42.	STAT-111	Statistics	Interdisciplinary	3
43.	COMP-201	Computer Programming	Interdisciplinary	3
44.	COMP-211	Software Packages	Interdisciplinary	3
PHYSICS				
45.	CAL-101	Calculus-I	Interdisciplinary	3
46.	CAL-102	Calculus-II	Interdisciplinary	3
47.	ADE-201	Linear Algebra and Differential Equations	Interdisciplinary	3
48.	MS-211	Probability and Statistics	Interdisciplinary	3
BUSINESS ADMINISTRATION				

49.	ID-151	Microeconomics	Interdisciplinary	3
50.	ID-261	Statistics for Business	Interdisciplinary	3
51.	ID-252	Macroeconomics	Interdisciplinary	3
52.	ID-253	Pakistan Economy	Interdisciplinary	3
COMPUTER SCIENCE				
53.	MATH-202	Linear Algebra	Interdisciplinary	3
54.	MS-221	Multivariable Calculus	Interdisciplinary	3
55.	MS-211	Probability & Statistics	Interdisciplinary	3
56.	EW-421	Technical & Business Writing	Interdisciplinary	3
57.	MGT-221	Principles of Marketing	Interdisciplinary	3
INFORMATION TECHNOLOGY				
58.	MS-211	Probability and Statistics	Interdisciplinary	3
59.	MS-221	Multivariable Calculus	Interdisciplinary	3
60.	ES-301	Financial Accounting	Interdisciplinary	3
61.	MATH-202	Linear Algebra	Interdisciplinary	3
62.	EW-421	Technical and Business Writing	Interdisciplinary	3

7. Credit Hours and Contact Hours

Courses are described through the system of Credit Hours (Cr. Hrs.).

- One (01) Credit Hour of Theory is equivalent to One (01) contact hour per week i.e. One Hour Class per Week. In the semester of 16 weeks of teaching, 3 Credit Hours of Theory Course means (3x16) 48 contact hours in the semester.
- In the semester of 16 weeks of teaching, One (01) Credit Hour of Lab is equivalent to 3 contact hours per week for 16 weeks i.e. $3 \times 16 = 48$ contact hours in the semester.