

Annexure – I*

- (i) Following is the list of courses wherein the main papers (Hons.) and the specified allied papers, which can be offered to students have been compiled.
- (ii) Both the Allied subject papers can be offered in each semester (except Management Studies).
- (iii) For courses wherever practicals are required, the syllabi of erstwhile DC-I(FYUP) practical course will be followed.

1. ANTHROPOLOGY

Course	Semester	Main Subject Paper	Allied Course Papers
B.Sc. (Hons.) Anthropology	III	Anthropological Genetics	(i) Evolutionary Biology (Zoology) (ii) Human Physiology (Zoology)
		Anthropological Theories of Society and Culture	
		Kinship, Family, Marriage and Gender	
	IV	Archaeological Anthropology of India and Europe	
		Tribes and Peasants in India	
		Anthropology of Religion, Politics, and Economy	

2. BIO-CHEMISTRY

Course	Semester	Main Subject Paper	Allied Course Papers
B.Sc. (Hons.) Biochemistry	III	Metabolism of Carbohydrates and Lipids	(i) Conceptual Organic Chemistry (Chemistry) (ii) Thermodynamics, Equilibrium in Chemistry and Electrochemistry (Chemistry)
		Membrane Biology and Bioenergetics	
		Gene Organization and Replication and Repair	
	IV	Metabolism of Amino Acids and Nucleotides	
		Human Physiology	
		Gene expression and regulation	

3. BIO-MEDICAL SCIENCE (ACBR)

Course	Semester	Main Subject Paper	Allied Course Papers
B.Sc. (Hons.) Biomedical Sciences	III	Protein Chemistry and Function	(i) Conceptual Organic Chemistry (Chemistry) (ii) Foundations of Developmental Biology (Zoology)
		Human Physiology and Anatomy-II	
		Genome Organization and	

		Function-I	
	IV	Human Pathology	
		Medical Biochemistry	
		Medical Microbiology	

4. BOTANY

Course	Semester	Main Subject Paper	Allied Course Papers
B.Sc. (Hons.) Botany	III	Archegoniates	(i) Molecules of Life (Chemistry) (ii) Evolutionary Biology (Zoology)
		Morphology and Anatomy of Angiosperm	
		Plant Resource Utilization	
	IV	Plant Systematics	
		Reproductive Biology of Angiosperm	
		Concept of Genetics	

5. CHEMISTRY

Course	Semester	Main Subject Paper	Allied Course Papers
B.Sc. (Hons.) Chemistry	III	Theory: Section A- Inorganic: Principles of Metallurgy and Chemistry of s-block Element Section B- Physical: Chemical and Ionic Equilibria	(i) Calculus (Mathematics) (ii) Electricity & Magnetism (Physics & Astrophysics)
		Theory: Organic: Aromatic Hydrocarbons, Halogenated Hydrocarbons, Alcohols and Phenols	
		Theory: Section A- Organic: Carbonyl Compounds and Carboxylic Acids Section B- Physical: Chemical Kinetics and Catalysis	
	IV	Theory: Inorganic: Chemistry of p-block Elements	
		Theory: Organic: Compounds, Containing Active Methylene, Nitrogen Containing Functional Groups; Polynuclear Hydrocarbons and Heterocycles	
		Theory: Physical: Electro-chemistry	

6. COMMERCE

Course	Semester	Main Subject Paper	Allied Course Papers
Commerce	III	Corporate Laws	(i) Macroeconomic Theory and Policy (Economics) (ii) Indian Economy (Economics)
		Corporate Accounting	
		Principles of Marketing	
	IV	Corporate Governance and Social Responsibility	
		Business Economics	
		Cost Accounting	

7. GEOLOGY

Course	Semester	Main Subject Paper	Allied Course Papers
B.Sc. (Hons.) Geology	III	Sedimentology and Principles of stratigraphy	(i) Calculus (Mathematics) (ii) Mechanics (Physics)
		Paleontology	
		Geomorphology	
	IV	Metamorphic Petrology	
		Field Work-I	
		Stratigraphy of India	

8. HOME SCIENCE

Course	Semester	Main Subject Paper	Allied Course Papers#
B.Sc. (H) Home Science	III	Fabric and Apparel Science	<u>Choose any one paper from the following streams:</u> 1. Nutritional Biochemistry (Food & Nutrition) 2. Early Childhood Care and Education (Human Development & Childhood Studies) 3. Human Resource Management (Resource Management & Design Application) 4. Program Design and Evaluation (Development Communication & Extension) 5. Apparel Design and Concepts (Fabric & Apparel Science)
		Nutrition for Adults and Elderly	
		Human Development: A topical Approach	
	IV	Communication Systems and Mass media	
		Personal Finance and Consumer Studies	
	Life Science	<u>Choose any one paper from the following streams:</u> 1. Therapeutic Nutrition (Food & Nutrition) 2. Child Rights, Diversity and Social Action (Human Development & Childhood Studies)	

			3. Interior Design and Decoration (Resource Management & Design Application)
			4. Gender and Society (Development Communication & Extension)
			5. Textile Science (Fabric & Apparel Science)

Once a paper selected in any 5 streams of the above mentioned by the student in Semester –III, he/she has to study same stream paper in Semester- IV.

9. JOURNALISM

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) Journalism	III	New Media	(i) Introduction to Politics (Political Science) (ii) Women, Power and Politics (Political Science)
		Integrated Marketing Communications	
		Reporting and Editing for Broadcast	
	IV	Media Ethics and the Law	
		History and Growth of Media in India	
		Development Communication	

10. MANAGEMENT STUDIES

Course	Semester	Main Subject Paper
Bachelor of Management Studies (Hons.)	III	Human Resource Management
		Managerial Economics
		Operations Research
		Corporate Finance
	IV	Research Methodology
		International Trade and Finance
Macro Economics and Global Environment		
	Legal Environment for Business	

11. MATHEMATICS

Course	Semester	Main Subject Paper	Allied Course Papers*
B.Sc. (Hons.) Mathematics	III	Algebra-II (Group Theory-I)	(i) Inventory and Production Management (Operational Research)* (ii) Network Models and Project Scheduling
		Analysis-II (Real Functions)	
		Numerical Methods	
	IV	Algebra-III (Ring Theory & Linear	

		Algebra-I)	(Operational Research)*
		Analysis-III (Riemann Integration & Series of Functions	
		Calculus-II (Multivariate Calculus)	

**The College may offer any other two allied papers amongst the listed allied papers in Annexure-I/II.*

12. MICRO-BIOLOGY

Course	Semester	Main Subject Paper	Allied Course Papers
B.Sc. (Hons.) Microbiology	III	Microbial Physiology & Metabolism	(i) Conceptual Organic Chemistry (Chemistry) (ii) Food Microbiology and Food Safety (Food Technology)
		Virology	
		Concepts of Genetics	
IV	Microbial Genetics and Genomics		
	Cell Biology		
	Molecular Biology		

13. PHYSICAL EDUCATION & SPORTS SCIENCES

Course	Semester	Main Subject Paper	Allied Course Papers
B.Sc. Physical Education, Health Education & Sports	III	Methods of Teaching in Physical Education	(i) Human Nutrition (Home Science) (ii) Psychology for Healthy Living (Psychology)
		Health Education First Aid & Rehabilitation	
		Gymnastics	
	IV	Game of Specialization	
		Fundamental of Sports Sociology	
		Physiology of Exercise	

14. PHYSICS

Course	Semester	Main Subject Paper	Allied Course Papers
B.Sc. (Hons.) Physics	III	Mathematical Physics-II	(i) Real Analysis (Mathematics) (ii) Chemicals Bonding (Chemistry)
		Digital Systems & Applications	
		Waves and Optics	
IV	Elements of Modern Physics		
	Mathematical Physics-III		
	Analog Systems and Applications		

15. SOCIAL WORK

Course	Semester	Main Subject Paper	Allied Course Papers
Social Work	III	Understanding psychology for social work	(i) Individual and Society (English) (ii) Cultural diversity in India (English)
		Working with Individuals	
		Working with Groups	
IV	Social psychology for social work		
	Communication for development		
	Social deviance and social problem		

16. STATISTICS

Course	Semester	Main Subject Paper	Allied Course Papers
B.Sc. (Hons.) Statistics	III	Probability and Statistical Methods-III	(i) Inventory and Production Management (Operational Research) (ii) Optimization Techniques(Operational Research)
		Operations Research	
		Survey Sampling	
IV	Real Analysis and Numerical Analysis		
	Probability and Statistical Methods-IV		
	Statistical Computing using C		

17. ZOOLOGY

Course	Semester	Main Subject Paper	Allied Course Papers
B.Sc. (Hons.) Zoology	III	Diversity & Distribution of Chordata	(i) Conceptual Organic Chemistry (Chemistry) (ii) Economic Botany and Plant Biotechnology (Botany)
		Fundamentals of Biochemistry	
		Physiology: Controlling & Coordinating Systems	
IV	Physiology: Life Sustaining Systems		
	Comparative Anatomy of Vertebrates		
	Biochemistry of Metabolic Processes		

B.Tech. Courses:**18. FOOD TECHNOLOGY (B. Tech.)**

Course	Semester	Main Subject Paper	Allied Course Papers
Food Technology	III	Bakery and Confectionary Technology	(i) Conceptual Organic Chemistry (Chemistry) (ii) Molecules of Life (Chemistry)
		Technology of Meat, Milk, Fish and Egg	
		Technology of Cereals, Pulses and Oilseeds	
	IV	Food Chemistry	
		Food Quality and Sensory Evaluation	
		Processing of Animal foods	

19. ELECTRONICS (B. Tech.)

Course	Semester	Main Subject Paper	Allied Course Papers
Electronics	III	Analog Electronics-I	(i) Chemical Bonding (Chemistry) (ii) Electricity and Magnetism (Physics)
		Digital System Design	
		C++ & Data Structures	
	IV	Analog Electronics-II	
		Electronic Instrumentation	
		Signals & Systems	

20. INSTRUMENTATION (B. Tech.)

Course	Semester	Main Subject Paper	Allied Course Papers
Instrumentation	III	Industrial Instrumentation	(i) Mechanics (Physics) (ii) Conceptual Organic Chemistry (Chemistry)
		Digital Electronics	
		Quality Control Techniques	
	IV	Electrical Instruments	
		Linear Integrated Circuits	
		Measurement Science & Techniques	

21. POLYMER SCIENCE (B. Tech.)

Course	Semester	Main Subject Paper	Allied Course Papers
Polymer Science	III	Polymer Rheology	(i) Differential Equation and Mathematical Modeling (Mathematics) (ii) Thermal Physics (Physics)
		Polymer Additives	
		Polymer Characterization	
	IV	Polymer Processing & Mold Design	
		Polymer Testing	
		Polymer Blends and Composites	

22. COMPUTER SCIENCE (B. Tech.)

Course	Semester	Main Subject Paper	Allied Course Papers
Computer Science (B. Tech.)	III	Discrete Structure	(i) Introduction to Operational Research & Linear Programming (Operational Research) (ii) Numerical Methods (Mathematics)
		Operating System	
		Data Communication & Computer Networks	
	IV	Database Systems	
		Design and Analysis of Algorithms	
		Software Engineering	

***Disclaimer: Subject to Academic Council and Executive Council Minutes (dated 19th July 2014), C/o Council Branch, University of Delhi.**