

AMITY SCHOOL OF APPLIED SCIENCES

FLEXILEARN

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PROGRAMME STRUCTURES

2018

AMITY UNIVERSITY HARYANA

GURGAON

B.Sc. (Honors) Chemistry (Total Credits-150)

Programme Structure-2018

FIRST SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
CHY2101	Inorganic Chemistry-I	2	1	-	3
CHY2102	Organic Chemistry-I	2	1	-	3
CHY2106	Physics-I	2	-	-	2
CHY2105	Applied Mathematics-I	2	-	-	2
CHY2103	Inorganic Chemistry Lab-I	-	-	2	1
CHY2104	Organic Chemistry Lab-I	-	-	2	1
CHY2107	Physics Lab-I	-	-	2	1
Open Electives					7*+3
LAN2151	Foreign Language-I*	3	-	-	3
LAN2152	French-I				
LAN2153	German-I				
LAN2154	Spanish-I				
LAN2155	Russian-I				
LAN2156	Chinese-I				
LAN2157	Portuguese-I				
LAN2158	Korean-I				
LAN2159	Japanese-I				
LAN2159	Hindi-I **				
CSS2151	Effective Listening *	1	-	-	1
BEH2151	Understanding Self for Effectiveness*	1	-	-	1
ENV2151	Environmental Studies-I*	2	-	-	2
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				23

** Hindi as Foreign Language for Foreign National Students

SECOND SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
CHY2201	Physical Chemistry-I	2	1	-	3
CHY2202	Analytical Chemistry	2	1	-	3
CHY2206	Physics-II	2	-	-	2
CHY2205	Applied Mathematics-II	2	-	-	2
CHY2203	Physical Chemistry Lab-I	-	-	2	1

CHY2204	Analytical Chemistry Lab	-	-	2	1
CHY2207	Physics Lab-II	-	-	2	1
Open Electives					7*+3
LAN2251	Foreign Language-II*	3	-	-	3
LAN2252	French-II				
LAN2253	German-II				
LAN2254	Spanish-II				
LAN2255	Russian-II				
LAN2256	Chinese-II				
LAN2257	Portuguese-II				
LAN2258	Korean-II				
LAN2259	Japanese-II				
LAN2259	Hindi-II				
CSS2251	Presentation Skills *	1	-	-	1
BEH2251	Problem Solving and Creative Thinking*	1	-	-	1
ENV2251	Environmental Studies-II*	2	-	-	2
	Minor Track Course (Flexi)	-	-	-	3
TOTAL					23

THIRD SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
CHY2301	Inorganic Chemistry-II	2	1	-	3
CHY2302	Organic Chemistry-II	2	1	-	3
CHY2303	Physical Chemistry-II	2	1	-	3
CHY2304	Biochemistry	2	1	-	3
CHY2305	Inorganic Chemistry Lab-II	-	-	2	1
CHY2306	Organic Chemistry Lab-II	-	-	2	1
CHY2307	Physical Chemistry Lab-II	-	-	2	1
Concentration Electives					3
CHY2308	Industrial Chemistry	2	1	-	3
CHY2309	Bioinorganic Chemistry	2	1	-	3
Open Electives					4*+3
LAN2351	Foreign Language-III*	2	-	-	2
LAN2352	French-III				
LAN2353	German-III				
LAN2354	Spanish-III				
LAN2355	Russian-III				
LAN2356	Chinese-III				
LAN2357	Portuguese-III				
LAN2358	Korean-III				
LAN2359	Japanese-III				
LAN2359	Hindi-III				

CSS2351	Reading & Comprehension *	1	-	-	1
BEH2351	Group Dynamics and Team Building*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				25

FOURTH SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
CHY2401	Inorganic Chemistry-III	2	1	-	3
CHY2402	Organic Chemistry-III	2	1	-	3
CHY2403	Physical Chemistry-III	2	1	-	3
CHY2404	Polymer Chemistry	2	1	-	3
CHY2405	Inorganic Chemistry Lab-III	-	-	2	1
CHY2406	Organic Chemistry Lab-III	-	-	2	1
CHY2407	Physical Chemistry Lab-III	-	-	2	1
Concentration Electives					3
CHY2408	Green Chemistry	2	1	-	3
CHY2409	Agricultural Chemistry	2	1	-	3
CHY2431	Term Paper	-	-	-	2
CHY2432	Project (with Presentation & Evaluation)	-	-	-	3
CHY2433	Workshop / Certification (Discipline Specific) (1credit per workshop)	-	-	-	1
CHY2434	Study Abroad	-	-	-	3
Open Electives					4*+3
LAN2451	Foreign Language-IV*	2	-	-	2
LAN2452	French-IV				
LAN2453	German-IV				
LAN2454	Spanish-IV				
LAN2455	Russian-IV				
LAN2456	Chinese-IV				
LAN2457	Portuguese-IV				
LAN2458	Korean-IV				
LAN2459	Hindi-IV				
CSS2451	Corporate Communication *	1	-	-	1
BEH2451	Stress and Coping Strategies*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				25

SUMMER PROJECT

FIFTH SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
CHY2501	Inorganic Chemistry-IV	2	1	-	3
CHY2502	Organic Chemistry-IV	2	1	-	3
CHY2503	Physical Chemistry-IV	2	1	-	3
CHY2504	Inorganic Chemistry Lab-IV	-	-	2	1
CHY2505	Organic Chemistry Lab-IV	-	-	2	1
CHY2506	Physical Chemistry Lab-IV	-	-	2	1
CHY2535	Summer Project Evaluation	-	-	-	6
Concentration Electives					3
CHY2507	Food & Nutrition Chemistry	2	1	-	3
CHY2508	Quantum Chemistry	2	1	-	3
CHY2509	Technical Writing in Science-I	2	-	-	2
CHY2531	Term Paper	-	-	-	2
CHY2533	Workshop / Certification (Discipline Specific) (1credit per workshop)	-	-	-	1
CHY2534	Study Abroad	-	-	-	3
Open Electives					4*+3
LAN2551	Foreign Language-V*	2	-	-	2
LAN2552	French-V				
LAN2553	German-V				
LAN2554	Spanish-V				
LAN2555	Russian-V				
LAN2556	Chinese-V				
LAN2557	Portuguese-V				
LAN2558	Korean-V				
LAN2559	Japanese-V				
CSS2551	Employability Skills *	1	-	-	1
BEH2551	Individual ,Society and Nations*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
TOTAL					28

SIXTH SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
CHY2601	Inorganic Chemistry-V	2	1	-	3
CHY2602	Organic Chemistry-V	2	1	-	3
CHY2603	Physical Chemistry-V	2	1	-	3
CHY2604	Spectroscopy	2	1	-	3

CHY2605	Basics of Computer Programming in C and its Application in Chemistry	2	-	-	2
CHY2606	Inorganic Chemistry Lab-V	-	-	2	1
CHY2607	Organic Chemistry Lab-V	-	-	2	1
CHY2608	Physical Chemistry Lab-V	-	-	2	1
CHY2609	Programming in C Lab	-	-	2	1
Concentration Electives					3
CHY2610	Material Chemistry	2	1	-	3
CHY2611	Nanochemistry	2	1	-	3
CHY2612	Technical Writing in Science-II	2	-	-	2
CHY2631	Term Paper	-	-	-	2
CHY2632	Project (with Presentation & Evaluation)	-	-	-	3
CHY2633	Workshop / Certification (Discipline Specific) (1credit per workshop)	-	-	-	1
Open Electives					2*+3
CSS2651	Workplace Communication *	1	-	-	1
BEH2651	Interpersonal Communication and Relationship Management*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				26

B.Sc. (Honors) Mathematics (Total Credits-150)

Programme Structure-2018

FIRST SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
MTH2101	Differential Calculus	3	1	-	4
MTH2107	Classical Algebra	3	1	-	4
MTH2108	Integral Calculus	3	1	-	4
MTH2109	Statistics	3	1	-	4
Open Electives					7*+3
LAN2151	Foreign Language-I*	3	-	-	3
LAN2152	French-I				
LAN2153	German-I				
LAN2154	Spanish-I				
LAN2155	Russian-I				
LAN2156	Chinese-I				
LAN2157	Portuguese-I				
LAN2158	Korean-I				
LAN2159	Japanese-I				
LAN2159	Hindi-I **				
CSS2151	Effective Listening*	1	-	-	1
BEH2151	Understanding Self for Effectiveness*	1	-	-	1
ENV2151	Environmental Studies* -I	2	-	-	2
	Minor Track Course (Flexi)	-	-	-	3
TOTAL					26

** Hindi as Foreign Language for Foreign National Students

SECOND SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
MTH2205	Ordinary Differential Equations	3	1	-	4
MTH2209	Groups & Ring Theory	3	1	-	4
MTH2210	Real Analysis-I	3	1	-	4
MTH2212	Vector Calculus	3	1	-	4
Open Electives					7*+3

LAN2251	Foreign Language – II*	3	-	-	3
LAN2252	French- II				
LAN2253	German-II				
LAN2254	Spanish-II				
LAN2255	Russian-II				
LAN2256	Chinese-II				
LAN2257	Portuguese-II				
LAN2258	Korean-II				
LAN2259	Japanese-II				
LAN2259	Hindi-II				
CSS2251	Presentation Skills *	1	-	-	1
BEH2251	Problem Solving and Creative Thinking*	1	-	-	1
ENV2251	Environmental Studies*-II	2	-	-	2
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				26

SUMMER INTERNSHIP

THIRD SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
MTH2303	Partial Differential Equations	3	1	-	4
MTH2315	Real Analysis-II	3	1	-	4
MTH2318	Introduction to C Programming	3	-	-	3
MTH2319	C Programming Lab	-	-	2	1
MTH2320	Analytic Geometry	3	1	-	4
MTH2335	Summer Internship Evaluation-I	-	-	-	3
Open Electives					4*+3
LAN2351	Foreign Language-III*	2	-	-	2
LAN2352	French-III				
LAN2353	German-III				
LAN2354	Spanish-III				
LAN2355	Russian-III				
LAN2356	Chinese-III				
LAN2357	Portuguese-III				
LAN2358	Korean-III				
LAN2359	Japanese-III				
LAN2359	Hindi-III				
CSS2351	Reading and Comprehension*	1	-	-	1
BEH2351	Group Dynamics and Team Building*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				26

FOURTH SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
MTH2413	Numerical Methods	3	-	-	3
MTH2414	Numerical Methods Lab	-	-	2	1
MTH2415	Linear Algebra & Matrix Theory	3	1	-	4
MTH2416	Discrete Mathematics	3	1	-	4
MTH2420	Complex Analysis	3	1	-	4
Open Electives					4*+3
LAN2451	Foreign Language-IV*	2	-	-	2
LAN2452	French-IV				
LAN2453	German-IV				
LAN2454	Spanish-IV				
LAN2455	Russian-IV				
LAN2456	Chinese-IV				
LAN2457	Portuguese-IV				
LAN2458	Korean-IV				
LAN2459	Japanese-IV				
LAN2459	Hindi-IV				
CSS2451	Corporate Communication*	1	-	-	1
BEH2451	Stress and Coping Strategies*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				23

SUMMER INTERNSHIP

FIFTH SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credit
MTH2503	Mechanics	3	1	-	4
MTH2504	Operations Research	3	1	-	4
MTH2516	Practical Introduction to MATLAB	3	-	-	3
MTH2517	Lab Based on MATLAB	-	-	2	1
MTH2535	Summer Internship Evaluation-II	-	-	-	3
	Concentration Electives				3
MTH2515	Mathematical Modeling	3	-	-	3
MTH2518	Fuzzy Sets and Fuzzy Logic	3	-	-	3
MTH2519	R Programming and SAS	3	-	-	3
	Open Electives				4*+3

LAN2551	Foreign Language-V*	2	-	-	2
LAN2552	French-V				
LAN2553	German-V				
LAN2554	Spanish-V				
LAN2555	Russian-V				
LAN2556	Chinese-V				
LAN2557	Portuguese-V				
LAN2558	Korean-V				
LAN2559	Japanese-V				
LAN2559	Hindi-V				
CSS2551	Employability Skills*	1	-	-	1
BEH2551	Individual ,Society and Nations*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				25

SIXTH SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
MTH2602	Dynamics	3	1	-	4
MTH2615	Special Functions & Integral Transforms	3	1	-	4
MTH2637	Dissertation	-	-	-	4
	Elective-I (Select Any One)				3
MTH2609	Biostatistics	3	-	-	3
MTH2616	Biomathematics	3	-	-	3
MTH2617	Biomechanics	3	-	-	3
	Elective-II (Select Any One)				4
MTH2603	Financial Mathematics	3	1	-	4
MTH2611	Number Theory	3	1	-	4
MTH2618	Functional Analysis	3	1	-	4
MTH2619	Introduction to Statistical Inference	3	1	-	4
	Open Electives				(2*+3)
CSS2651	Workplace Communication*	1	-	-	1
BEH2651	Interpersonal Communication and Relationship Management*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				24

B.Sc. (Honors) Physics (Total Credits-150)

Programme Structure-2018

FIRST SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
PHY2101	Mechanics	2	1	-	3
PHY2102	Waves & Oscillations	2	1	-	3
PHY2104	Physics Lab-I	-	-	4	2
PHY2105	Applied Mathematics-I	2	1	-	3
PHY2106	Applied Chemistry-I	2	-	-	2
PHY2107	Applied Chemistry Lab-I	-	-	2	1
PHY2108	Properties of Matter	2	1	-	3
Open Electives					7*+3
LAN2151	Foreign Language-I*	3	-	-	3
LAN2152	French-I				
LAN2153	German-I				
LAN2154	Spanish-I				
LAN2155	Russian-I				
LAN2156	Chinese-I				
LAN2157	Portuguese-I				
LAN2158	Korean-I				
LAN2159	Japanese-I				
LAN2159	Hindi-I **				
CSS2151	Effective Listening *	1	-	-	1
BEH2151	Understanding Self for Effectiveness*	1	-	-	1
ENV2151	Environmental Studies-I*	2	-	-	2
	Minor Track Course (Flexi)	-	-	-	3
TOTAL					27

** Hindi as Foreign Language for Foreign National Students

SECOND SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
PHY2201	Thermodynamics	2	1	-	3
PHY2202	Optics	2	1	-	3
PHY2203	Mathematical Physics-I	2	1	-	3
PHY2204	Physics Lab-II	-	-	4	2

PHY2205	Applied Mathematics-II	2	1	-	3
PHY2206	Applied Chemistry-II	2	-	-	2
PHY2207	Applied Chemistry Lab-II	-	-	2	1
	Open Electives				7*+3
LAN2251	Foreign Language-II*	3	-	-	3
LAN2252	French-II				
LAN2253	German-II				
LAN2254	Spanish-II				
LAN2255	Russian-II				
LAN2256	Chinese-II				
LAN2257	Portuguese-II				
LAN2258	Korean-II				
LAN2259	Japanese-II				
LAN2259	Hindi-II				
CSS2251	Presentation Skills *	1	-	-	1
BEH2251	Problem Solving and Creative Thinking*	1	-	-	1
ENV2251	Environmental Studies-II*	2	-	-	2
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				27

THIRD SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
PHY2301	Electricity & Magnetism	2	1	-	3
PHY2303	Analog Electronics	2	1	-	3
PHY2304	Physics Lab-III	-	-	4	2
PHY2308	Mathematical Physics-II	2	1	-	3
PHY2309	Classical Mechanics	2	1	-	3
	Concentration Electives				3
PHY2306	Computer programming in C/Mat lab	2	1	-	3
PHY2331	Term Paper	-	-	-	2
PHY2332	Project (with Presentation & Evaluation)	-	-	-	3
PHY2333	Workshop / Certification (Discipline Specific) (1credit per workshop)	-	-	-	1
PHY2334	Study Abroad	-	-	-	3
	Open Electives				4*+3

LAN2351	Foreign Language-III*	2	-	-	2
LAN2352	French-III				
LAN2353	German-III				
LAN2354	Spanish-III				
LAN2355	Russian-III				
LAN2356	Chinese-III				
LAN2357	Portuguese-III				
LAN2358	Korean-III				
LAN2359	Japanese-III				
LAN2359	Hindi-III				
CSS2351	Reading & Comprehension *	1	-	-	1
BEH2351	Group Dynamics and Team Building*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				24

FOURTH SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
PHY2404	Physics Lab-IV	-	-	4	2
PHY2407	Electrodynamics	2	1	-	3
PHY2408	Statistical Mechanics	2	1	-	3
PHY2410	Quantum Mechanics	2	1	-	3
PHY2411	Digital Electronics	2	1	-	3
Concentration Electives					3
PHY2406	Laser Physics	2	1	-	3
PHY2431	Term Paper	-	-	-	2
PHY2432	Project (with Presentation & Evaluation)	-	-	-	3
PHY2433	Workshop / Certification (Discipline Specific) (1credit per workshop)	-	-	-	1
PHY2434	Study Abroad	-	-	-	3
Open Electives					4*+3
LAN2451	Foreign Language-IV*	2	-	-	2
LAN2452	French-IV				
LAN2453	German-IV				
LAN2454	Spanish-IV				
LAN2455	Russian-IV				
LAN2456	Chinese-IV				
LAN2457	Portuguese-IV				
LAN2458	Korean-IV				
LAN2459	Japanese-IV				
LAN2459	Hindi-IV				
CSS2451	Corporate Communication*	1	-	-	1
BEH2451	Stress and Coping Strategies*	1	-	-	1

	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				24

**SUMMER PROJECT
FIFTH SEMESTER**

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
PHY2503	Nuclear & Particle Physics	2	1	-	3
PHY2504	Physics Lab-V	-	-	4	2
PHY2506	Solid State Physics	2	1	-	3
PHY2508	Applied Mathematics-III	3	-	-	3
PHY2509	Applied Mathematics-III Lab	-	-	2	1
PHY2510	Atomic & Molecular Physics	2	1	-	3
PHY2535	Summer Project Evaluation	-	-	-	3
Concentration Electives					3
PHY2505	Spectroscopy	2	1	-	3
PHY2511	Introduction to Astronomy	2	1	-	3
PHY2531	Term Paper	-	-	-	2
PHY2533	Workshop / Certification (Discipline Specific) (1credit per workshop)	-	-	-	1
PHY2534	Study Abroad	-	-	-	3
Open Electives					4*+3
LAN2551	Foreign Language-V*	2	-	-	2
LAN2552	French-V				
LAN2553	German-V				
LAN2554	Spanish-V				
LAN2555	Russian-V				
LAN2556	Chinese-V				
LAN2557	Portuguese-V				
LAN2558	Korean-V				
LAN2559	Japanese-V				
LAN2559	Hindi-V				
CSS2551	Employability Skills *	1	-	-	1
BEH2551	Individual ,Society and Nations*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				28

SIXTH SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
PHY2606	Introduction to Nanotechnology	2	1	-	3
PHY2607	Accelerators and Detectors	2	1	-	3
PHY2609	Mathematical Physics-III	2	1	-	3
PHY2637	Final Project / Dissertation	-	-	-	3
Concentration Electives					3
PHY2605	Low Temperature Physics and Superconductivity	2	1	-	3
PHY2610	Semiconductor Physics and Devices	2	1	-	3
PHY2631	Term Paper	-	-	-	2
PHY2632	Project (with Presentation & Evaluation)	-	-	-	3
PHY2633	Workshop / Certification Discipline Specific) (1credit per workshop)	-	-	-	1
PHY2634	Study Abroad	-	-	-	3
Open Electives				2*+3	
CSS2651	Workplace Communication *	1	-	-	1
BEH2651	Interpersonal Communication and Relationship Management*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				20

B.Sc. (Honors) Forensic Science (Total Credits-150)

Programme Structure-2018

FIRST SEMESTER

Course Code	Course Title	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
FCH2102	Introduction to Forensic Science	2	-	-	2
FCH2103	Fundamentals of Crime Scene Investigation	2	1	-	3
FCH2104	Biology	2	-	-	2
FCH2105	Applied Mathematics	2	-	-	2
FCH2107	Human Anatomy and Physiology	2	1	-	3
FCH2108	Crime Scene Investigation Lab	-	-	4	2
Open Electives					7*+3
LAN2151	Foreign Language -I*	3	-	-	3
LAN2152	French- I				
LAN2153	German-I				
LAN2154	Spanish-1				
LAN2155	Russian-I				
LAN2156	Chinese-I				
LAN2157	Portuguese-I				
LAN2158	Korean-I				
LAN2159	Japanese-I				
LAN2159	Hindi-I **				
CSS2151	Effective Listening *	1	-	-	1
BEH2151	Understanding Self for Effectiveness*	1	-	-	1
ENV2151	Environmental Studies-I*	2	-	-	2
	Minor Track Course (Flexi)	-	-	-	3
TOTAL					24

** Hindi as Foreign Language for Foreign National Students

SECOND SEMESTER

Course Code	Course Title	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
FCH2201	Physical Evidence in Forensic Science	2	1	-	3

FCH2202	Fingerprint Science	2	1	-	3
FCH2203	The Metric System & Physical Properties of Evidences	2	1	-	3
FCH2204	Research Methodology and Statistics	2	-	-	2
FCH2205	Chemistry	2	-	-	2
FCH2207	Fingerprinting Lab	-	-	2	1
FCH2208	Metric System Lab	-	-	2	1
Open Electives					7*+3
LAN2251	Foreign Language – II*	3	-	-	3
LAN2252	French- II				
LAN2253	German-II				
LAN2254	Spanish-II				
LAN2255	Russian-II				
LAN2256	Chinese-II				
LAN2257	Portuguese-II				
LAN2258	Korean-II				
LAN2259	Japanese-II				
LAN2259	Hindi-II				
CSS2251	Presentation Skills *	1	-	-	1
BEH2251	Problem Solving and Creative Thinking*	1	-	-	1
ENV2251	Environmental Studies-II*	2	-	-	2
	Minor Track Course (Flexi)	-	-	-	3
TOTAL					25

THIRD SEMESTER

Course Code	Course Title	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
FCH2301	Microscopy	2	1	-	3
FCH2302	Introduction to Forensic Serology	2	1	-	3
FCH2303	Forensic Toxicology-I	2	1	-	3
FCH2305	Physics	2	-	-	2
FCH2310	Handwriting and Typewriting Analysis	2	1	-	3
FCH2311	Forensic Serology Lab	-	-	4	2
Concentration Electives					3
FCH2308	Crime Scenario in India	2	1	-	3
FCH2309	Wildlife Forensic and Risk Management	2	1	-	3
Open Electives					4*+3

LAN2351	Foreign Language – III*	2	-	-	2
LAN2352	French- III				
LAN2353	German-III				
LAN2354	Spanish-III				
LAN2355	Russian-III				
LAN2356	Chinese-III				
LAN2357	Portuguese-III				
LAN2358	Korean-III				
LAN2359	Japanese-III				
LAN2359	Hindi-III				
CSS2351	Reading & Comprehension *	1	-	-	1
BEH2351	Group Dynamics and Team Building*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				26

FOURTH SEMESTER

Course Code	Course Title	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
FCH2402	Fundamentals of Forensic Photography	2	-	-	2
FCH2403	Forensic Anthropology	2	1	-	3
FCH2404	Forensic Toxicology-II	2	1	-	3
FCH2409	Introduction to Questioned Documents	2	1	-	3
FCH2410	Forensic Anthropology Lab	-	-	2	1
FCH2411	Forensic Toxicology Lab	-	-	2	1
Concentration Electives					3
FCH2407	Basics of Forensic Chemistry-I	2	1	-	3
FCH2408	Basics of Forensic Physics-I	2	1	-	3
FCH2431	Term Paper	-	-	-	2
FCH2432	Project (with Presentation & Evaluation)	-	-	-	3
FCH2433	Workshop / Certification (Discipline Specific) (1credit per workshop)	-	-	-	1
FCH2434	Study Abroad	-	-	-	3
Open Electives					4*+3

LAN2451	Foreign Language – IV*	2	-	-	2
LAN2452	French- IV				
LAN2453	German-IV				
LAN2454	Spanish-IV				
LAN2455	Russian-IV				
LAN2456	Chinese-IV				
LAN2457	Portuguese-IV				
LAN2458	Korean-IV				
LAN2459	Japanese-IV				
LAN2459	Hindi-IV				
CSS2451	Corporate Communication *	1	-	-	1
BEH2451	Stress and Coping Strategies*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				23

SUMMER PROJECT

FIFTH SEMESTER

Course Code	Course Title	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
FCH2501	Ballistics	2	1	-	3
FCH2502	DNA Fingerprinting	2	1	-	3
FCH2505	Instrumentation – Biological	1	-	-	1
FCH2510	Instrumentation – Physical & Chemical	2	1	-	3
FCH2511	DNA Fingerprinting Lab	-	-	2	1
FCH2512	Forensic Ballistic Lab	-	-	2	1
FCH2535	Summer Project Evaluation	-	-	-	6
Concentration Electives					3
FCH2507	Forensic Chemistry-II	2	1	-	3
FCH2508	Forensic Physics-II	2	1	-	3
FCH2509	Technical Writing in Science-I	2	-	-	2
FCH2531	Term Paper	-	-	-	2
FCH2533	Workshop / Certification (Discipline Specific) (1credit per workshop)	-	-	-	1
FCH2534	Study Abroad	-	-	-	3
Open Electives					4*+3
LAN2551	Foreign Language-V*	2	-	-	2
LAN2552	French-V				
LAN2553	German-V				
LAN2554	Spanish-V				
LAN2555	Russian-V				
LAN2555	Chinese-V				

LAN2556	Portuguese-V				
LAN2557	Korean-V				
LAN2558	Japanese-V				
LAN2559	Hindi-V				
CSS2551	Employability Skills *	1	-	-	1
BEH2551	Individual ,Society and Nations*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				28

SIXTH SEMESTER

Course Code	Course Title	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
FCH2601	Wounds & its Medico-Legal Aspects	2	1	-	3
FCH2602	Arson and Explosion Investigation	2	1	-	3
FCH2603	Security Documents and Bank Notes	2	-	-	2
FCH2613	Elements of Criminology, Criminal Law & Police Administration	2	1	-	3
FCH2615	Questioned Document Lab	-	-	4	2
FCH2614	Seminar	-	-	-	3
Concentration Electives					3
FCH2610	Basics of Forensic Psychology	2	1	-	3
FCH2611	Basics of Digital and Cyber Forensic	2	1	-	3
FCH2612	Technical Writing in Science-II	2	-	-	2
FCH2631	Term Paper	-	-	-	2
FCH2632	Project (with Presentation & Evaluation)	-	-	-	3
FCH2633	Workshop / Certification (Discipline Specific) (1credit per workshop)	-	-	-	1
Open Electives					2*+3
CSS2651	Workplace Communication *	1	-	-	1
BEH2651	Interpersonal Communication and Relationship Management*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				24

M.Sc.- Applied Chemistry (Total Credits-100)

Programme Structure-2018

FIRST SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
CHY4101	Physical Chemistry	3	1	-	4
CHY4102	Organic Chemistry	3	1	-	4
CHY4109	Inorganic Chemistry	3	1	-	4
CHY4103	Computers Programming using 'C' Language	1	1	-	2
CHY4104	Applied Mathematics	1	1	-	2
CHY4105	Physical Chemistry Lab	-	-	4	2
CHY4106	Organic Chemistry Lab	-	-	4	2
CHY4107	Computers Programming using 'C' Language Lab	-	-	2	1
CHY4108	Seminar	-	-	-	1
Open Electives					5
CSS4151	Basics of Communication	1	-	-	1
BEH4151	Self Development and Interpersonal skills	1	-	-	1
LAN4151	Foreign Business Language-I	3	-	-	3
LAN4152	French-I				
LAN4153	German-I				
LAN4154	Spanish-I				
LAN4155	Russian-I				
LAN4156	Chinese-I				
LAN4157	Portuguese-I				
LAN4158	Korean-I				
LAN4159	Japanese-I				
	Hindi-I **				
TOTAL					27

** Hindi as Foreign Language for Foreign National Students

SECOND SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
CHY4201	Analytical Chemistry	3	1	-	4
CHY4202	Industrial Chemistry	2	1	-	3
CHY4209	Advanced Inorganic Chemistry	3	1	-	4
CHY4205	Chemistry of Materials & Nano	1	1	-	2

	Materials				
CHY4206	Analytical Chemistry Lab	-	-	4	2
CHY4207	Industrial Chemistry Lab	-	-	2	1
CHY4208	Inorganic Chemistry Lab	-	-	4	2
CHY4210	Seminar/ Workshop/Term Paper	-	-	-	1
	Open Electives				5
CSS4251	Corporate Communication	1	-	-	1
BEH4251	Behavioral Communication and Relationship Management	1	-	-	1
LAN4251	Foreign Business Language-II	3	-	-	3
LAN4252	French-II				
LAN4253	German-II				
LAN4254	Spanish-II				
LAN4255	Russian-II				
LAN4256	Chinese-II				
LAN4257	Portuguese-II				
LAN4258	Korean-II				
LAN4259	Japanese-II				
	Hindi-II				
	TOTAL				24

SUMMER INTERNSHIP

Note: Students must submit their summer internship report immediately on return from summer vacation in July /August and the same would be evaluated for 6 credit units, which would be included in the Third Semester marks.

THIRD SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
CHY4301	Instrumental Methods of Analysis	2	1	-	3
CHY4318	Advanced Organic Chemistry	3	1	-	4
CHY4319	Advanced Physical Chemistry	3	1	-	4
CHY4306	Organometallic Chemistry	3	1	-	4
CHY4316	Applied Chemistry Lab	-	-	4	2
CHY4317	Instrumental Lab	-	-	2	1
CHY4335	Summer Internship Evaluation + Project Formulation	-	-	-	6
CHY4320	Seminar/ Workshop / Term Paper	-	-	-	1
	Electives (Any One)				3
CHY4304	Drugs and Dyes	2	1	-	3

CHY4305	Natural Products Chemistry	2	1	-	3
CHY4307	Industrial Management and Safety Processes	2	1	-	3
CHY4308	Nanochemistry	2	1	-	3
CHY4309	Chemistry of Cosmetics	2	1	-	3
CHY4310	Medicinal Chemistry	2	1	-	3
CHY4311	Polymer Technology	2	1	-	3
CHY4312	Non-Conventional Energy Sources	2	1	-	3
CHY4313	Industrial Waste and Water Treatment	2	1	-	3
CHY4314	Nuclear Chemistry	2	1	-	3
CHY4315	Food Technology	2	1	-	3
CHY4321	Environmental Chemistry	2	1	-	3
CHY4322	Renewable Energy Conversion Systems	2	1	-	3
	Open Electives				4
CSS4351	Interpersonal Communication	1	-	-	1
BEH4351	Leading through Teams	1	-	-	1
LAN4351 LAN4352 LAN4353 LAN4354 LAN4355 LAN4356 LAN4357 LAN4358 LAN4359	Foreign Business Language-III French-III German-III Spanish-III Russian-III Chinese-III Portuguese-III Korean-III Japanese-III Hindi-III	2	-	-	2
	TOTAL				32

FOURTH SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
CHY4404	Advanced Analytical Techniques	2	1	-	3
CHY4405	Introduction to Polymeric Materials	2	1	-	3
CHY4406	Research Paper/ Review / Seminar	-	-	-	1
CHY4437	Research Work Based Project*	-	-	-	10
	TOTAL				17

*Student will be sent to laboratories at universities, national institute and industries for their project based research work during 4th semester. At the end of 4th semester student will be evaluated on the basis of dissertation followed by presentation of their research work.

M.Sc.- Applied Mathematics (Total Credits-100)

Programme Structure-2018

FIRST SEMESTER

Course Code	Course Title	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
MTH4101	Complex Analysis	3	1	-	4
MTH4102	Real Analysis	3	1	-	4
MTH4105	Computer Mathematics and 'C' Language	3	-	-	3
MTH4106	Computer Mathematics and 'C' Language Lab	-	-	2	1
MTH4109	Ordinary Differential Equations	3	1	-	4
MTH4110	Linear Algebra	3	1	-	4
Open Electives					5
CSS4151	Basics of Communication	1	-	-	1
BEH4151	Self Development and interpersonal Skills	1	-	-	1
LAN4151	Foreign Business Language-I	3	-	-	3
LAN4152	French-I				
LAN4153	German-I				
LAN4154	Spanish-1				
LAN4155	Russian-I				
LAN4156	Chinese-I				
LAN4157	Portuguese-I				
LAN4158	Korean-I				
LAN4159	Japanese-I				
LAN4159	Hindi-I **				
TOTAL					25

** Hindi as Foreign Language for Foreign National Students

SECOND SEMESTER

Course Code	Course Title	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
MTH4203	Optimization Techniques	3	1	-	4
MTH4205	Topology	3	1	-	4
MTH4206	Statistics Based Lab	-	-	2	1
MTH4213	Partial Differential Equations	3	1	-	4
MTH4214	Probability and Statistics	3	-	-	3
MTH4215	Practical Introduction to MATLAB	3	-	-	3
MTH4216	Lab Based on MATLAB	-	-	2	1

	Open Electives				5
CSS4251	Corporate Communication	1	-	-	1
BEH4251	Behavioral Communication and Relationship Management	1	-	-	1
LAN4251	Foreign Business Language-II	3	-	-	3
LAN4252	French-II				
LAN4253	German-II				
LAN4254	Spanish-II				
LAN4255	Russian-II				
LAN4256	Chinese-II				
LAN4257	Portuguese-II				
LAN4258	Korean-II				
LAN4259	Hindi-II				
	TOTAL				25

SUMMER INTERNSHIP

Note: In summer vacation, a summer school for 4-6 weeks shall be conducted for students to introduce technical softwares related to Scientific computing and Statistics. Students will undertake problems for summer internship based on using these softwares on some practical problems. Students shall submit their summer internship report immediately on return from summer vacation in July/August. Credit distribution is as follows 2 credits shall be based on the performance in the summer school and 4 credits based on the evaluation on the internship report.

THIRD SEMESTER

Course Code	Course Title	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
MTH4325	Numerical Analysis	3	-	-	3
MTH4326	Abstract Algebra	3	1	-	4
MTH4327	Numerical Analysis Lab with C / MATLAB	-	-	2	1
MTH4331	Term Paper	-	-	-	4
MTH4333	Workshop (Technical writing with LaTeX)	-	-	-	1
MTH4335	Summer Internship Evaluation	-	-	-	6
	Electives (Choose Any TWO)				4+4 (8)
MTH4303	Discrete Mathematical Structures	3	1	-	4
MTH4305	Fuzzy Sets and their Applications	3	1	-	4
MTH4328	Integral Equations & Calculus of Variations	3	1	-	4
MTH4329	Number Theory & Cryptography	3	1	-	4
MTH4340	Tensors and Differential Geometry	3	1	-	4
MTH4341	Statistical Methods	3	1	-	4
	Open Electives				4
CSS4351	Interpersonal Communication	1	-	-	1
BEH4351	Leading through Teams	1	-	-	1
	Foreign Business Language-III	2	-	-	2

LAN4351	French-III				
LAN4352	German-III				
LAN4353	Spanish-III				
LAN4354	Russian-III				
LAN4355	Chinese-III				
LAN4356	Portuguese-III				
LAN4357	Korean-III				
LAN4358	Japanese-III				
LAN4359	Hindi-III				
	TOTAL				31

FOURTH SEMESTER

Course Code	Course Title	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
MTH4409	Fluid Dynamics	3	1	-	4
MTH4433	Workshop *	-	-	-	1
MTH4437	Dissertation (Including Presentation/ talk/ defense)	-	-	-	6
	Electives (Choose Any TWO)				4+4 (8)
MTH4402	Functional Analysis	3	1	-	4
MTH4410	Classical Mechanics	3	1	-	4
MTH4411	Mathematical Modeling	3	1	-	4
MTH4412	Biomechanics	3	1	-	4
MTH4413	Coding Theory	3	1	-	4
MTH4414	Stochastic Processes	3	1	-	4
MTH4415	Statistical Inference	3	1	-	4
MTH4416	Numerical Solutions to ODE and PDEs	3	1	-	4
	TOTAL				19

* Workshop shall be conducted on one of the following topics related to:

(1) Renewable Energy (2) Forensic Science (3) Nanotechnology (4) Cyber Security (5) Environmental Sciences (6) Computational Biology

M.Sc.- Applied Physics (Total Credits-100)

Programme Structure-2018

FIRST SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
PHY4101	Mathematical Physics	3	1	-	4
PHY4102	Classical Mechanics	3	1	-	4
PHY4103	Electronics	3	1	-	4
PHY4109	Quantum Mechanics-I	3	1	-	4
PHY4110	Computational Physics	3	-	2	4
PHY4111	Integrated Physics Lab-I	-	-	6	3
Open Electives					5
CSS4151	Basics of Communication	1	-	-	1
BEH4151	Self Development& Interpersonal Skills	1	-	-	1
LAN4151	Foreign Business Language-I	3	-	-	3
LAN4152	French-I				
LAN4153	German-I				
LAN4154	Spanish-I				
LAN4155	Russian-I				
LAN4156	Chinese-I				
LAN4157	Portuguese-I				
LAN4158	Korean-I				
LAN4159	Japanese-I				
LAN4159	Hindi-I **				
TOTAL					28

** Hindi as Foreign Language for Foreign National Students

SECOND SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
PHY4202	Statistical Mechanics	3	1	-	4
PHY4208	Quantum Mechanics-II	3	1	-	4
PHY4209	Condensed Matter Physics-I	3	1	-	4
PHY4212	Integrated Physics Lab-II	-	-	6	3
PHY4213	Nuclear and Particle Physics	3	1	-	4
PHY4214	Atomic and Molecular & Laser Physics	3	1	-	4
Open Electives					5
CSS4251	Corporate Communication	1	-	-	1

BEH4251	Behavioral Communication & Relationship Management	1	-	-	1
LAN4251	Foreign Business Language-II	3	-	-	3
LAN4252	French-II				
LAN4253	German-II				
LAN4254	Spanish-II				
LAN4255	Russian-II				
LAN4256	Chinese-II				
LAN4257	Portuguese-II				
LAN4258	Korean-II				
LAN4259	Japanese-II				
LAN4259	Hindi-II				
TOTAL					28

Summer Internship / Research Review

Note: Students must submit their Research Review Report. It would be evaluated for 2 credit units, which would be included in the Third Semester Marks.

THIRD SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
PHY4314	Experimental Techniques-I	2	1	-	3
PHY4315	Condensed Matter Physics-II	3	1	-	4
PHY4316	Integrated Physics Lab-III	-	-	6	3
PHY4320	Electrodynamics	3	1	-	4
PHY4335	Summer Internship Evaluation / Research Review-I	-	-	-	2
Elective Paper (Select any one)					3
PHY4306	Digital Electronics & Microprocessors	3	-	-	3
PHY4307	Material Science	3	-	-	3
PHY4317	Renewable Energy Resources	3	-	-	3
PHY4318	Introduction to Astrophysics	3	-	-	3
PHY4319	Non-linear Dynamics	3	-	-	3
Open Electives					4
CSS4351	Interpersonal Communication	1	-	-	1
BEH4351	Leading through Teams	1	-	-	1
LAN4351	Foreign Business Language-III	2	-	-	2
LAN4352	French-III				
LAN4353	German-III				
LAN4354	Spanish-III				
LAN4355	Russian-III				
LAN4356	Chinese-III				
LAN4357	Portuguese-III				
LAN4357	Korean-III				

LAN4358	Japanese-III				
LAN4359	Hindi-III				
	TOTAL				23

FOURTH SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
PHY4402	Experimental Techniques-II	2	1	-	3
PHY4435	Research Review-II	-	-	-	2
PHY4437	Research Based Project	-	-	-	13
	Elective Paper (Select any one)				3
PHY4404	Nano-Science & Technology	2	1	-	3
PHY4405	Atmospheric Physics	2	1	-	3
PHY4406	General Relativity & Cosmology	2	1	-	3
PHY4407	Optical Fibers & Communications	2	1	-	3
PHY4408	Physics of Solar Photovoltaics	2	1	-	3
PHY4409	Biophysics	2	1	-	3
	TOTAL				21

M.Sc.- Forensic Science (Total Credits-100)

Programme Structure-2018

FIRST SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
FCH4101	Criminology, Criminal Law, Police Administration	2	1	-	3
FCH4103	Forensic Physics	2	1	-	3
FCH4106	Forensic Ballistics	2	-	-	2
FCH4107	Forensic Physics - Practical	-	-	4	2
FCH4108	Crime Scene Investigation (CSI) - Practical	-	-	4	2
FCH4111	Forensic and Criminal Investigation	2	1	-	3
FCH4112	Instrumental Analysis (Chemical)	2	1	-	3
FCH4110	Seminar	-	-	-	1
Open Electives					5
CSS4151	Basics of Communication	1	-	-	1
BEH4151	Self Development and Interpersonal skills	1	-	-	1
LAN4151	Foreign Business Language-I	3	-	-	3
LAN4152	French-I				
LAN4153	German-I				
LAN4154	Spanish-I				
LAN4155	Russian-I				
LAN4156	Chinese-I				
LAN4157	Portuguese-I				
LAN4158	Korean-I				
LAN4159	Japanese-I				
LAN4159	Hindi-I **				
TOTAL					24

** Hindi as Foreign Language for Foreign National Students

SECOND SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
FCH4201	Forensic Photography	2	-	-	2
FCH4202	Elements of Forensic Medicine, Odontology	2	1	-	3
FCH4205	Questioned Documents	2	1	-	3

FCH4206	Photography, Forensic Medicine & Odontology - Practical	-	-	4	2
FCH4208	Questioned Documents & Fingerprints - Practical	-	-	4	2
FCH4209	Instrumental Analysis (Biological)	2	1	-	3
FCH4210	Fingerprint Science	2	1	-	3
FCH4211	Arson & Explosives	2	1	-	3
FCH4212	Seminar / Workshop / Term Paper	-	-	-	1
Open Electives					5
BEH4251	Behavioral Communication and Relationship Management	1	-	-	1
CSS4251	Corporate Communication	1	-	-	1
LAN4251	Foreign Business Language-II	3	-	-	3
LAN4251	French-II				
LAN4252	German-II				
LAN4253	Spanish-II				
LAN4254	Russian-II				
LAN4255	Chinese-II				
LAN4256	Portuguese-II				
LAN4257	Korean-II				
LAN4258	Japanese-II				
LAN4259	Hindi-II				
TOTAL					27

SUMMER INTERNSHIP

Note: Students must submit their summer internship report immediately on return from summer vacation in July /August and the same would be evaluated for 6 credit units, which would be included in the Third Semester marks.

THIRD SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
FCH4301	Forensic Chemistry, Toxicology & Pharmacology	2	1	-	3
FCH4302	Forensic Biology & Serology	2	1	-	3
FCH4304	Forensic Biology and Serology - Practical	-	-	4	2
FCH4305	Forensic Chemistry & Toxicology - Practical	-	-	4	2
FCH4315	Statistics & Research Methodology	2	1	-	3
FCH4316	Instrumental Analysis (Physical)	2	1	-	3
FCH4318	Seminar/ Workshop/ Term Paper	-	-	-	1

FCH4335	Summer Internship Evaluation + Project Formulation	-	-	-	6
Electives-I (Any One)					3
FCH4306	Advanced Forensic Biology & Anthropology	2	1	-	3
FCH4314	Principles of Human Genetics	2	1	-	3
FCH4317	Cyber Forensic & Computer Application	2	1	-	3
Electives-II (Any One)					3
FCH4310	Advanced Questioned Documents Examination	2	1	-	3
FCH4311	Advanced Fingerprinting and other Impressions	2	1	-	3
Open Electives					4
CSS4351	Interpersonal Communication	1	-	-	1
BEH4351	Leading Through Teams	1	-	-	1
LAN4351	Foreign Business Language-III	2	-	-	2
LAN4352	French-III				
LAN4353	German-III				
LAN4354	Spanish-III				
LAN4355	Russian-III				
LAN4356	Chinese-III				
LAN4357	Portuguese-III				
LAN4358	Korean-III				
LAN4359	Hindi-III				
TOTAL					33

FOURTH SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
FCH4405	Quality Management & Accreditation in Forensic Science	2	-	-	2
FCH4406	Advanced Analytical Techniques	2	1	-	3
FCH4407	Research Paper/ Review/ Seminar	-	-	-	1
FCH4437	Research Work Based Project*	-	-	-	10
TOTAL					16

*Student will be sent to laboratories at universities, national institute and industries for their project based research work during 4th semester. At the end of 4th semester student will be evaluated on the basis of dissertation followed by presentation of their research work.

M.Sc.- Biochemistry (Total Credits-100)

Programme Structure-2018

FIRST SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
BCH4101	Basic Biochemistry	3	1	-	4
BCH4102	Biostatistics and Bioinformatics	2	1	-	3
BCH4103	Cellular and Physiological Biochemistry	3	1	-	4
BCH4104	Biochemical Engineering	3	1	-	4
BCH4105	Biochemistry Lab	-	-	4	2
BCH4106	Basic Instrumentation Techniques	2	1	-	3
BCH4107	Biochemical Engineering Lab	-	-	4	2
BCH4108	Seminar	-	-	-	1
Open Electives					5
CSS4151	Basics of Communication	1	-	-	1
BEH4151	Self Development and Interpersonal skills	1	-	-	1
LAN4151	Foreign Business Language-I	3	-	-	3
LAN4152	French-I				
LAN4153	German-I				
LAN4154	Spanish-I				
LAN4155	Russian-I				
LAN4156	Chinese-I				
LAN4157	Portuguese-I				
LAN4158	Korean-I				
LAN4159	Japanese-I				
LAN4159	Hindi-I **				
TOTAL					28

** Hindi as Foreign Language for Foreign National Students

SECOND SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
BCH4201	Advanced Biochemistry	3	1	-	4
BCH4202	Structural Biology	2	1	-	3
BCH4203	Genetics	3	1	-	4
BCH4204	Clinical Biochemistry	2	1	-	3
BCH4205	Computers Programming using 'C' Language Lab	-	-	2	1

BCH4206	Advanced Biochemistry Lab	-	-	4	2
BCH4207	Genetics Lab	-	-	2	1
BCH4208	Clinical Biochemistry Lab	-	-	2	1
	Open Electives				5
CSS4251	Corporate Communication	1	-	-	1
BEH4251	Behavioral Communication and Relationship Management	1	-	-	1
LAN4251	Foreign Business Language-II	3	-	-	3
LAN4252	French-II				
LAN4253	German-II				
LAN4254	Spanish-II				
LAN4255	Russian-II				
LAN4256	Chinese-II				
LAN4257	Portuguese-II				
LAN4258	Korean-II				
LAN4259	Hindi-II				
	TOTAL				24

SUMMER INTERNSHIP

Note: Students must submit their summer internship report immediately on return from summer vacation in July /August and the same would be evaluated for 6 credit units, which would be included in the Third Semester marks.

THIRD SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
BCH4301	Recombinant DNA Technology	3	1	-	4
BCH4302	Advanced Genetics	2	1	-	3
BCH4303	Molecular Biology	3	1	-	4
BCH4304	Immunology	2	1		3
BCH4306	Molecular Biology & Microbiology Lab	-	-	4	2
BCH4307	Instrumental Lab	-	-	2	1
BCH4335	Summer Internship Evaluation + Project Formulation	-	-	-	6
	Electives (Any One)				3
BCH4308	Microbiology	2	1	-	3
BCH4309	Advanced Cell Biology & Developmental Biology	2	1	-	3
BCH4310	Ecology	2	1	-	3
	Electives Lab (Any One)				2
BCH4311	Microbiology Lab	-	-	4	2

BCH4312	Advanced Cell Biology & Developmental Biology Lab	-	-	4	2
BCH4313	Ecology Lab	-	-	4	2
Open Electives					4
CSS4351	Interpersonal Communication	1	-	-	1
BEH4351	Leading Through Teams	1	-	-	1
LAN4351	Foreign Business Language-III	2	-	-	2
LAN4352	French-III				
LAN4353	German-III				
LAN4354	Spanish-III				
LAN4355	Russian-III				
LAN4356	Chinese-III				
LAN4357	Portuguese-III				
LAN4358	Korean-III				
LAN4359	Japanese-III				
	Hindi-III				
TOTAL					32

FOURTH SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
BCH4401	Neurobiochemistry	2	1	-	3
BCH4405	Advanced Analytical Techniques	2	1	-	3
BCH4406	Research Paper/ Seminar	-	-	-	1
BCH4437	Project Work-Dissertation	-	-	-	9
TOTAL					16

*Student will be sent to laboratories at universities, national institute and industries for their project based research work during 4th semester. At the end of 4th semester student will be evaluated on the basis of dissertation followed by presentation of their research work.