

UNIVERSITY OF DELHI

No. CNC-II/093/101/2014
Delhi, the 17th September, 2014

NOTIFICATION

The following Amendments to Ordinances and Appendices to Ordinances of the University passed by the Executive Council at its meeting held on 19th July, 2014 are notified for information of all concerned:

- 1. Amendments to Appendix II to Ordinance V(2) of the Ordinances of the University related to restructuring of the erstwhile Four Year Undergraduate Programme 2013-2014 to Three Year Undergraduate Programme for the students already enrolled in the 2013-2014. All other relevant Ordinances shall stand amended accordingly. (Page No. 285 of University Calendar Volume II, 1989) (E.C. 19.7.2014)**

Replace the existing course contents of the 3rd, 4th, 5th, 6th, 7th and 8th semesters of the erstwhile Four Year Undergraduate Programme with the following:

- 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.
- Both the Allied subject papers can be offered in each semester (except Management Studies).
- 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) Microeconomic Theory and Applications (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)	III	Fabric and Apparel	Choose any one paper from the following

Home Science		Science	streams: 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	Choose any one paper from the following streams: 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 (Operational Research)*
		Analysis-II (Real Functions)	
		Numerical Methods	
IV	Algebra-III (Ring Theory & Linear Algebra-I)		
	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	
		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	

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- (iv) Following is the list of courses wherein the main papers (Hons.) have been listed. The allied papers to be offered by other department can be chosen from the list against each department.
- (v) The colleges may offer only one allied subject paper in each semester if it decides to offer two allied papers of the same subject or may offer two listed allied papers from the two different allied subjects in each semester.
- (vi) For courses wherever practicals are required, the syllabi of erstwhile DC-I (FYUP) practical course will be followed.

1. ARABIC

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons) Arabic	III	Modern Arabic Prose	Arabic Text, Grammar & Translation-I Or Arabic Text, Grammar & Translation-II
		Modern Arabic Poetry	
		Intermediate Grammar & Translation	
	IV	Classical Arabic Prose	
		Classical Arabic Poetry	
		Advanced Grammar & Translation	

2. BENGALI

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) Bengali	III	Unish Shataker Bangla Sahityer Itihas (History of Bengali Literature: 19th Century)	Bengali Language and Literature Or Bengali Literature and Film
		Natak (Plays)	
		Bish-Shataker Bangla Sahityer Itihas (History of Bengali Literature: 20th century)	
	IV	Sahityatattwa, Chhando O Alankar (Theories of Literature, Prosody & Rhetoric)	
		Kobita (Poetry)	
		Bangla Sahitya: (8th- 18th century)	

3. ECONOMICS

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) Economics	III	Statistical Methods in Economics-II	Introductory Economics Or Development Economics
		Microeconomics-I	
		Macroeconomics-I	
	IV	Introductory Econometrics	
		Microeconomics-II	
		Macroeconomics-II	

4. ENGLISH

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) English	III	British Poetry and Drama 17 th and 18 th Centuries	Individual and Society Or Cultural Diversity in India
		American Literature	
		British Literature 18 th Century	
	IV	British Romantic Literature	
		British Literature 19 th Century	
		Literary Theory	

5. FRENCH

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) French	III	Language in Context: Developing Reading and Writing Skills -III	Introduction to Language -1 Or Introduction to Language - 2
		Language in Context: Developing Listening and	

		Speaking Skills- III	
		Introduction to Literature -I	
	IV	Language in Context: Developing Reading and Writing Skills- IV	
		Language in Context: Developing Listening and Speaking Skills- IV	
		Introduction to Literature -II	

6. GEOGRAPHY

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) Geography	III	Resource Geography	Environmental Geography Or Geography of India
		Thematic Cartography	
		Agricultural Geography	
IV	Environmental Geography		
	Geography of Settlements		
	Regional Planning		

7. GERMAN

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) German	III	Language in Context: Developing Reading and Writing Skills- III	Introduction to Language -1 Or Introduction to Language - 2
		Language in Context: Developing Listening and Speaking Skills- III	
		Introduction to Literature -I	
IV	Language in Context: Developing Reading and Writing Skills- IV		
	Language in Context: Developing Listening and Speaking Skills- IV		
	Introduction to Literature -II		

8. हिन्दी

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) हिन्दी	III	रीतिकालीन काव्य	आधुनिक कविता or हिन्दी कथा साहित्य (उपन्यास और
		हिन्दी साहित्य का इतिहास (आधुनिक काल)	

		हिन्दी निबंध एवं अन्य गद्य विधाएँ	कहानी)
	IV	आधुनिक हिन्दी कविता -1	
		भाषा विज्ञान और हिन्दी भाषा	
		हिन्दी नाटक एवं एकांकी	

9. HINDI PATRAKARITA

Course	Semester	Main Subject Paper	Allied Course Papers
हिन्दी पत्रकारिता एवं जनसंचार	III	सूचना-प्रौद्योगिकी और इंटरनेट	रिपोर्टिंग, लेखन और संपादन or रेडियो, टेलीविज़न और सिनेमा
		संपादन एवं रिपोर्टिंग	
		रेडियो	
	IV	माध्यम-कानून और आचार-संहिता	
		विकासमूलक पत्रकारिता	
		टेलीविज़न	

10. HISTORY

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) History	III	History of India (c. 750-1200)	History of India- I (up to c.300 B.C)
		Rise of the Modern World – I	or
		Modern East Asia – I	History of India- II (c.300 B.C to eighth century A.D.)
	IV	History of India (c.1200 – 1520s)	
		Rise of the Modern World – II	
		Modern East Asia – II	

11. ITALIAN

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) Italian	III	Language in Context: Developing Reading and Writing Skills- III	Introduction to Language -1 Or Introduction to Language - 2
		Language in Context: Developing Listening and Speaking Skills- III	

		Introduction to Literature -I	
	IV	Language in Context: Developing Reading and Writing Skills- IV	
		Language in Context: Developing Listening and Speaking Skills- IV	
		Introduction to Literature -II	

12. MUSIC

Course	Semester	Main Subject Paper	Allied Course Papers
B.A.(Hons.) Hindustani Music	III	Indian Musicology (Theory)	To be decided by the College from amongst the listed Allied Course papers.
		Stage Performance (Practical-III)	
		Viva-Voce (Practical-IV)	
	IV	Study of Hindustani and Karnatak Music (Theory)	
		Stage Performance (Practical-V)	
		Viva-Voce (Practical-VI)	

Course	Semester	Main Subject Paper	Allied Course Papers
B.A.(Hons.) Karnatak Music	III	Indian Musicology	To be decided by the College from amongst the listed Allied Course papers.
		Stage Performance (Practical-III)	
		Viva-voce (Practical-IV)	
	IV	Indian Music-I	
		Stage Performance (Practical-V)	
		Viva-voce (Practical-VI)	

Course	Semester	Main Subject Paper	Allied Course Papers
B.A.(Hons.) Percussion Music	III	Indian Musicology	To be decided by the College from amongst the listed Allied Course papers.
		Stage Performance (Practical-III)	
		Viva-Voce (Practical-IV)	
	IV	Study of Hindustani Tala System	
		Stage Performance (Practical-V)	
		Viva-voce (Practical-VI)	

13. PERSIAN

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons) Persian	III	Development of Translation & Communication Skills	Urdu Language & Literature- I Or Classical Urdu Prose
		Composite Culture in Persian Literature	
		Literary Forms & Rhetoric in Persian	
	IV	Classical Persian Prose	
		Classical Persian Poetry	
		Classical Indo-Persian Prose	

14. PHILOSOPHY

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons) Philosophy	III	Logic II	Deductive and Inductive Logic Or Ethics
		Metaphysics & Epistemology	
		Social & Political Philosophy	
	IV	Indian Philosophy II	
		Ethics II	
		Philosophical Classics	

15. POLITICAL SCIENCE

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) Political Science	III	Constitutional Democracy and Government in India	Understanding Ambedkar Or Gandhi and the Contemporary World
		Introduction to Comparative Government and Politics	
		Perspective on International Relations	
	IV	Political Processes in India	
		Political Institutions and Processes in Comparative perspective	
		Global Politics	

16. PSYCHOLOGY

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) Psychology	III	Understanding Social Relations (Theory + Practical)	Understanding Psychology Or Youth Psychology
		Research Methods & Data	

		Processing (Theory + Practical)	
		Development of Psychological Thought	
	IV	Applied Social Psychology (Theory + Practical)	
		Understanding Psychological Disorders (Theory + Practical)	
		Psychometry (Theory + Practical)	

17. PUNJABI

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) Punjabi	III	Punjabi One-Act Play and Theatre	Modern Punjabi Poetry, Prose and Functional Punjabi Or Punjabi Story, Sufi Poetry and Functional Punjabi
		Folklore and Folk Literature	
		Beer-Kav	
IV	Punjabi Prose		
	Punjabi Travelogue Literature		
	Punjabi Auto-Biography and Life Sketch		

18. SANSKRIT

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) Sanskrit	III	Sanskrit Literature (Drama)	Aesthetics and Indian Theatre Or Social Issues and Economic Institutions
		Critical Survey of Sanskrit Literature (Drama, Prose & Modern Literature)	
		Self-Management in Gita	
IV	Proficiency in Sanskrit Language (Case, Compound and Methodology of Panini)		
	Sanskrit Literature (Drama and Modern Poetry)		
	Indian Epigraphy Palaeography & Chronology		

19. SOCIOLOGY

Course	Semester	Main Subject Paper	Allied Course Papers
B.A.(Hons.) Sociology	III	Sociology of Religion	Introducing Sociology Or Sociology of Contemporary India
		Sociology of India-II	
		Political sociology	

	IV	Sociological Thinkers-I	
		Sociology of Kinship	
		Environmental Sociology	

20. SPANISH

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) Spanish	III	Language in Context: Developing Reading and Writing Skills- III	Introduction to Language -1 Or Introduction to Language - 2
		Language in Context: Developing Listening and Speaking Skills- III	
		Introduction to Literature -I	
	IV	Language in Context: Developing Reading and Writing Skills- IV	
		Language in Context: Developing Listening and Speaking Skills -IV	
		Introduction to Literature -II	

21. URDU

Course	Semester	Main Subject Paper	Allied Course Papers
B.A. (Hons.) Urdu	III	Urdu Zaban O Adab Ki Tareekh	Urdu Language & Literature-I Or Urdu Language & Literature-II
		Daastan	
		Study of Iqbal	
	IV	Urdu Adab main Tanz-o-Mizah	
		Urdu Afsana	
		Special Study of Urdu Ghazal	

22. Mathematics (Allied Courses)

Course	Semester	Allied Course Papers
B.Sc. (Hons.) Mathematics	III & IV	Calculus Or Linear Algebra

23. Computer Science (Allied Courses)

Course	Semester	Allied Course Papers
Computer Science (B. Tech.)	III & IV	Fundamentals of Computer Systems Or Programming Fundamentals and Data Structure

- (i) Following is the list of courses wherein the main papers (Hons.), which can be offered to students have been compiled (except Management Studies).

1. ANTHROPOLOGY

Course	Semester	Main Subject Paper
B.Sc. (Hons.) Anthropology	V	Biodiversity and Indigenous Knowledge: Anthropological Perspectives
		Human Growth and Adaptation
		Anthropology of India
		Human Ecology: Social and Cultural Dimensions
	VI	Anthropology of Population Dynamics
		Genomic Diversity in Human Populations
		Anthropology in Practice
		Dissertation based on fieldwork

2. ARABIC

Course	Semester	Main Subject Paper
B.A. (Hons) Arabic	V	Arabic Prose & Poetry and Oral-I
		History of Arabic Language & Literature-I
		Composition & Interpretation
		Introduction to the Arab World Composition & Interpretation
	VI	Arabic Prose- Poetry & Oral -II
		History of Arabic Language & Literature-II
		Communication Skills
		Precise & Press Report Writing

3. BENGALI

Course	Semester	Main Subject Paper
B.A. (Hons.) Bengali	V	Bangla Upanyas Paathh (Reading Bengali Novels)
		Bangla Natak Paathh (Reading Bengali Plays)
		Rabindranaath Thakur
		Rabindra Parabarti Bangla Kobita
	VI	Bangla Gadya (Bengali Prose)
		Bhashatattwa (Linguistics)
		Prabasi Sahitya (Diaspora Literature)
		Bangla Chhotogalpo Path (Reading Bengali Short Stories)

4. BIOCHEMISTRY

Course	Semester	Main Subject Paper	
B.Sc. (Hons.) Biochemistry	V	Hormones Biochemistry and Function	
		Genetic Engineering and Biotechnology	
		Molecular basis of complex human diseases	
		Techniques for Cellular and Molecular Biology Research	
	VI	Concepts of Genetics	
		Immunology	
		Molecular basis of infectious diseases	
		Advanced Techniques and Technologies	

5. BIOMEDICAL SCIENCE

Course	Semester	Main Subject Paper	
B.Sc. Biomedical Science	V	Introduction to Biopharmacology and Pharmacokinetics	
		Medicinal Chemistry	
		Biophysics	
		Immunobiology	
	VI	Medical Biotechnology	
		Toxicology	
		Genome Organization and Function-II	
		Computational Biology and Drug Design	

6. BOTANY

Course	Semester	Main Subject Paper	
B.Sc. (Hons.)Botany	V	Ecology and Phytogeography	
		Plant Physiology	
		Fundamentals of Molecular Biology	
		Analytical Techniques in Plant Science	
	VI	Plant Metabolism	
		Advanced Cell and Molecular Biology	
		Plant Biotechnology	
		Functional Plant Biology	

7. CHEMISTRY

Course	Semester	Main Subject Paper
B.Sc. (Hons) Chemistry	V	Theory Inorganic: d-Block Elements, Coordination Chemistry, Lanthanides & Actinides
		Practical Inorganic: Gravimetric Analysis and Inorganic Preparation
		Theory Organic: Carbohydrates, Spectroscopy and Dyes
		Practical Organic: Qualitative Analysis, Preparation and use of IR and NMR
		Theory Physical: Phase Equilibria & Binary Solutions
		Practical Physical: Determination of Critical Solution and Phase Equilibria
		Theory Section A-Inorganic: Reactions Rates & Mechanism
		Section B-Organic: Pharmaceuticals, Natural Products and Polymers
		Practical Section A-Inorganic: Preparation of selected Inorganic Compounds and use of spectroscopic technique
		Section B-Organic: Extraction of Natural Products, Synthesis of Selected Drugs and Polymers
	VI	Theory Inorganic: Organometallic, Bio-Inorganic chemistry
		Practical Inorganic: Qualitative Semi micro analysis
		Theory Physical: Quantum Chemistry, Photochemistry and Surface Chemistry
		Practical Physical: Molecular Modeling
		Theory Section A-Inorganic: Chemistry of Inorganic Solids, Nanomaterials
		Section B-Physical: Molecular Spectroscopy
		Practical Section A-Inorganic: Determination of Cation Exchange and Preparation of newer materials
		Section B-Physical: UV-Visible spectroscopy, Colourimetry and Adsorption
		Theory Organic: Chemistry of Biomolecules
		Practical Organic: Isolation and Estimation of Selected Biomolecules and preparation of Organic Compounds

8. COMMERCE

Course	Semester	Main Subject Paper
Commerce	V	Industrial Laws
		Organizational behaviour
		Financial Management
		Management Accounting
	VI	Security Analysis and Portfolio Management
		Income Tax Law and Practice
		Foreign Exchange Management

		Advertising and Brand Management
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9. ECONOMICS

Course	Semester	Main Subject Paper
B.A (Hons) Economics	V	Indian Economic Development: Historical Perspectives and current issues-I
		Development Theory and Experience -I
		Political Economy
		Public Economics
	VI	Indian Economic Development: Historical Perspectives and Current Issues-II
		Development Theory and Experience-II
		International Economics
		Money and Financial Markets

10. ENGLISH

Course	Semester	Main Subject Paper
B.A (Hons) English	V	Indian Classical Literature
		British Literature: The Early 20 th Century
		Modern European Drama
		Postcolonial Literatures
	VI	Modern Indian Writing in English Translation
		British Literature after the 1960s
		Nineteenth Century European Realism
		Women's Writing

11. FRENCH

Course	Semester	Main Subject Paper
B.A. (Hons.) French	V	Language in Context: Developing Reading and Writing Skills -V
		Language in Context: Developing Listening and Speaking Skills -V
		Reading Literature- 1
		Cultural History
	VI	Language in Context: Developing Reading and Writing Skills -VI
		Language in Context: Developing Listening and Speaking Skills -VI
		Reading Literature -2
		Introduction to Foreign Language Teaching: Theory and Practical

12. GEOGRAPHY

Course	Semester	Main Subject Paper
B.A (Hons) Geography	V	Statistical Methods in Geography
		Geography of Development
		Remote Sensing (Practical)
		Urban Geography (Earlier Code:801)
	VI	Geography of India
		Evolution of Geographical Thought
		Geographical Information Systems (Practical)
		Political Geography (Earlier Code: 802)

13. GEOLOGY

Course	Semester	Main Subject Paper
B.Sc (Hons) Geology	V	Hydrogeology
		Geophysics
		Remote Sensing & GIS
		Earth and Climate
	VI	Economic Geology
		Engineering Geology
		Field Work-II
		Environmental Geosciences

14. GERMAN

Course	Semester	Main Subject Paper
B.A. (Hons.) German	V	Language in Context: Developing Reading and Writing Skills -V
		Language in Context: Developing Listening and Speaking Skills -V
		Reading Literature- 1
		Cultural History
	VI	Language in Context: Developing Reading and Writing Skills -VI
		Language in Context: Developing Listening and Speaking Skills -VI
		Reading Literature -2
		Introduction to Foreign Language Teaching: Theory and Practical

15. ITALIAN

Course	Semester	Main Subject Paper
B.A. (Hons.) Italian	V	Language in Context: Developing Reading and Writing Skills -V
		Language in Context: Developing Listening and Speaking Skills -V
		Reading Literature- 1
		Cultural History
	VI	Language in Context: Developing Reading and Writing Skills -VI
		Language in Context: Developing Listening and Speaking Skills -VI
		Reading Literature -2
		Introduction to Foreign Language Teaching: Theory and Practical

16. HINDI

Course	Semester	Main Subject Paper
हिन्दी	V	साहित्य-चिंतन-1
		आधुनिक हिंदी कविता-2
		हिंदी पत्रकारिता: प्रिंट मीडिया
		लोक-साहित्य
	VI	साहित्य-चिंतन-2
		भारतीय और विश्व-साहित्य
		इलेक्ट्रॉनिक मीडिया और हिंदी सिनेमा
		अस्मितामूलक विमर्श और हिंदी साहित्य

17. B.A. (Hons.) HINDI PATRAKARITA

Course	Semester	Main Subject Paper
हिन्दी पत्रकारिता एवं जनसंचार	V	जनसंपर्क
		सिनेमा
		माध्यम-प्रबंधन और पत्रकारिता
		समकालीन भारत, विचार और राजनीति
	VI	विज्ञापन
		नव-उदारवाद और न्यू मीडिया
		भारतीय संस्कृति, साहित्य और हिन्दी मीडिया



अंतर्राष्ट्रीय परिदृश्य और हिन्दी मीडिया

18. HISTORY

Course	Semester	Main Subject Paper
B.A. (Hons.) History	V	History of India (c.1520-1600)
		History of India (c.1750s-1880s)
		History of Modern Europe- I
		Issues in Contemporary World History
	VI	History of India (c.1600s-1750s)
		History of India (c.1800-1940s)
		Making of Contemporary India
		History of Modern Europe- II

19. HOME SCIENCE

Course	Semester	Main Subject Paper
B.Sc. (H) Home Science	V	Indian Textile Heritage
		Nutrition for children and Adolescents
		Physical Sciences
		Issues and Concerns in Sociology and Psychology
	VI	Fashion Design Development
		Space Planning and Design
		Participatory Development and Training
		Development in Adolescence and Adulthood

20. JOURNALISM

Course	Semester	Main Subject Paper
B.A. (Hons.) Journalism	V	Global Politics and the Media
		Media Industry and Management
		Advanced Broadcast Media
		Media and Communication Research
	VI	Introduction to Cinema Studies
		Advanced New Media
		Media and Society
		Media Trends: Challenges and Issues



21. MANAGEMENT STUDIES

Course	Semester	Main Subject Paper	Elective Subjects#
Bachelor of Management Studies (Hons.)	V		Students will be required to make a choice of One Area from the following for the purpose of Elective Subjects:
		<ol style="list-style-type: none"> 1. Operations Management 2. Tax Planning for Business 	<p>Finance:</p> <ol style="list-style-type: none"> 1. Management of Financial Institutions 2. Corporate Analysis & Valuation <p>Marketing:</p> <ol style="list-style-type: none"> 1. Consumer Behaviour 2. Integrated Marketing Communication <p>Human Resource Management:</p> <ol style="list-style-type: none"> 1. Training Management & Development 2. Management of Industrial Relations <p>Management of Global Business:</p> <ol style="list-style-type: none"> 1. International Accounting & Reporting System 2. Trans-National & Cross Cultural Marketing <p>Management of Services:</p> <ol style="list-style-type: none"> 1. Service Management 2. Marketing of Services <p>Tourism Management:</p> <ol style="list-style-type: none"> 1. Concepts & Impact of Tourism 2. Tourism Marketing
	VI		Students will be required to make a choice of same Area taken in the Semester-V from the following:
		<ol style="list-style-type: none"> 1. Corporate Strategy 2. Research Project 	<p>Finance:</p> <ol style="list-style-type: none"> 1. Financial Modelling & Derivatives 2. Behavioural Finance <p>Marketing:</p> <ol style="list-style-type: none"> 1. Sales & Distribution Management 2. Retail Management <p>Human Resource Management:</p> <ol style="list-style-type: none"> 1. Performance & Compensation Management Systems 2. International Human Resource Management <p>Management of Global Business:</p> <ol style="list-style-type: none"> 1. International Supply Chain Management 2. Multinational Business Finance

			<p>Management of Services:</p> <ol style="list-style-type: none"> 1. Management of Insurance Services 2. Management of Information Technology enabled services <p>Tourism Management:</p> <ol style="list-style-type: none"> 1. Tourism & Hospitality Management 2. Travel Agency, Tour Operations & Business Tourism
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Note:# Students will be required choose Two Elective Papers one area in Semester-V and continue the same area in Semester-VI.

22. MATHEMATICS

Course	Semester	Main Subject Paper
Mathematics	V	Algebra- IV (Group Theory -II)
		Analysis-IV (Metric Spaces)
		Differential Equations-II (P.D.E. & System of ODE)
		Probability & Statistics
	VI	Algebra -V(Ring Theory & Linear Algebra -II)
		Analysis-V (Complex Analysis)
		Differential Equations -III
		Calculus of Variations & Linear Programming

23. MICROBIOLOGY

Course	Semester	Main Subject Paper
B.Sc (Hons) Microbiology	V	Immunology
		Industrial Microbiology
		Recombinant DNA Technology
		Environmental Microbiology
	VI	Medical Microbiology
		Microbial Biotechnology
		Bioinformatics
		Advanced Microbiology

24. MUSIC - B.A. (Hons) Hindustanni

Course	Semester	Main Subject Paper
B.A. (Hons) Hindustanni	V	Biographies of Musicians & Composers (Theory)
		History of Indian Music (Theory)
		Stage Performance & Viva-voce (Practical-VII)
		Dhrupad & Dhamar/Other than Teen Taal (Practical-VIII)



	VI	Applied Musicology (Theory)
		Study of Ancient & Medieval Treatises (Theory)
		Stage Performance & Viva-voce (Practical-IX)
		Dhrupad & Dhamar/Other than Teen Taal (Practical-X)

B.A. (Hons) Karnatak Music

Course	Semester	Main Subject Paper
B.A. (Hons) Karnatak Music	V	Indian Music-II
		Study of Applied Musicology-I
		Stage Performance (Practical-VII)
		Viva-voce (Practical-VIII)
	VI	Study of Hindustani Music (Theory)
		Study of Applied Musicology-II
		Stage Performance (Practical-IX)
		Viva-voce (Practical-X)

B.A. (Hons) Percussion Music

Course	Semester	Main Subject Paper
B.A. (Hons) Percussion Music	V	Study of Ancient and Medieval Period's Avanadha Vadya (Theory)
		Biographies of Musicians and Composers (Theory)
		Stage Performance (Practical-VII)
		Viva-voce (Practical-VIII)
	VI	Study of Hindustani and Karnataka Talas System (Theory)
		Applied Musicology (Theory)
		Stage Performance (Practical-IX)
		Viva-voce (Practical-X)

25. PERSIAN

Course	Semester	Main Subject Paper
B.A. (Hons) Persian	V	Classical Indo-Persian Poetry
		Sufistic Literature
		Ethical Literature
		Historical Texts
	VI	History of Persian Literature (India)

		History of Persian Literature (Iran)
		Research Methodology and Project work
		Life & works of Mughal Poet laureates

26. PHILOSOPHY

Course	Semester	Main Subject Paper
B.A. (Hons) Philosophy	V	Philosophy of Religion
		Philosophy of Language (western)
		Philosophy of Law
		Philosophy of Science
	VI	Philosophy of Language (Indian)
		Feminism
		Continental Philosophy (Texts)
		Philosophy of Mind (Western)

27. PHYSICAL EDUCATION & SPORTS SCIENCES

Course	Semester	Main Subject Paper
B.Sc. (Physical Education, Health Education & Sports.)	V	Yoga
		Sports Psychology
		Physical Activity & Sports Technology
		Game of Specialization (Continued from Sem.-IV)
	VI	Kinesiology & Biomechanics
		Test, Measurement & Evaluation
		Fundamental of Sports Training
		Management in Physical Education & Sports

28. PHYSICS & ASTROPHYSICS

Course	Semester	Main Subject Paper
B.Sc (Hons) Physics	V	Quantum Mechanics & Application-I
		Electromagnetic Theory
		Solid State Physics
		Statistical Mechanics
	VI	Mathematical Physics-IV
		Quantum Mechanics & Applications-II

		Physics of Devices and Instruments
		Classical Dynamics

29. POLITICAL SCIENCE

Course	Semester	Main Subject Paper
B.A. (Hons.) (Political Science)	V	Indian Political Thought-I
		Western Political Philosophy-I
		Public Administration: Theory and Practice
		Development Process and Social Movements in Contemporary India
	VI	Indian Political Thought-II
		Western Political Philosophy-II
		Public Policy and Administration in India
		India's Foreign Policy

30. PSYCHOLOGY

Course	Semester	Main Subject Paper
B.A. Psychology	V	Counseling Psychology (Theory + Practical)
		Foundations of Organization Behaviour (Theory + Practical)
		Understanding and dealing with Psychological Disorders (Theory + Practical)
		Community Psychology (Theory + Practical)
	VI	Bio-Psychology (Theory+Practical)
		Understanding Human Resource and Practices (Theory+Practical)
		Cultural and Indigenous Psychology (Theory+Practical)
		Media Psychology (Theory+Practical)

31. PUNJABI

Course	Semester	Main Subject Paper
B.A. Punjabi	V	Culture and Punjabi Culture
		Pakistani Punjabi Literature
		Parvasi Punjabi Literature
		Indian Literature
	VI	Gurmat Poetry
		Sufi Poetry
		Punjabi Qissa Poetry
		World Literature

32. SANSKRIT

Course	Semester	Main Subject Paper
B.A. Sanskrit	V	Poetics & Literary Criticism
		Vedic Literature
		Introduction to Indian Philosophy
		Proficiency in Sanskrit Language (Essay & Translation)
	VI	Indian Scientific Heritage
		Indian Social Institutions & polity
		Theatre & Dramaturgy in Sanskrit
		Indian Reasoning

33. SOCIAL WORK

Course	Semester	Main Subject Paper
B.A (Hons) Social Work	V	Areas of Social work Practice-I
		Social action and movements
		Health and social work
		Social welfare and development administration
	VI	Research in social work -I
		Areas of social work practice-II
		Social Policy and development
		Integrated Methods of social work

34. SOCIOLOGY

Course	Semester	Main Subject Paper
B.A. (Hons.) Sociology	V	Sociological Thinkers-II
		Agrarian Sociology
		Industry and Society
		Sociology of Development
	VI	Method of Sociological Enquiry
		Social Stratification
		Social Movements
		Urban Sociology

35. SPANISH

Course	Semester	Main Subject Paper
B.A. (Hons.) Spanish	V	Language in Context: Developing Reading and Writing Skills -V
		Language in Context: Developing Listening and Speaking Skills -V
		Reading Literature- 1

		Cultural History
	VI	Language in Context: Developing Reading and Writing Skills -VI
		Language in Context: Developing Listening and Speaking Skills -VI
		Reading Literature -2
		Introduction to Foreign Language Teaching: Theory and Practical

36. STATISTICS

Course	Semester	Main Subject Paper
B.SC. (Hons.) Statistics	V	Statistical Inference-I
		Linear Models
		Applied Statistics-II
		Stochastic Processes
	VI	Statistical Inference-II
		Design of Experiments
		Econometrics
		Bio-Statistics

37. URDU

Course	Semester	Main Subject Paper
Urdu	V	Ilm-e-Arooz
		Urdu Tanqeed
		Marsia, Masnavi & Qaseeda
		Study of Permchand
	VI	Fasahat-o- Balaghat
		Fanne Tehqiq
		Urdu Ki Adabi Tehreeken
		Study of Ghalib

38. ZOOLOGY

Course	Semester	Main Subject Paper
B.Sc (Hons) Zoology	V	Animal Behaviour
		Concepts and Mechanisms of Evolution
		Immunology
		Developmental Biology
	VI	Principles of Genetics
		Bioinformatics and Biostatistics
		Molecular Biology
		Biotechnology: Microbes to Animals

- (ii) Following is the list of B.Tech. courses wherein the main papers (Hons.) and the specified Basic/ Allied Engineering Science papers, which can be offered to students have been compiled.

1. COMPUTER SCIENCE (B.Tech.)

Course	Semester	Main Subject Paper	Basic/Allied Engineering Science#
B.Sc. (H) Computer Science	V	Probability Theory and Statistical Computing	Course to be designed and approved.
		Theory of Computation	
		Computer Graphics	
	VI	Microprocessor	Strategic Human Resource Management (Course to be designed and approved)
		Systems Programming and Compiler Design	
		Network Programming	
	VII	Artificial Intelligence	Course to be designed and approved.
		Information Security	
		Project	
	VIII	Course to be designed and approved.	Course to be designed and approved.
		Course to be designed and approved.	
		Project	

2. ELECTRONICS (B.Tech.)

Course	Semester	Main Subject Paper	Basic/Allied Engineering Science#
B.Tech. Electronics	V	Microprocessors	Numerical Methods (Course to be designed and approved)
		Electromagnetic Waves & Transmission Lines	
		Communication Electronics	
	VI	Embedded Systems	Computer Networks (Course to be designed and approved)
		Control Systems	
		Engineering Mathematics-II	
	VII	Semiconductor Fabrication & Characterization	Course to be designed and approved.
		Photonics	
		Project	
	VIII	Electrical Technology	Course to be designed and

			approved.
		Modern Communication System	
		Project and Dissertation	

3. FOOD TECHNOLOGY (B.Tech.)

Course	Semester	Main Subject Paper	Basic/Allied Engineering Science#
B.Tech. Food Technology	V	Differential Equations	Thermal Physics (Course to be designed and approved)
		Advanced Food Chemistry	
		Food Microbiology	
	VI	Food Engineering	Probability and Statistical Methods (Course to be designed and approved)
		Food Safety and Regulations	
		Analytical Instrumentation	
	VII	Food Quality Management	Course to be designed and approved.
		Food Packaging Technology	
		Industrial/Research Project	
	VIII	Food Plant Sanitation and Waste Management	Course to be designed and approved.
		Nutraceuticals and Functional Foods	
		Industrial/Research Project	

4. INSTRUMENTATION (B.Tech.)

Course	Semester	Main Subject Paper	Basic/Allied Engineering Science#
B.Tech. Instrumentation	V	Control Systems	Numerical Methods (Course to be designed and approved)
		Analytical Instrumentation	
		Biomedical Instrumentation	
	VI	Virtual Instrumentation	Signals & Systems (Course to be designed and approved)
		System Design using Microprocessor	
		Advanced Biomedical Instrumentation	
	VII	Advanced Instrumental Methods of Analysis	Programming in C and Data Structures (Course to be designed and approved)
		Process Control Dynamics	
		Project	

	VIII	Artificial Intelligence Control Techniques	Networks and Internet/Technology/Communication (Course to be designed and approved)
		8051 & Advanced Microcontrollers	
		Project and Dissertation	

5. POLYMER SCIENCE (B.Tech.)

Course	Semester	Main Subject Paper	Basic/Allied Engineering Science#
B.Tech. Polymer Science	V	Polymer Degradation	Chemical Bonding
		Fiber Science and Rubber Technology	
		Polymers in Packaging Technology	
	VI	Tyre Technology	Engineering Graphics and Drawing (Course to be designed and approved)
		Recycling & Waste Management	
		Conducting Polymers	
	VII	Fiber Manufacturing Technology	Basic Electronics (Course to be designed and approved)
		Speciality Polymers	
		Project	
	VIII	Applied Polymer Science	Computer Programming and Fundamentals (Course to be designed and approved)
		Polymeric Nanomaterial	
		Project	

To be notified later.


REGISTRAR
