

COURSES DETAILS - FALL 2023
BS Mathematics Batch 14 (2023) From 11-09-2023 to 12-01-2024
Semester – I Section A

S.#	Courses	CHs	Instructor
1	PHY-102 Applied Physics	2-1	Dr. Faisal Munir
2	HU-101 Islamic Studies	2-0	Dr. Ayesha Jadoon (S3H)
3	CS-114 Fundamentals of Programming	2-1	Shared Faculty/TVF
4	HU-110 English-I	3-0	Dr. Muhammad Ilyas Chishti
5	MATH-111 Calculus-I	3-0	Dr. Meraj Mustafa Hashmi
6	QR-100 Quantitative Reasoning-I	3-0	Dr. Muhammad Asif Farooq

BS Mathematics Semester – III (Batch-13, 2022)
11-09-2023 to 12-01-2024

S.#	Courses	CHs	Instructor
1	ECO-101 Principles of Microeconomics	3-0	
2	HU-210 Technical Writing	3-0	Shared Faculty/TVF
3	MATH-213 Calculus-III	3-0	Dr. Tooba Feroze
4	MATH-263 Probability Theory	3-0	Dr. Shakeel Ahmad
5	MATH-272 Discrete Mathematics and Applications	3-0	Dr. Mubasher Jamil
6	MATH-274 Elementary Number Theory	3-0	Dr. Hafiz Muhammad Fahad

BS Mathematics Semester – V (Batch-12, 2021)
11-09-2023 to 12-01-2024

S.#	Courses	CHs	Instructor
1	CS-250 Data Structures & Algorithms	3-1	Shared Faculty/TVF
2	HU-222 Professional Ethics	2-0	Shared Faculty/TVF
3	MATH-251 Ordinary Differential Equations-I	3-0	Dr. Rizwan ul Haq
4	MATH-342 Real Analysis-II	3-0	Dr. Matloob Anwar
5	MATH-343 Complex Analysis	3-0	Dr. Tooba Feroze
6	MATH-345 Topology-I	3-0	TVF (Ch. Afaq Aslam)

BS Mathematics Semester – VII (Batch-11, 2020)
11-09-2023 to 12-01-2024

S.#	Courses	CHs	Instructor
1	CSL-402 Community Services Learning Course	1-0	Dr. Muhammad Ilyas Chishti
2	MATH-423 Rings and Fields	3-0	Mr. Ihtisham Ul Haq (TVF)
3	MATH-452 Ordinary Differential Equations-II	3-0	Dr. Mubasher Jamil
	MATH-491 Fluid Mechanics	3-0	Dr. Muhammad Asif Farooq

Elective Courses

Elective Courses (Data Science)

1	DS-401 Introduction to Data Science	2+1	Shared Faculty
2	DS-402 Machine Learning for Data Analysis	3+1	Dr. Tahir Mehmood

Mathematics Stream

1	MATH-498 FYP-I	0+3	
	MATH-432 Numerical Analysis-II	3+0	Dr. Hafiz Muhammad Fahad

BS Physics Batch 10 (2023) From 11-09-2023 to 12-01-2024

Semester – I Section B

S.#	Courses	CHs	Instructor
1	HU-110 English-I	3+0	Ms. Shumaila Fatima (TVF)
2	CH-101 Applied Chemistry	2+1	Dr. Azhar Mahmood (HoD Chem)
3	PHY-106 Mechanics	3+1	Dr. Saadi Ishaq
4	MATH-101 Calculus & Analytical Geometry	3+0	Dr. Ahmed Javid (Maths Dept)
5	HU-101 Islamic Studies	2+0	Dr. Ayesha Jadoon (S3H)
6	MCF-262 Introduction to Photography	3+0	TVF/Shared Fac

Semester – III (Batch-9, 2022)

11-09-2023 to 12-01-2024

S.#	Courses	CHs	Instructor
1	HU-210 Technical Writing	3+0	TVF/Shared Fac
2	HU-223 Professional Ethics	2+0	TVF/Shared Fac
3	PHY-212 Mathematical Methods of Physicists-I	3+0	Dr. Tajammal Hussain
4	PHY-261 Astronomy	2+1	Brig(R). Mubashir Ul Haq Abbasi
5	PHY-202 Waves & Oscillations	3+0	Dr. Aeysha Khalique
6	MATH-243 Vector Calculus	3+0	TVF/Shared Fac

Semester – V (Batch-8, 2021)

11-09-2023 to 12-01-2024

S.#	Courses	CHs	Instructor
1	PHY-301 Electrodynamics II	3+0	Dr. Faheem Amin
2	PHY-302 Quantum Mechanics-I	3+0	Dr. Fahad Azad
3	PHY-303 Statistical Mechanics-I	3+0	Dr. Aeysha Khalique
4	PHY-312 Mathematical Methods for Physicists-II	3+0	Dr. Muhammad Ali Paracha
5	PHY-391 Lab I	0+2	Dr. Saadi Ishaq

Elective Courses

S.#	Courses	CHs	Instructor
Nanotechnology / Experimental Physics			
1	PHY-483 Material Science	3+0	Dr. Syed Rizwan Hussain
OR			
Physics Main Stream			
1	MATH-274 Elementary Number Theory (MATH)	3+0	Dr. Hafiz Muhammad Fahad

Semester – VII (Batch-7, 2020)

11-09-2023 to 12-01-2024

S.#	Courses	CHs	Instructor
1	PHY-422 Condensed Matter II	3+0	Dr. Muhammad Nauman
2	ECO-101 Principles of Microeconomics	3+0	
3	PHY-261 Astronomy	2+1	Brig(R). Mubashir Ul Haq Abbasi (241280)
4	PHY-471 Atomic, Molecular & Nuclear Physics	3+0	Dr. Saadi Ishaq
5	CSL-402 Community Service Learning	1+0	
6	PHY-498 FYP-I	3+0	

Elective Courses

S.#	Courses	CHs	Instructor
Physics Main Stream			
1	PHY-462 General Relativity	3+0	Mr. Noraiz (TVF)
Nanotechnology / Experimental Physics			
1	MSE-343 Composite Materials	3+0	Dr. Muhammad Siyar (SCME)
Mathematical Physics			
1	MATH-491 Fluid Mechanics (MATH)	3+0	Dr. Muhammad Asif Farooq
OR			
2	PHY-462 General Relativity	3+0	Mr. Noraiz (TVF)

BS Chemistry From 11-09-2023 to 12-01-2024**Semester – I (Batch-6, 2023)****Section A**

S.#	Courses	CHs	Instructor
1	CH-150 Fundamentals of Inorganic Chemistry	3+1	Dr. Syed Shoaib Ahmad
2	CH-270 Fundamentals of Organic Chemistry	3+1	Shared Faculty/TVF
3	CS-110 Fundamentals of Computer Programming	3+1	Shared Faculty/TVF
4	HU-110 English-I	3+0	Dr. Muhammad Ilyas Chishti
5	HU-101 Islamic Studies	2+0	Dr. Ayesha Jadoon (S3H)

Semester – I (Batch-6, 2023)**Section B**

S.#	Courses	CHs	Instructor
1	CH-150 Fundamentals of Inorganic Chemistry	3+1	Dr. Syed Shoaib Ahmad
2	CH-270 Fundamentals of Organic Chemistry	3+1	Shared Faculty/TVF
3	CS-110 Fundamentals of Computer Programming	3+1	Shared Faculty/TVF
4	HU-110 English-I	3+0	Ms. Shumaila Fatima (TVF)
5	HU-101 Islamic Studies	2+0	Dr. Ayesha Jadoon (S3H)

BS Chemistry**Semester – III (Batch-5, 2022)****11-09-2023 to 12-01-2024**

S.#	Courses	CHs	Instructor
1	CH-280 Fundamental of Physical Chemistry	3+1	Dr. Asad Mumtaz
2	PHY-107 Electricity and Magnetism	3+1	Dr. Tajammal Hussain
3	CH-250 Inorganic Chemistry-I	3+1	
4	MATH-224 Mathematics for Chemists-II	3+0	
5	HU-210 Technical Writing	3+0	

BS Chemistry**Semester – V (Batch-4, 2021)****11-09-2023 to 12-01-2024**

S.#	Courses	CHs	Instructor
1	CH-380 Physical Chemistry-I	3+1	Dr. Khadija Munawar
2	CH-332 Chemistry of Environment	3+0	Dr. Azhar Mahmood
3	CH-311 Analytical Chemistry-II	3+1	Dr Musamir Khan
4	CH-370 Organic Chemistry-I	3+1	Dr Muhammad Arfan
5	CHE-201 Advanced Chemical Process Principles	3+0	Mr. Jawad Gul (SCME)

BS Chemistry**Semester – VII (Batch-3, 2020)****11-09-2023 to 12-01-2024**

S.#	Courses	CHs	Instructor
1	CH-498 Final Year Project-I	0+3	
2	CSL-402 Community Service Learning	1+0	

Elective Courses**Organic Chemistry Stream**

S.#	Courses	CHs	Instructor
1	Elective-I: CH-470 Heterocyclic and Organometallic Compounds	3+0	Dr. Habib Nasir
2	Elective-II: CH-472 Organic Spectroscopy-I	3+0	Dr. Muhammad Arfan
3	Elective-III: CH-421 Organic Synthesis-I	3+0	Dr Mudassir Iqbal
4	Elective-IV* CH-454 / 484		

Inorganic/Analytical Chemistry Stream

S.#	Courses	CHs	Instructor
1	Elective-I: CH-455 Coordination Chemistry	3+0	
2	Elective-II: CH-453 Inorganic Polymers	3+0	Dr. Muhammad Adil Mansoor
3	Elective-III: CH-454 Group Theory in Chemistry	3+0	Dr. Manzar Sohail
4	Elective-IV* CH-472 / 484		

Physical Chemistry Stream

S.#	Courses	CHs	Instructor
1	Elective-I: CH-481 Quantum Chemistry	3+0	Dr. Asad Mumtaz
2	Elective-II: CH-482 Radiation and Photochemistry	3+0	Dr Musamir Khan
3	Elective-III: CH-484 Advanced Chemical Kinetics	3+0	Dr. Khadija Munawar
4	Elective-IV* CH-472 / 454		

* Electives-I, II & III will be offered from relevant major specialization of Chemistry while Elective-IV can be opted from other chemistry specializations as per given options.