

COURSES DETAILS - FALL 2024
BS Mathematics Batch 15 (2024) From 09-09-2024 to 12-01-2025
Semester – I Section A

S.#	Courses	CHs	Instructor
1	PHY-102 Applied Physics	2-1	Dr. Attia Batool
2	CS-114 Fundamentals of Programming	2+1	Mr. Muneeb Ahmed (TVF)
3	HU-108 Communication and Interpersonal Skills	3-0	Dr. Muhammad Ilyas Chishti
4	MATH-111 Calculus-I	3-0	Dr. Muhammad Asif Farooq
5	QR-100 Quantitative Reasoning-I	3-0	Dr. Bakhtawar Shoukat (TVF)

BS Mathematics Semester – III (Batch-14, 2023)
09-09-2024 to 12-01-2025

S.#	Courses	CHs	Instructor
1	HU-127 Ideology and Constitution of Pakistan	2+0	Ms. Gul-I- Ayesha Bhatti (S3H)
2	MATH-222 Linear Algebra	3-0	Dr. Matloob Anwar
3	MATH-213 Calculus-III	3-0	Dr. Muhammad Asif Farooq
4	MATH-263 Probability Theory	3-0	Dr. Tahir Mahmood
5	MATH-272 Discrete Mathematics and Applications	3-0	Dr. Mubasher Jamil
6	MATH-235 Mathematical Computing	2+1	Dr. Ahmad Javid

BS Mathematics Semester – V (Batch-13, 2022)
09-09-2024 to 12-01-2025

S.#	Courses	CHs	Instructor
1	CS-250 Data Structures & Algorithms	3-1	Ms. Mehreen Tahir (TVF)
2	HU-222 Professional Ethics	2-0	Engr. Muhammad Anwar (SCEE)
3	MATH-251 Ordinary Differential Equations-I	3-0	Dr. Meraj Mustafa Hashmi
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	Dr. Muhammad Ishaq

BS Mathematics Semester – VII (Batch-12, 2021)
09-09-2024 to 12-01-2025

S.#	Courses	CHs	Instructor
1	CSL-402 Community Services Learning Course	0+1	Dr. Imran Haider Sajid (TVF)
2	MATH-423 Rings and Fields	3-0	Dr. Hafiz Muhammad Fahad
3	MATH-452 Ordinary Differential Equations-II	3-0	Dr. Rizwan Ul Haq
4	MATH-491 Fluid Mechanics	3-0	Dr. Meraj Mustafa Hashmi

Elective Courses
Elective Courses (Data Science)

1	DS-401 Introduction to Data Science	2+1	Dr. Firdos Khan
2	DS-402 Machine Learning for Data Analysis	3+1	Dr. Tahir Mahmood

Mathematics Stream

1	MATH-498 FYP-I	0+3	
2	MATH-480 Tensor Calculus	3+0	Dr. Mubasher Jamil

BS Physics Batch 11 (2024) From 09-09-2024 to 12-01-2025

Semester – I

S.#	Courses	CHs	Instructor
1	HU-110 English-I	3+0	Ms. Zareen Samar
2	CH-101 Applied Chemistry	2+1	Ms. Hira Karim
3	PHY-106 Mechanics	3+1	Dr. Tajammal Hussain
4	MATH-101 Calculus & Analytical Geometry	3+0	Dr. Aamir Shafique
5	HU-101 Islamic Studies	2+0	Dr. Ayesha Jadoon (S3H)
6	MCF-262 Introduction to Photography	3+0	Mr. Qaisar Mubarak (TVF)

Semester – III (Batch-10, 2023)

09-09-2024 to 12-01-2025

S.#	Courses	CHs	Instructor
1	HU-127 Ideology and Constitution of Pakistan	2+0	Ms. Gul-I- Ayesha Bhatti (S3H)
2	MATH-243 Vector Calculus	3+0	Ms. Nimra Sher Asghar (TVF) PhD Student
3	PHY-212 Mathematical Methods of Physics I	3+0	Dr. Saadi Ishaq
4	PHY-261 Astronomy	2+1	Dr. Noraiz Tahir
5	PHY-202 Waves & Oscillations	3+0	Dr. Tajammal Hussain
6	MATH-263 Probability Theory	3+0	Dr. Shahid Iqbal

Semester – V (Batch-9, 2022)

09-09-2024 to 12-01-2025

S.#	Courses	CHs	Instructor
1	PHY-204 Electrodynamics I	3+0	Dr. Fahad Azad
2	PHY-302 Quantum Mechanics-I	3+0	Dr. Shahid Iqbal
3	MATH-361 Probability & Statistics	3+0	Ms. Ms. Rijah Khan TVF
4	PHY-362 Thermodynamics	3+0	Dr. Attia Batool
5	PHY-391 Lab-I	0+2	Dr. Imran Haider Sajid (TVF)
6	CSL-402 Community Services Learning	0+1	Dr. Imran Haider Sajid (TVF)

Elective Courses

S.#	Courses	CHs	Instructor
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Nanotechnology / Experimental Physics

1	PHY-481 Introduction to Nanomaterials	3+0	Dr. Faheem Amin
OR			
Theoretical Physics			
1	PHY-411 Group Theory	3+0	Dr. Ali Paracha
OR			
	DS-401 Introduction to Data Science	2+1	Dr. Firdos Khan

OR

Mathematics Stream

1 MATH-345 Topology-I

3+0

Dr. Muhammad Ishaq

Semester – VII (Batch-8, 2021)
09-09-2024 to 12-01-2025

S.#	Courses	CHs	Instructor
1	PHY-422 Condensed Matter II	3+0	Dr. Faheem Amin
2	PHY-261 Astronomy	2+1	Dr. Noraiz Tahir
3	PHY-471 Atomic, Molecular & Nuclear Physics	3+0	Dr. Faisal Munir
4	HU-208 International Relations (Elective)	3+0	Dr. Umm-e-Habiba (SCEE)
5	CSL-402 Community Service Learning	1+0	Dr. Imran Haider Sajid (TVF)
6	PHY-498 FYP-I	3+0	

Elective Courses

S.#	Courses	CHs	Instructor
Physics Main Stream			
1	PHY-441 Particle Physics I	3+0	Dr. Faisal Munir
Nanotechnology / Experimental Physics			
1	PHY-481 Introduction to Nanomaterials	3+0	Dr. Faheem Amin
Mathematical Physics			
1	MATH-491 Fluid Mechanics (MATH)	3+0	Dr. Meraj Mustafa Hashmi

BS Chemistry From 09-09-2024 to 12-01-2025**Semester – I (Batch-7, 2024)****Section A**

S.#	Courses	CHs	Instructor
1	CH-150 Fundamentals of Inorganic Chemistry	3+1	Dr. Shoaib Ahmad Shah
2	CH-270 Fundamentals of Organic Chemistry	3+1	Dr. Aiman Sadaf
3	CS-110 Fundamentals of Computer Programming	3+1	Mr. Atif Rehman (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-7, 2024)**09-09-2024 to 12-01-2025****Section B**

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

BS Chemistry**Semester – III (Batch-6, 2023)****09-09-2024 to 12-01-2025****Section A**

S.#	Courses	CHs	Instructor
1	QR-100 Quantitative Reasoning-I	3+0	Mr. Haseeb ur Rehman (PhD Student)
2	HU-127 Ideology and Constitution of Pakistan	2+0	Ms. Gul-I- Ayesha Bhatti (S3H)
3	CH-280 Fundamental of Physical Chemistry	3+1	Dr. Rotaba Ansir (TVF)
4	CH-250 Inorganic Chemistry-I	3+1	Dr. Inayat Ali Khan
5	CH-332 Chemistry of Environment	3+0	Dr. Azhar Mehmood

BS Chemistry**Semester – III (Batch-6, 2023)****09-09-2024 to 12-01-2025****Section B**

S.#	Courses	CHs	Instructor
1	QR-100 Quantitative Reasoning-I	3+0	Mr. Imtiaz Waheed (PhD Student)
2	HU-127 Ideology and Constitution of Pakistan	2+0	Ms. Gul-I- Ayesha Bhatti (S3H)
3	CH-280 Fundamental of Physical Chemistry	3+1	Dr. Rotaba Ansir (TVF)
4	CH-250 Inorganic Chemistry-I	3+1	Dr. Inayat Ali Khan
5	CH-332 Chemistry of Environment	3+0	Dr. Azhar Mehmood

BS Chemistry**Semester – V (Batch-5, 2022)****09-09-2024 to 12-01-2025**

S.#	Courses	CHs	Instructor
1	CH-380 Physical Chemistry-I	3+1	Dr. Kashif Majeed
2	CH-332 Chemistry of Environment	3+0	Dr. Muhammad Arfan
3	CH-311 Analytical Chemistry-II	3+1	Dr. Habib Nasir
4	CH-370 Organic Chemistry-I	3+1	Dr. Mudassir Iqbal
5	CHE-201 Advanced Chemical Process Principles	3+0	Mr. Jawad Gul (TVF)

BS Chemistry

Semester – VII (Batch-4, 2021)

09-09-2024 to 12-01-2025

S.#	Courses	CHs	Instructor
1	CH-498 Final Year Project-I	0+3	
2	CSL-402 Community Service Learning	0+1	Dr. Imran Haider Sajid (TVF)

Elective Courses

Organic Chemistry Stream

S.#	Courses	CHs	Instructor
1	Elective-III: CH-421 Organic Synthesis-I	3+0	Dr. Mudassir Iqbal (Elective)
2	Elective-IV* CH-454 / 484		

Inorganic/Analytical Chemistry Stream

S.#	Courses	CHs	Instructor
1	Elective-I: CH-455 Coordination Chemistry	3+0	Dr. Masooma Abbas (TVF)
2	Elective-II: CH-453 Inorganic Polymers	3+0	Dr. Ghulam Hussain
3	Elective-III: CH-454 Group Theory in Chemistry	3+0	Dr. Manzar Sohail (Elective)
4	Elective-IV* CH-421 / 484		

Physical Chemistry Stream

S.#	Courses	CHs	Instructor
1	Elective-I: CH-481 Quantum Chemistry	3+0	Dr. Ghulam Hussain
2	Elective-II: CH-482 Radiation and Photochemistry	3+0	Dr. Kashif Majeed
3	Elective-III: CH-484 Advanced Chemical Kinetics	3+0	Dr. Khadija Munawar (Elective)
4	Elective-IV* CH-421 / 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.