M.A. Music (Vocal)

Semester I					
Course code	Course Title	L	T	P	Credits
MAVO 521	Theory (General and Applied Theory of Indian Classical Music, Part-I)	6	0	0	6
MAVO 522	Theory (Aesthetical study of Indian Music, Part-I)	6	0	0	6
MAVO 523	Practical (Stage –performance)	0	0	3	3
MAVO 524	Practical (Viva - Voce)	0	0	3	3
	Total				18
Semester II					
Course code	Course Title	L	T	P	Credits
MAVO 531	Theory (General and Applied theory of Indian Classical Music, Part -2)	6	0	0	6
MAVO 532	Theory (Aesthetical study of Indian Music, Part -2)	6	0	0	6
MAVO 533	Practical (Stage – Performance)	0	0	3	3
MAVO 534	Practical (Viva- Voce)	0	0	3	3
	Total				18
Semester III					
Course code	Course Title	L	T	P	Credits
MAVO 551	Theory (History of Indian Music, Part –I)	6	0	0	6
MAVO 552	Theory (A critical study of Gurmat Sangeet, Part –I)	6	0	0	6
MAVO 553	Practical (Stage- Performance)	0	0	4	4
MAVO554	Practical (Viva- Voce)	0	0	4	4
	Total				20
Semester IV					
Course code	Course Title	L	T	P	Credits
MAVO 571	Theory (History of Indian Music, Part-2)	6	0	0	6
MAVO 572	Theory (A critical study of Gurmat Sangeet , Part -2)	6	0	0	6
MAVO 573	Practical (Stage Performance)	0	0	4	4
MAVO 574	Practical (Viva- Voce)	0	0	4	4
MAVO 600	Project	0	0	0	5
	Total				25

M.A. Music (Instrumental)

	Semester I				
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
MAIN 521	Theory (General and Applied Theory of Indian Classical Instrumental Music, Part-I)	6	0	0	6
MAIN 522	Theory (Aesthetical study of Indian Music, Part-I)	6	0	0	6
MAIN 523	Practical (Stage –performance)	0	0	3	3
MAIN 524	Practical (Viva- Voce)	0	0	3	3
	Total				**18**
	Semester II				
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
MAIN 531	Theory (General and Applied theory of Indian Classical Instrumental Music, Part -2)	6	0	0	6
MAIN 532	Theory (Aesthetical study of Indian Music, Part -2)	6	0	0	6
MAIN 533	Practical (Stage – Performance)	0	0	3	3
MAIN 534	Practical (Viva- Voce)	0	0	3	3
	Total				**18**
	Semester III				
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
MAIN 551	Theory (History of Indian Music, Part –I)	6	0	0	6
MAIN 552	Theory (A critical study of Gurmat Sangeet, Part –I)	6	0	0	6
MAIN 553	Practical (Stage- performance)	0	0	4	4
MAIN 554	Practical (Viva- Voce)	0	0	4	4
	Total				**20**
	Semester IV				
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
MAIN 571	Theory (History of Indian Music, Part-2)	6	0	0	6
MAIN 572	Theory (A critical study of Gurmat Sangeet , Part -2)	6	0	0	6
MAIN 573	Practical (Stage performance)	0	0	4	4
MAIN 574	Practical (Viva- Voce)	0	0	4	4
MAIN 600	Project	0	0	0	5
					25

M.Sc. Biotechnology

Semester I					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
BT-501	Cell and Molecular Biology	3	0	0	3
BT-502	General Microbiology	3	0	0	3
BT-503	General Biochemistry	3	0	0	3
BT-504	General Genetics	3	0	0	3
BT-505	Computational Biology & Biostatistics	3	0	0	3
BT-506	Techniques in Biotechnology-I	0	0	3	3
	Total				**18**
Semester II					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
BT-507	Plant and Animal Biotechnology	3	0	0	3
BT-508	Pharmaceutical Biotechnology	3	0	0	3
BT-509	Instrumental methods of analysis	3	0	0	3
BT-510	Immunology	2	0	0	2
BT-511	Bioprocess Engineering and Technology	3	0	0	3
BT-512	Techniques in Biotechnology-II	0	0	3	3
BT-591	Seminar-I	0	1	0	1
	Total				**18**
Semester III					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
BT-513	Genetic Engineering	3	0	0	3
BT-514	Enzymes and Enzyme Technology	3	0	0	3
BT-515	Biosafety, Bioethics & IPR	3	0	0	3
	Optional Course*	2	0	0	2
	Optional Course*	2	0	0	2
BT-516	Techniques in Biotechnology-III	0	0	3	3
BT-591	Seminar on Business Plan Writing-II	0	1	0	1
	Total				**17**

Option-I					
BT-517	Transgenic Plants	2	0	0	2
BT-518	Food Biotechnology	2	0	0	2
BT-519	Plant Molecular Breeding	2	0	0	2
Option-II					
BT-520	Drug Metabolism & Pharmacokinetics	2	0	0	2
BT-521	Drug Designing and Molecular Modeling	2	0	0	2
BT-522	Novel Drug Delivery System	2	0	0	2
Option-III					
BT-523	Environmental Biotechnology	2	0	0	2
BT-524	Microbial Biotechnology	2	0	0	2
BT-525	Biosystematics and Biodiversity	2	0	0	2
Semester IV					
BT-591	Evaluation Seminar	0	1	0	1
BT-600	Dissertation	0	0	0	17
	Total				**18**

*Students can take only two courses within any of the three options.

Ph.D. Biotechnology

Semester I					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
BT-601	Advances in Molecular Biology	3	0	0	3
BT-602	Genomics and Proteomics	3	0	0	3
BT-603	Advances in Immunology	3	0	0	3
BT-604	Advances in Genetic Engineering	3	0	0	3
BT-691	Seminar	0	1	0	1
	Synopsis Seminar	0	0	0	0
	Total				**13**
Semester II					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
BT-605	Gene Regulation	3	0	0	3
BT-606	Epigenomics	3	0	0	3
BT-607	Stem Cells and Gene Therapy	3	0	0	3
BT-608	Pharmacogenomics	3	0	0	3
BT-691	Seminar	0	1	0	1
	*(More courses can be added time to time)				
	Total				**13**
Semester III					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
BT-700	Dissertation & Comprehensive Exam.	0	0	0	10
	Total				**10**
Semester IV					
BT-700	Dissertation	0	0	0	10
	Total				**10**
Semester V					
BT-700	Dissertation	0	0	0	10
	Total				**10**
Semester VI					
BT-700	Dissertation	0	0	0	10
	Dissertation Seminar	0	0	0	0
	Viva-voce	0	0	0	0
	Total				**10**

M.Tech. in Electronics & Communication Engineering

Semester I					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
ECE521	Mobile Communication	3	1	0	4
ECE522	VHDL	3	1	1	5
ECE523	VLSI Design	3	1	0	4
ECE524	Embedded Systems	3	1	0	4
MATH501	Quantitative Techniques	3	1	0	4
	Total				**21**
Semester II					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
ECE510	Digital Speech And Image Processing	3	1	0	4
ECE526	Optical Communication Systems	3	1	0	4
ECE527	Data Communication Networks	3	1	0	4
ECE529	Modern Communication Systems	3	1	0	4
ECE530	Communication Systems Simulation using MATLAB.	0	0	2	2
BT-609	Research Methodology	0	0	0	0
ECE600	Synopsis	0	0	0	0
	Total				**18**
Semester III					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
ECE531	Neural network & Fuzzy Logic	3	1	1	5
ECE532	Information Theory And Coding	3	1	0	4
ECE528	Reliability Of Electronics Communication Systems	3	1	0	4
ECE591	Seminar	0	0	0	1
ECE600	Thesis	0	0	8	8
	Total				**22**
Semester IV					
ECE525	Statistical Signal Analysis	3	1	0	4
ECE600	Research Work	0	0	16	16
	Total				**20**

M.Tech. in Computer Science & Engineering

Semester I					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
CSE521	Advanced Computer System Architecture	3	1	0	4
CSE522	Data Structures & Algorithms	3	1	1	5
CSE523	Object Oriented Analysis & Design	3	1	1	5
CSE524	Programming in Java	3	1	1	5
MATH501	Quantitative Techniques	3	1	0	4
	Total				**23**
	Semester II				
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
CSE510	Relational Data Base Management System	3	1	1	5
CSE526	Advanced Software Engineering	3	1	0	4
CSE527	Computer Communication	3	1	0	4
CSE529	Advanced Analysis & Design of Algorithms	3	1	1	5
BT-609	Research Methodology	0	0	0	0
CSE600	Synopsis	0	0	0	0
	Total				**18**
	Semester III				
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
CSE531	Advanced Programming languages	3	1	0	4
CSE532	Digital Image processing	3	1	0	4
CSE528	Compiler design	3	1	1	5
CSE533	Embedded System*	3	1	1	5
ECE531	Neural Network & Fuzzy Logic*	3	1	1	5
CSE591	Seminar	0	0	0	1
CSE600	Thesis	0	0	8	8
	Total				**27**
	Semester IV				
CSE525	Network Security	3	1	0	4
CSE600	Research Work	0	0	16	16
	Total				**20**

* Any one of the two courses

M.Sc. in Mathematics

Semester I					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
MATH521	Analysis-I	3	1	0	4
MATH522	Complex Analysis I	3	1	0	4
MATH523	Algebra- I	3	1	0	4
MATH524	Numerical Methods	3	1	0	4
MATH525	Ordinary Differential Equations	3	1	0	4
	Total				**20**
Semester II					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
MATH531	Analysis II	3	1	0	4
MATH532	Complex Analysis II	3	1	0	4
MATH533	Programing in C	3	0	1	4
MATH534	Algebra- II	3	1	0	4
MATH535	Curves and Surfaces	3	1	0	4
MATH536	Research Methodology	3	0	0	3
MATH600	Synopsis	0	0	0	0
	Total				**23**
Semester III					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
MATH551	Partial Differential Equations	3	1	0	4
MATH552	Mathematical Statistics	3	1	0	4
	Elective I	3	1	0	4
	Elective II	3	1	0	4
MATH591	Seminar	0	0	0	1
MATH600	Thesis	0	0	0	4
	Total				**21**
Semester IV					
MATH553	Discrete Mathematics	3	1	0	4
	Elective III	3	1	0	4
	Elective IV	3	1	0	4
MATH600	Thesis	0	0	0	7
MATH600	Thesis Viva	0	0	0	1
	Total				**20**

Master of Business Administration MBA (Finance)

Semester I					
Course code	Course Title	L	T	P	Credits
MBA-501	Management Principles and practices	4	0	0	4
MATH-501	Quantitative Techniques	4	0	0	4
MBA-502	Managerial Economics	4	0	0	4
MBA-503	Business Environment	4	0	0	4
CSE-551	Computer Applications	4	0	0	4
ENG-551	Managerial Communication Skills	4	0	0	4
MBA-590	Seminar	1	0	0	1
MBA-600	Master Research	0	0	5	5
	Total				**30**
Semester II					
Course code	Course Title	L	T	P	Credits
MBA-504	Managerial Accounts	4	1	0	5
MBA-505	Organizational Behaviour	4	1	0	5
MBA-506	Production and Operations Management	4	1	0	5
MBA-507	Marketing Management	4	0	0	4
MBA-508	Management Information System	4	1	0	5
MBA-591	Seminar	1	0	0	1
MBA-600	Master Research	0	0	5	5
	Total				**30**
Semester III					
Course code	Course Title	L	T	P	Credits
MATH-540	Operation Research	4	1	0	5
MBAF-551	Capital Market	4	1	0	5
MBAF -552	Financial Engineering	4	1	0	5
MBAF -553	Human Resource Management	4	0	0	4
MBAF -554	Working Capital Management	4	1	0	5
MBA-592	Seminar	1	0	0	1
MBA-600	Master Research	0	0	5	5
BT-609	Research Methodology	4	0	0	4
	Total				**34**
Semester IV					
MBAF -565	Project Management	4	1	0	5
MBAF -566	Strategic Management	4	1	0	5
MBAF -567	Financial Management	4	0	0	4
MBAF -568	International Finance	4	1	0	5
MBAF -569	Management of Financial Services	4	1	0	5
MBA-593	Seminar	1	0	0	1
MBA-600	Master Research	0	0	10	10
EDU-101	Human Values & Professional Ethics in Higher Education	2	1	0	3
	Total				**38**

Master of Business Administration MBA (HR)

Semester I					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
MBA-501	Management Principles and practices	4	0	0	4
MATH-501	Quantitative Techniques	4	0	0	4
MBA-502	Managerial Economics	4	0	0	4
MBA-503	Business Environment	4	0	0	4
CSE-551	Computer Applications	4	0	0	4
ENG-551	Managerial Communication Skills	4	0	0	4
MBA-590	Seminar	1	0	0	1
MBA-600	Master Research	0	0	5	5
	Total				**30**
Semester II					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
MBA-504	Managerial Accounts	4	1	0	5
MBA-505	Organizational Behaviour	4	1	0	5
MBA-506	Production and Operations Management	4	1	0	5
MBA-507	Marketing Management	4	0	0	4
MBA-508	Management Information System	4	1	0	5
MBA-591	Seminar	1	0	0	1
MBA-600	Master Research	0	0	5	5
	Total				**30**
Semester III					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
MATH-540	Operation Research	4	1	0	5
MBAH-551	Capital Market	4	1	0	5
MBAH-555	Legal Framework and Labour Laws	4	1	0	5
MBAH-553	Human Resource Management	4	0	0	4
MBAH-556	Economics For Human Resources	4	1	0	5
MBA-592	Seminar	1	0	0	1
MBA-600	Master Research	0	0	5	5
BT-609	Research Methodology	4	0	0	4
	Total				**34**
Semester IV					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
MBAH-565	Project Management	4	1	0	5
MBAH-566	Strategic Management	4	1	0	5
MBAH-570	Compensation management	4	1	0	5
MBAH-571	Human Resource Planning and Development	4	0	0	4
MBAH-572	Industrial Relations and Labour Policy	4	1	0	5
MBA-593	Seminar	1	0	0	1
MBA-600	Master Research	0	0	10	10
EDU-101	Human Values & Professional Ethics in Higher Education	2	1	0	3
	Total				**38**

M.A Economics

Semester I					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
ECON501	Micro Economic Theory	5	1	0	6
ECON502	Macro-Economic Theory	5	1	0	6
ECON503	History of Economic Thoughts	4	1	0	5
MATH505	Quantitative Methods	5	1	0	6
ECON590	Seminar	1	0	0	1
ECON600	Master Research	0	0	5	5
	Total				**29**

Semester II					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
ECON504	Advanced Micro Economic Theory	5	1	0	6
ECON505	Advanced Macro Economic Theory	5	1	0	6
ECON506	Money& Banking	4	1	0	5
ECON507	International Economics	5	1	0	6
ECON591	Seminar	1	0	0	1
ECON600	Master Research	0	0	5	5
	Total				**29**

Semester III					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
ECON508	Indian Economy	5	1	0	6
ECON509	Economics of Growth and Development	5	1	0	6
ECON510	Research Methods for Economics	4	1	0	5
ECON511	*options for Papers EC0-511(Any* **One** *of the following options for Papers EC0-511* (i) Agricultural Economics (ii) Industrial Economics (iii) Basic Econometrics (iv) Health Economics-I)	4	1	0	5
ECON592	Seminar	1	0	0	1
ECON600	Master Research	0	0	5	5
	Total				**28**

Semester IV					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
ECON512	Public Finance	5	1	0	6
ECON513	Advanced Economics of Growth and Development	4	1	0	5
ECON514	*Options for Papers EC0- 516(Any* **one** *of the following options for Papers EC0- 516.* Agricultural Marketing (ii) Labour Economics (iii) Advanced Econometrics (iv) Health Economics-II)	5	1	0	6
ECON593	Seminar	1	0	0	1
ECON515	Master Research	0	0	10	10
EDU101	Human Values & Professional Ethics in Higher Education	2	1	0	3
	Total				**31**

Ph.D. Chemistry

Semester-I (Choose any four including CHEM-601)					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
CHEM-601	Research Methodology	3	1	0	4
CHEM-602	Advanced Instrumental Methods of Analysis	3	1	0	4
CHEM-603	Nanomaterial's properties and application	3	1	0	4
CHEM-604	Chemistry of Organometallics	3	1	0	4
CHEM-605	Advanced Organic Synthesis	3	1	0	4
CHEM-606	Statistical Thermodynamics & ionic processes in solutions	3	1	0	4
	Total				**16**
Semester-II (Choose any three including CHEM-611)					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
CHEM-611	Seminar-I, Seminar-II	0	0	0	4
CHEM-612	Natural Product Chemistry	3	1	0	4
CHEM-613	Structure from Spectra	3	1	0	4
CHEM-614	Group Theory for Chemists	3	1	0	4
CHEM-615	Photochemistry	3	1	0	4
	Total				**12**

M.Sc. Chemistry

	Semester I				
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
CHEM501	Basic Analytical Chemistry	3	1	0	4
CHEM502	Chemistry of transition metal complexes	3	1	0	4
CHEM503	Aromaticity & Substitution reactions	3	1	0	4
CHEM504	Electro chemistry & Chemical Kinetics	3	1	0	4
CHEM505	Laboratory Work – I	0	0	8	8
	Total				**24**
	Semester II				
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
CHEM511	Kinetics of Inorganic Complexes of metal carbonyls	3	1	0	4
CHEM512	Addition & Elimination reactions	3	1	0	4
CHEM513	Physical Chemistry	3	1	0	4
CHEM514	Molecular Spectroscopy	3	1	0	4
CHEM515	Research Methodology	0	0	0	0
CHEM516	Laboratory Work – II	0	0	8	8
	Total				**24**
	Semester III				
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
CHEM551	Organic Spectroscopy	3	1	0	4
CHEM552	Solid State Chemistry	3	1	0	4
CHEM553	Major Elective I	3	1	0	4
CHEM554	Major Elective II	3	1	0	4
CHEM555	Major Elective III	3	1	0	4
CHEM556	Laboratory Work – III (Specialization wise)	0	0	8	8
CHEM600	Synopsis/Seminar	0	0	8	8
	Total				**28**
	Semester IV				
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
CHEM600	Thesis/Dissertation	0	0	0	20
	Total				**20**

Major Electives I-III (One of the following specializations to be selected)

1.	**Analytical Chemistry specializations**	
	CHEM-552(A)	Principles of Analytical Chemistry
	CHEM-553(A)	Spectrochemical Analysis
	CHEM-554(A)	Micro analytical Technique
2.	**Inorganic Chemistry specializations**	
	CHEM-552(I)	Organometallic Chemistry of Transition Metals
	CHEM-553(I)	Bio-Inorganic Chemistry
	CHEM-554(I)	Structural Methods in Inorganic Chemistry
3.	**Organic Chemistry specializations**	
	CHEM-552(O)	Application of Spectroscopy to structural Analysis
	CHEM-553(O)	Reaction Mechanisms and Stereochemistry
	CHEM-554(O)	Natural Products
4.	**Physical Chemistry specializations**	
	CHEM-552(A)	Electrochemistry
	CHEM-553(A)	Chemical Kinetics
	CHEM-554(A)	Quantum Chemistry

MPH (Master in Public Health)

Odd Semester-1
Teaching & Training Scheme (Batch: 2014-16)

Course code	Course Title	*L	*T	*P	Credit Hours/Week
PH-501	Public Health: Basic Concepts. Historical Antecedents in Social Health, Public Health and Medical Science at National & International levels.	3	0	1	4
PH-502	Environmental Health and Sustainable Development	3	0	1	4
PH-503	Basic Principles of Epidemiology and Applications of Epidemiological Studies:	2	1	1	4
PH-504	Bio-Statistical Methods and Applications	2	1	1	4
PH-505	Mental Hygiene and Substance Abuse:	3	0	1	4
PH-506	Survey & Surveillance Methods	3	0	1	4
Total	*L=Lecture; *T=Tutorial; *P=Practical	16	2	6	24
PH-518	Winter Institute Project-1: Part 1st of Internship	About 25 working days			

Even Semester-2
Teaching & Training Scheme (Batch: 2014-16)

Course code	Course Title	*L	*T	*P	Credit Hours/Week
PH-507	Primary Care; Secondary Care; Traditional Care and Practice in Public Health: Geriatric Health Care:	3	0	1	4
PH-508	Biological Basis and Bioethics in Public Health	2	1	1	4
PH-509	Health Economics, Finance and Planning in Health Care Services	2	1	1	4
PH-510	Research Methodology, Basic Computing and Computational Biology in Public Health	2	1	1	4
PH-511	Social, Psychological and Behavioural Health. Health Education and Counselling.	3	0	1	4
PH-512	Health Care Administration; IEC; HMIS; Graphics and Computer (SPSS & EpiInfo softwares): Human Resource Development & Management	3	0	1	4
PH-518	Summer Institute Project-2: Part 2nd of Internship	About 25 Working days			
Total	*L=Lecture; *T=Tutorial; *P=Practical	15	3	6	24

Odd Semester- 3
Teaching & Training Scheme (Batch: 2014-16)

Course code	Course Title	*L	*T	*P	Credit Hours/Week
PH-513	Women's Health Care, Family Planning, Infectious Diseases and National Health Programmes:	2	1	1	4
PH-514	International Health, Global Health Foundations & Organisations. Human Rights and Values.	3	0	1	4
PH-515	Children's Health and Human Nutrition; National Health and Population Policies:	2	1	1	4

PH-516	Entomology; Safe Water & Sanitation: Laboratory Practicals and Writing the Record Logbook:	2	0	2	4
PH-517	Public Health in Emergencies: Accidents & Injuries; First Aid; Occupational Health; Disaster & Conflict Management:	3	0	1	4
EDU-101	Human Values and Professional Ethics	1	1	0	2
PH-600	**Practicum:** Seminar/Symposia/Tutorials/Quiz/Assignments/ Survey for Pilot study, Synopsis Submission/Family Study/Conference	0	1	1	2
Total	***L=Lecture; *T=Tutorial; *P=Practical**	**13**	**4**	**7**	**24**
PH-518	Winter Project-3: Internship-Part 3rd	About 25 working days			

Even Semester-4
Teaching & Training Scheme(Batch: 2014-16)

Course code	Course Title	L	T	P	Credit Hours/Week
PH-518	Winter Project-4:Internship-Part 4th	About 25 working days			
PH-600	**Capstone:** ▪ Masters Research and Thesis Writing ▪ Field Visits & Survey/ Conferences/ Workshops/Symposia/Assignments ▪ Field visits & survey, Primary data collection, Presentation, analysis.	0	0	18	18
Total	***L=Lecture; *T=Tutorial; *P=Practical**				**18**

M.A. English

Semester I					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
ENG 521	Introduction to Literature	4	0	0	4
ENG 522	Introduction to Communication Skills: Theory & Practice	3	0	1	4
ENG 523	Introduction to Phonetics	3	0	1	4
ENG 524	Major Literary Movements & History of English Literature -I	4	0	0	4
	Total				**16**
Semester II					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
ENG 531	British Drama	4	0	0	4
ENG 532	Introduction to language & Professional Communication Skills	3	0	1	4
ENG 533	Grammar and Morphology of English	3	0	1	4
ENG 534	Major Literary Movements & History of English Literature -II	4	0	0	4
ENG 600	Master's Research -- I				4
	Total				**20**
Semester III					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
ENG 551	British Novel	4	0	0	4
ENG 552	Advanced Business Communication	3	0	1	4
ENG 553	British & American Poetry	4	0	0	4
ENG 554	Literary Criticism	4	0	0	4
ENG 600	Master's Research -- I				6
	Total				**22**
Semester IV					
ENG 571	Modern Literary Theory	4	0	0	4
ENG 572	Media Studies	3	0	1	4
ENG 573	Indian Writing in English	4	0	0	4
ENG 574	English Language Teaching: Approaches and Methods	3	0	1	4
ENG 600	Master's Research -- II				6
	Total				**22**

M.Sc. Food Nutrition

Course code	Course Title	L	T	P	Credits
Semester I					
NFT-501	Food Processing	3	0	0	3
NFT-502	Food Additives and Ingredients	3	0	0	3
NFT-503	Nutraceuticals and health foods	3	0	0	3
NFT-504	Food Microbiology	3	0	0	3
NFT-505	Food Quality System and Management	3	0	0	3
NFT-506	Techniques in Food Technology and Nutrition-I	0	0	3	3
	Total				**18**
Semester II					
Course code	Course Title	L	T	P	Credits
NFT-507	Enzymes in Food Processing	3	0	0	3
NFT-508	Food Analysis	0	0	2	2
NFT-509	Industrial Microbiology (Option-2)	3	0	0	3
NFT-510	Computational biology and Biostatistics	3	0	0	3
NFT-511	Food and Nutritional Biochemistry	3	0	0	3
NFT-512	Techniques in Food Technology and Nutrition-II	0	0	3	3
NFT-591	Seminar-I	0	1	0	1
	Total				**18**
Semester III					
Course code	Course Title	L	T	P	Credits
NFT-513	Biosafety, Bioethics & IPR	3	0	0	3
NFT-518	Macronutrients	2	0	0	2
NFT-519	Micronutrients	2	0	0	2
NFT-520	Life Cycle Nutrition	3	0	0	3
NFT-521	Clinical and Therapeutic Nutrition (Option-2)	3	0	0	3
NFT-522	Techniques in Food Technology and Nutrition-III	0	0	3	3
NFT-591	Seminar on Business Plan Writing-II	0	1	0	1
	Total				**17**
Semester IV					
NFT-600	Master's Research Project	0	0	0	17
	Total				**17**

M.Sc. Food Technology

Semester I					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
NFT-501	Food Processing	3	0	0	3
NFT-502	Food Additives and Ingredients	3	0	0	3
NFT-503	Nutraceuticals and health foods	3	0	0	3
NFT-504	Food Microbiology	3	0	0	3
NFT-505	Food Quality System and Management	3	0	0	3
NFT-506	Techniques in Food Technology and Nutrition-I	0	0	3	3
NFT-523	In plant Training	1	0	0	1
	Total				**19**
Semester II					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
NFT-507	Enzymes in Food Processing	3	0	0	3
NFT-508	Food Analysis	0	0	2	2
NFT-509	Industrial Microbiology (Option-2)	3	0	0	3
NFT-510	Computational biology and Biostatistics	3	0	0	3
NFT-511	Food and Nutritional Biochemistry	3	0	0	3
NFT-512	Techniques in Food Technology and Nutrition-II	0	0	3	3
NFT-591	Seminar-I	0	1	0	1
	Total				**18**
Semester III					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
NFT-513	Biosafety, Bioethics & IPR	3	0	0	3
NFT-514	Technology of Fruits and Vegetables (Option-1)	3	0	0	3
NFT-515	Technology of cereals, pulses and oilseeds (Option-1)	3	0	0	3
NFT-516	Food Packaging	3	0	0	3
NFT-517	Techniques in Food Technology and Nutrition-III	0	0	3	3
NFT-591	Seminar on Business Plan Writing-II	0	1	0	1
	Total				**16**
Semester IV					
NFT-600	Master's Research Project	0	0	0	17
	Total				**17**

Ph.D. Chemistry

Course code	Course Title	L	T	P	Credits
Semester-I (Choose any four including CHEM-601)					
CHEM-601	Research Methodology	3	1	0	4
CHEM-602	Advanced Instrumental Methods of Analysis	3	1	0	4
CHEM-603	Nanomaterial's properties and application	3	1	0	4
CHEM-604	Chemistry of Organometallics	3	1	0	4
CHEM-605	Advanced Organic Synthesis	3	1	0	4
CHEM-606	Statistical Thermodynamics & ionic processes in solutions	3	1	0	4
	Total				**16**
Semester-II (Choose any three including CHEM-611)					
Course code	Course Title	L	T	P	Credits
CHEM-611	Seminar-I, Seminar-II	0	0		4
CHEM-612	Natural Product Chemistry	3	1		4
CHEM-613	Structure from Spectra	3	1		4
CHEM-614	Group Theory for Chemists	3	1		4
CHEM-615	Photochemistry	3	1		4
	Total				**12**

M.Sc. Physics

Semester I					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
PHY501	Mathematical Physics	3	1	0	4
PHY502	Classical Mechanics	3	1	0	4
PHY503	Quantum Mechanics-I	3	1	0	4
PHY504	Electronics-I	3	1	0	4
PHY505	Laboratory-I	0	0	6	3
PHY506	Computational Physics Lab-I	0	0	6	3
	Total				**22**
Semester II					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
PHY511	Electrodynamics	3	1	0	4
PHY512	Condensed Matter Physics- I	3	1	0	4
PHY513	Nano Physics	3	1	0	4
PHY514	Electronics- II	3	1	0	4
PHY515	Laboratory-II	0	0	6	3
PHY516	Computational Physics Lab-II	0	0	6	3
	Total				**22**
Semester III					
Course code	**Course Title**	**L**	**T**	**P**	**Credits**
PHY521	Condensed Matter Physics-II	3	1	0	4
PHY522	Nuclear & Particle Physics	3	1	0	4
PHY523	Quantum mechanics -II	3	1	0	4
PHY524	Opto-Electronics	3	1	0	4
PHY525	Laboratory-III	0	0	6	3
PHY601	Research Methodology	3	1	0	4
	Total				**23**
Semester IV					
PHY531	Statistical Physics	3	1	0	4
PHY532	Elective Papers one of the following (a) Mesoscopic Physics (b) Advanced Nuclear & Particle Astrophysics (c) Material Science (d) Advanced High Energy Physics	3	1	0	4
PHY533	Elective Papers one of the following (a) Advanced Nuclear Physics (b) Nuclear Technology (c) Advanced Computational Physics (d) Advanced Quantum Mechanics	3	1	0	4
PHY534	Project	0	0	24	12
	Total				**24**