Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Shri Vaishnav Institute of Social Sciences, Humanities and Arts
Choice Based Credit System (CBCS) in Light of NEP-2020
Humanities (Common Course)
Semester I (Batch 2021-24)

COURSE CODE	CATE-GORY	COURSE NAME	TEACHING &EVALUATION SCHEME								
			THEORY			PRACTICAL					
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	L	T	P	CREDITS
HU101	AECC	Foundation English I	60	20	20	0	50	3	0	2	4

Legends: L - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical; **C** - Credit;
*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

Course Educational Objectives (CEOs): The students will

- **CEO 1** Understand the different nuances of communication.
- **CEO2** understand the features of listening skill.
- **CEO3** Comprehend the factors that influence use of grammar and vocabulary in speech and writing
- **CEO4** study the essential aspects of effective written communication through Business letters and email writing for professional success.
- **CEO5** Identify other common methods of professional communication

Course Outcomes (COs): The students will be able to

- **CO1** develop a comprehensive understanding of the theoretical and practical aspects of communication.
- **CO2** explain the difference between listening and hearing and understand the value of listening.
- **CO3** Apply grammatical rules in speech and writing.
- **CO4** Use proper formats of written business communication.
- **CO5** Use appropriate organization and order of words, sentences and paragraphs in technical writing.

Paper I
HU101
Foundation English I

COURSE CONTENTS

UNIT I
Communication: Nature, Meaning, Definition, Process, Functions and importance, Characteristics of Business Communication, Verbal and Non-Verbal Communication, Barriers to Communication.

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Semester I (Batch 2021-24)

COURSE CODE	CATE-GORY	COURSE NAME	THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
HU101	AECC	Foundation English I	60	20	20	0	50	3	0	2	4

Legends: L - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical; **C** - Credit;
*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

UNIT II
Listening: Process, Types, Difference between Hearing and Listening, Benefits of Effective Listening, Barriers to Effective Listening, Overcoming Listening Barriers, and How to Become an Effective Listener

UNIT III
Basic Language Skills: Grammar and usage- Parts of Speech, Tenses, Subject and Verb Agreement, Prepositions, Articles, Types of Sentences, Direct - Indirect, Active - Passive voice, Phrases & Clauses.

UNIT IV
Business Correspondence: Business Letters, Parts & Layouts of Business Letter, Job application and Resume, Application Calling/ Sending Quotations/ Orders/ Complaints. E-mail writing, Email etiquettes

UNIT V
Précis Writing and Noting: The Purpose of Notes, Methods of Notetaking, General Principles of Good Notes. Drafting: Notices, Agenda and Minutes. Advertisement: Importance, Types, Various Media of Advertising, Slogan Writing.

Practicals
- Self Introduction
- Reading Skills and Listening Skills
- Linguistics and Phonetics
- Role plays
- Oral Presentation – Preparation & Delivery using audio – visual aids with stress on body language and voice modulations.
- Social etiquettes

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Semester I (Batch 2021-24)

COURSE CODE	CATE-GORY	COURSE NAME	TEACHING &EVALUATION SCHEME								
			THEORY			PRACTICAL					
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	L	T	P	CREDITS
HU101	AECC	**Foundation English I**	60	20	20	0	50	3	0	2	4

Legends: L - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical; **C** - Credit;
***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

Suggested Readings:

- Adair, John (2003). **Effective Communication**. London: Pan Macmillan Ltd.
- A.J. Thomson and A.V. Martinet (1991). **A Practical English Grammar** (4th ed). New York: Ox- ford IBH Pub
- Ashraf Rizvi. (2005). **Effective Technical Communication**. New Delhi: Tata Mc Graw Hill
- Kratz, Abby Robinson (1995). **Effective Listening Skills**. Toronto: ON: Irwin Professional Publishing.

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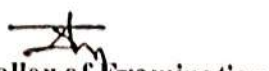### Choice Based Credit System (CBCS)

B.Sc. Phys. Hons. I Sem

Subject Code	Category	Subject Name	Theory			Practical		Th	T	P	CREDITS
			End Sem University Exam	Two Term Exam	Teachers Assessment	End Sem University Exam	Teachers Assessment				
BSPH102	DC	General Properties of Matter	60	20	20	30	20	4	0	0	4

Course Objectives	1. To develop the comprehensive understanding of laws of physics related to General Properties of Matter and ability to apply them for laying the foundation for research and development. 2. To work ethically as member as well as leader in a diverse team.
Course Outcomes	1. Student will be able to understand and solve the problems related to General Properties of Matter. 2. Student will be able to determine physical parameter experimentally with optimal usage of resources and complete the assignments in time.

Abbreviation		Teacher Assessment (Theory) shall be based on following components: Quiz / Assignment/ Project / Participation in class (Given that no component shall be exceed 10 Marks).
Th	Theory	
T	Tutorial	Teacher Assessment (Practical) shall be based on following components: Viva / File / Participation in Lab work (Given that no component shall be exceed 50% of Marks).
P	Practical	

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Choice Based Credit System (CBCS)
BSPH102: General Properties of Matter

UNIT I: System of many particles

System of particles and equation of motion, Centre of mass for a system of particles, motion of the center of mass, law of conservation of linear momentum for a system of one, two, n particles, law of conservation of angular momentum for a single particle, system of n particles and examples, recoil velocity on firing a bullet from a gun, motion of a boat or propulsion of an Aeroplane, jet propulsion, motion of rocket. Kepler's law of planetary motion.

UNIT II: Rotational Dynamics

Motion of rigid body, rotatory motion, equations of rotationary motion of a particle under a constant angular acceleration, angular momentum and concept of moment of inertia in rotational motion, Newton's law of rotational motion, Moment of inertia and its examples, radius of gyration, rotational kinetic energy, relation between Torque and moment of inertia, Theorem of parallel axis, theorem of perpendicular axis.

UNIT III: Elasticity

Elasticity, Effect of temperature and impurities on elasticity of a substance; small deformation, Stress and Strain; Hook's law, elasticity constants for an isotropic solid, Young's modulus, Bulk Modulus, Modulus of rigidity, Poisson's ratio, Relationship between the various elastic moduli. Bending of beam and bending moment, Cantilever, transverse oscillations of a cantilever, torsion of cylinder.

UNIT IV: Oscillations

SHM: Simple Harmonic Oscillations, Differential equation of SHM and its solution. Kinetic energy, Potential energy, total energy and their time-average values. Damped oscillation. Forced oscillations: Transient and steady states; Resonance, sharpness of resonance; power dissipation and Quality Factor, motion of simple pendulum, motion of compound pendulum, motion of mass connected with spring, motion of torsional pendulum.

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Choice Based Credit System (CBCS)

BSPH102: General Properties of Matter

UNIT V: Fluid Mechanics

Ideal and Viscous fluid, Stream line and Turbulent flow, Reynolds's number, Rotational and irrotatinal flow, Equation of continuity, Bernoulli's theorem and its application, Stokes law, viscous flow of fluids, Effect of pressure and temperature on the coefficient of viscosity, Poiseulle's formula, Intermolecular forces-cohesive and adhesive forces, Surface tension, Surface energy, Effect of temperature and impurities on the surface tension, Angle of contact; expression for pressure on a curved surface,
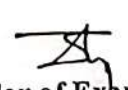
References

1. D. Kleppner and R. Kolenkow, *An Introduction to Mechanics*, 2nd Edition, Cambridge University Press, 2014.
2. D. S. Mathur, *Elements of Properties of Matter*, S. Chand & Co., 1962.
3. C. Kittel, W. D. Knight and M. A. Ruderman, *Mechanics, Berkeley Physics Course*, Vol. 1, 2nd Edition, McGraw-Hill Book Company, 1973.
4. Halliday and Resnick, *Fundamentals of Physics*, 10th Edition, John Wiley & Sons, 2014.
5. H. D. young, R. A. Freedman, R. Bhathal and A. L. ford, *Sears and Zemansky's University Physics with Modern Physics*, 1st Australian SI Edition, Pearson Education Inc, 2011.

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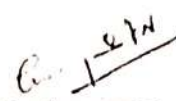
Choice Based Credit System (CBCS)

B. Sc. I Sem

Subject Code	Category	Subject Name	Teaching and Evaluation Scheme								
			Theory			Practical		Th	T	P	CREDITS
			End Sem University Exam	Two Term Exam	Teachers Assessment	End Sem University Exam	Teachers Assessment				
BSHPRP106	DC	Physics Laboratory I	60	20	20	30	20	0	0	4	2

Course Objectives	To work ethically as member as well as leader in a diverse team.
Course Outcomes	Student will be able to determine physical parameter experimentally with optimal usage of resources and complete the assignments in time.

Abbreviation		Teacher Assessment (Theory) shall be based on following components: Quiz / Assignment / Project / Participation in class (Given that no component shall be exceed 10 Marks).
Th	Theory	
T	Tutorial	Teacher Assessment (Practical) shall be based on following components: Viva/ File/ Participation in Lab work (Given that no component shall be exceed 50% of Marks).
P	Practical	

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Choice Based Credit System (CBCS)

BSHPRP106: Physics Laboratory I

List of Experiments

1. To verify laws of Perpendicular axes for moment of inertia.
2. To determine Acceleration due to gravity using compound pendulum.
3. To determine Coefficient of Viscosity of fluid using Stoke's law.
4. To determine Young's Modulus using Cantilever method.
5. To determine Surface Tension by Jaeger's method.
6. To determine Coefficient of Viscosity of fluid using Poisellie's method.
7. To determine Modulus of rigidity by Torsional pendulum.
8. To determine Young's Modulus of long wire by Searl's method.
9. To determine Poisson's ratio of rubber tube.
10. To determine the force constant of the given spring in parallel combination.

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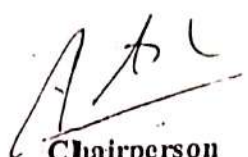
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Choice Based Credit System (CBCS)

B.Sc. Phys. Hons. I Sem

Subject Code	Category	Subject Name	Teaching and Evaluation Scheme								CREDITS
			Theory			Practical		Th	T	P	
			End Sem Universty Exam	Two Term Exam	Teachers Assessment	End Sem University Exam	Teachers Assessment				
BSPHPH103	DC	Mathematical Physics and Relativity	60	20	20	0	0	5	0	0	5

Course Objectives	1. To develop the comprehensive understanding of laws of physics related to Mathematical Physics and Relativity and ability to apply them for laying the foundation for research and development. 2. To work ethically as member as well as leader in a diverse team.
Course Outcomes	1. Student will be able to understand and solve the problems related to Mathematical Physics and Relativity. 2. Student will be able to determine physical parameter experimentally with optimal usage of resources and complete the assignments in time.

Abbreviation		Teacher Assessment (Theory) shall be based on following components: Quiz / Assignment/ Project / Participation in class (Given that no component shall be exceed 10 Marks).
Th	Theory	
T	Tutorial	Teacher Assessment (Practical) shall be based on following components: Viva / File / Participation in Lab work (Given that no component shall be exceed 50% of Marks).
P	Practical	

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BSPHPH 103: Mathematical Physics and Relativity

UNIT I: Vector Calculus: Scalar and vector fields, gradient, divergence and curl with their physical significance. Line, Surface and Volume Integrals, Important Vector Identities. Introduction to Gauss's divergence and Stoke's theorem and their applications.

UNIT II: Matrices: Introduction, Review of Algebraic Operation of Matrices, Sub-matrices. Special types of matrices. Transpose and Conjugate of a Matrix. Symmetric and Antisymmetric Matrices, Hermitian and Skew- Hermitian Matrices, Determinant of a matrix, Trace and Rank of a Matrix. Eigen values, Eigen Vectors; Characteristic equation of a Matrix. Cayley- Hamilton Theorem.

UNIT III: Orthogonal curvilinear coordinates; cylindrical and spherical polar coordinates- divergence, gradient, Curl and Laplacian in these coordinates. Unit Vectors in Cylindrical and Spherical Coordinates, Expression for Velocity and Acceleration in Cylindrical and Spherical Coordinates.

UNIT IV: Reference Frames: Inertial Frames and Galilean Transformations. Galilean Invariance and Conservation Laws. Non-inertial Frames and Fictitious Forces. Uniformly Rotating Frame. Centrifugal forces: Coriolis Force and its Applications, Michelson-Morley Experiment and its Outcome.

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BSPHPH 103: Mathematical Physics and Relativity

UNIT V: Relativity: Postulates of Special Theory of Relativity. Lorentz Transformations. space-time interval between the two events, Simultaneity and Order of Events. Lorentz Contraction. Time Dilation. Relativistic Transformation of Velocity, Frequency and Wave Number. Theorem of Addition of Relativistic Velocities. Variation of Mass with Velocity, Particle with zero rest mass. Mass energy Equivalence. Relationship between the relativistic energy and momentum.

REFERENCES

1. An introduction to ordinary differential equations, E.A. Coddington, 2009, PHI learning
2. Differential Equations, George F. Simmons, 2007, McGraw Hill.
3. Mathematical Tools for Physics, James Nearing, 2010, Dover Publications.

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Name of the Program:B. Sc. (Honours)

SUBJECT CODE	Category	SUBJECT NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		Th	T	P	CREDITS
			END SEM	MST	Q/A	END SEM	Q/A				
BSHMA104	HONS	Classical Algebra & Analytical Geometry of two dimensions	60	20	20	-	-	4	0	-	4

Course Objective

To introduce the students with the Fundamentals of the Classical Algebra andAnalytical Geometry of two dimensions.

Course Outcomes

After the successful completion of this course students will be able to

1. *understand and apply the basics of the Set theory.*
2. *know the fundamental principles of the algebra of the complex numbers.*
3. *apply the techniques to find the roots of an equation after knowing the relation between the roots and the coefficients.*
4. *know the basic principles of the Analytical Geometry of two dimensions.*
5. *understand and apply the basics of the calculus of the Matrices.*

Course Content:

UNIT – I
Classical Algebra: Complex Numbers: De Moivre's Theorem and its applications. Exponential,Sine, Cosine and Logarithm of a complex number. Definition of az, (a≠0).Inverse circular and Hyperbolic functions.**Polynomials:** Fundamental Theorem of Classical Algebra (Statement only).Polynomials with real co-efficients: The nth degree polynomial equation has exactly n roots. Nature of roots of an equation (Surd or Complex roots occurin pairs). Statement of Descarte's Rule of signs and its applications.

<u>**UNIT – II**</u>
Polynomials: Statements of**:** (i) If the polynomial $f(x)$ has opposite signs for two real values of x,e.g. a and b, the equation $f(x) = 0$ has an odd number of real roots between a and b; if $f(a)$ and $f(b)$ are of same sign, either no real rootor an even number of roots lies between a and b. Rolle's Theorem and its direct applications.Relation between roots and co-efficients. Symmetric functions of roots,Transformations of equations. Cardan's method of solution of a cubic.

<u>**UNIT – III**</u>
Determinants up to the third order : Properties, Cofactor and Minor. Product of two determinants. Adjoint, Symmetric and Skew-symmetric determinants. Solutions of linear equations with not more than three variables by Cramer's Rule. **Matrices of Real Numbers:** Equality of matrices. Addition of matrices. Multiplication of matrices and properties. Transpose and its properties. Inverse of matrix. Symmetric and Skew-symmetric matrices. Scalar matrix.Orthogonal matrix. Elementary operations on matrices. **Rank of a matrix :** Rank a Matrix. Consistency and solution of a system of linear of equationswith not more than 3 variables by matrix method.

<u>**UNIT – IV**</u>
Analytical Geometry of 2 Dimensions: Transformations of Rectangular axes **:** Translation, Rotation and their combinations. Invariants. General equation of second degree in x and y**:** Reduction to canonical forms. Classification of conic. **Pair of straight lines :** Condition that the general equation of 2nd degree in x and y may represent two straight lines. Points of intersection of two intersecting straight lines. Angle between two lines given by $ax^2 + 2hxy + by^2 = 0$. Equation of bisectors. Equation of two lines joining the origin to the points in which a line meets a conic.

<u>**UNIT – V**</u>
Analytical Geometry of 2 Dimensions: Equations of pair of tangents from an external point, chord of contact,poles and polars in case of General conic **:** Particular cases for Parabola,Ellipse, Circle, Hyperbola.Polar equation of straight lines and circles. Polar equation of a conic referredto a focus as pole. Equation of chord joining two points. Equations of tangentand normal.

BOOKS:
1. The Theory of Equations (Vol. I) – Burnside and Panton.
2. Topics in Algebra – Hernstein.
3. Test book of algebra – Leadership Project Committee (University of Bombay).
4. Abstract Algebra – N. P. Chaudhuri (Tata Mc.Graw Hill).
5. Linear Algebra – Hadley
6. Test Book of Matrix – B. S. Vaatsa
7. Co-ordinate Geometry – S. L. Loney.
8. Solid Analytic Geometry – C. smith.
9. Higher Geometry – Efimov.

Semester-I (B.Sc. - Honours)

SUBJECT CODE	Category	SUBJECT NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		Th	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
BSHCH105	HONS	Chemistry - I (Atomic Structure, Bonding, General Organic Chemistry)	60	20	20	30	20	3	1	2	5

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical;   **C** - Credit;
*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

Course Objectives:-

To give basic knowledge of Basic Chemistry.

To understand and apply the knowledge of Atomic Structure and Bonding.

Course Outcomes:-

After completion of this course the students are expected to be able to demonstrate following knowledge, skills and attitudes. The student will demonstrate capability of

CO1. Theoretical understanding of various state of matter.

CO2.   Became aware of the importance of Chemistry and its laws in the field of chemistry and dealing with its numerical approach.

UNIT 1: Inorganic Chemistry-1

Atomic Structure: *Review of: Bohr's theory and its limitations, dual behaviour of matter and radiation, de Broglie's relation, Heisenberg Uncertainty principle. Hydrogen atom spectra. Need of a new approach to Atomic structure.*

What is Quantum mechanics? Time independent Schrodinger equation and meaning of various terms in it. Significance of ψ and ψ^2,   quantum numbers, orbital angular momentum and quantum numbers m_l and m_s . Shapes of *s*, *p* and *d* atomic orbitals, nodal planes. Discovery of spin, spin quantum number (*s*) and magnetic spin quantum number (m_s).

Rules for filling electrons in various orbitals, Electronic configurations of the atoms. Stability of half-filled and completely filled orbitals, concept of exchange energy. Relative energies of atomic orbitals, Anomalous electronic configurations.

UNIT 2: Chemical Bonding and Molecular Structure

Ionic Bonding: General characteristics of ionic bonding. Energy considerations in ionic bonding, lattice energy and solvation energy and their importance in the context of stability and solubility of ionic compounds. polarizing power and polarizability. Fajan's rules, ionic character in covalent compounds, bond moment, dipole moment and percentage ionic character.

Covalent bonding: VB Approach: Shapes of some inorganic molecules and ions on the basis of VSEPR and hybridization with suitable examples of linear, trigonal planar, square planar, tetrahedral, trigonal bipyramidal and octahedral arrangements.

UNIT 3: *Organic Chemistry-1*

Fundamentals of Organic Chemistry

Physical Effects, Electronic Displacements: Inductive Effect, Electromeric Effect, Resonance and Hyperconjugation. Cleavage of Bonds: Homolysis and Heterolysis.

Structure, shape and reactivity of organic molecules: Nucleophiles and electrophiles. Reactive Intermediates: Carbocations, Carbanions and free radicals.

Strength of organic acids and bases: Comparative study with emphasis on factors affecting pK values. Aromaticity: Benzenoids and Hückel's rule.

UNIT 4:

Conformations with respect to ethane, butane and cyclohexane. Interconversion of Wedge Formula, Newmann, Sawhorse and Fischer representations. Concept of chirality (upto two carbon atoms). Configuration: Geometrical and Optical isomerism; Enantiomerism, Diastereomerism and Meso compounds). Threo and erythro; D and L; *cis - trans* nomenclature; CIP Rules: R/ S (for upto 2 chiral carbon atoms) and E / Z Nomenclature (for upto two C=C systems).

UNIT 5: Physical Chemistry-1
Kinetic Theory of Gases

Postulates of Kinetic Theory of Gases and derivation of the kinetic gas equation.
Deviation of real gases from ideal behaviour, compressibility factor, causes of deviation. van der Waals equation of state for real gases. Boyle temperature (derivation not required). Maxwell Boltzmann distribution laws of molecular velocities and molecular energies (graphic representation – derivation not required) and their importance.
Temperature dependence of these distributions. Most probable, average and root mean square velocities (no derivation). Collision cross section, collision number, collision frequency, collision diameter and mean free path of molecules. Viscosity of gases and effect of temperature and pressure on coefficient of viscosity (qualitative treatment only).

Liquids

Surface tension and its determination using staglomometer. Viscosity of a liquid and determination of coefficient of viscosity using Ostwald viscometer. Effect of temperature on surface tension and coefficient of viscosity of a liquid (qualitative treatment only).

UNIT – IV

Solution of system of linear algebraic equations: Matrix equation, Method of triangular matrices, Gaussian elimination with pivoting, Jacobian and Gauss-Siedel iteration

UNIT – V

Numerical solution of the ODE: Euler's method, Runge-Kutta methods, Multi-step method, System of differential equation.

Suggested Readings:
1. Akai Terrence J: Applied Numerical Methods for engineers, John Wiley & Sons, Inc. 1994
2. Schilling Robert J & Harried Sanddra L: Applied Numerical Methods for engineers, Thomson, 2000

Name of Program: BCA + MCA

COURSE CODE	CATEGORY	COURSE NAME	L	T	P	CREDITS	THEORY END SEM University Exam	THEORY Two Term Exam	THEORY Teachers Assessment*	PRACTICAL END SEM University Exam	PRACTICAL Teachers Assessment*
BCCA103	COMPULSORY	PC-Software	3	1	0	4	60	20	20	0	0

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical;   C - Credit; Q/A – Quiz/Assignment/Attendance, MST - Mid Sem Test.
*Teacher Assessment shall be based on following components: Quiz/Assignment/Project/Participation in class (Given that no component shall be exceed 10 Marks)

Course Educational Objectives (CEOs):
- To provide the knowledge of using different software packages including word processor, electronic spreadsheet, presentation s/w
- To develop an understanding of database management system
- To explain how to integrate the data stored in word processor, spreadsheet etc.
- To develop presentation skills using these software.

Course Outcomes (COs) : Students will be able to
- To create word documents and to format them using various tools available
- To create tables and manipulate them
- To use mail merge, labels
- Creating spreadsheet for storing and managing data using functions
- Format, print spreadsheet
- Create power point presentation for different purposes using objects, animation
- To store and manipulate data stored in databases.
- To export and import data stored from and to, among word processor, spreadsheet, DBMS, presentation s/w

UNIT – I
Word Processor: Introduction, Word Processing, Advantages of word processing, Creating, Saving and editing a document: Selecting, Deleting, Replacing Text, Copying text to another file. Formatting Text and Paragraph: Using the Font Dialog Box, Paragraph Formatting using Bullets and Numbering in Paragraphs, Line spacing, Margins.

UNIT – II
Creating and Formatting Tables: Changing Row height, inserting columns, Merging cells Calculations in a Table, Sorting Text, Toolbar using word art, Mail merge: Definition, a Practical Example of mail merge, creating charts.
Defining Tabs: Tabs Dialog Box, Enhancing a Document: Inserting page Breaks, Adding Border, Using Header and Footers in the Document.

UNIT – III
Spread sheet: Introduction, Definition. Screen parts of worksheet, Entering information: Numbers, Formula, Editing Data in a cell, Using a Range with SUM, Moving and copying data, Inserting and Deleting Row and Columns in the worksheet, Using the format cells Dialog box.

UNIT – IV
Protecting a workbook with Password, Macro: Recording and Running a Macro, Linking workbook files Using Pivot table, Inserting Hyper links, Using chart wizard to create a chart, Naming ranges, classification of Functions.

UNIT – V
Presentation : Introduction, Slide show, Formatting, Creating a Presentation, Inserting clip Arts, Adding Objects, Applying Transitions, Animation effects, formatting and checking text, Modifying Visual elements, Preparing a complete presentation, Case studies.
DBMS: Introduction, Basic terms of access, objectives, What is database, Creating a new database, Creating a database through table wizard, Creating a new table, Rename columns, Saving the database.

Suggested Readings:
1. Taxali R. K. "PC Software for Windows 98, Made Simple" TMH.
2. Saxena Sanjay, "MS Office 2000 "Vikas Publication House PVT LTD.
3. Busbby M. and Stultz R.A. "Microsoft Office 2000", BPB.
4. Jain S., Geetha M. and Kratika, "Microsoft Office-2007", BPB
5. Microsoft Office – Complete Reference – BPB Publication.

Name of Program: BCA + MCA

COURSE CODE	CATEGORY	COURSE NAME	L	T	P	CREDITS	THEORY END SEM University Exam	THEORY Two Term Exam	THEORY Teachers Assessment*	PRACTICAL END SEM University Exam	PRACTICAL Teachers Assessment*
BCCA104	COMPULSORY	Fundamentals of Computers and IT	3	1	0	4	60	20	20	0	0

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical;   C - Credit; Q/A – Quiz/Assignment/Attendance, MST - Mid Sem Test.
*Teacher Assessment shall be based on following components: Quiz/Assignment/Project/Participation in class (Given that no component shall be exceed 10 Marks)

Course Educational Objectives (CEOs):
- To create basic understanding of Computer System
- To provide knowledge of concepts of Operating Systems
- To familiarize the students with the need, goal, function and architecture of various operating system available
- To develop the understanding of trends of IT industry, safe and ethical use of IT

Course Outcomes (COs): students will be able to
- To understand the need, goal and function of the OS
- Understand and use Windows and Linux operating systems commands.
- Organizing and manipulating files and folders.
- Understand and Use different editors of Linux
- Manipulating data using input output redirection
- Writing shell scripts
- To exercise the safe computer practices

Name of Program: BCA + MCA

COURSE CODE	CATEGORY	COURSE NAME	L	T	P	CREDITS	TEACHING & EVALUATION SCHEME				
							THEORY			PRACTICAL	
							END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*
BCCA107	COMPULSORY	Lab-2 (PC-Software Lab-Office Tools)	0	0	4	2	0	0	0	30	20

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical;   C - Credit;
Q/A – Quiz/Assignment/Attendance, MST - Mid Sem Test.
*Teacher Assessment shall be based on following components: Quiz/Assignment/Project/Participation in class (Given that no component shall be exceed 10 Marks)

Course Educational Objectives (CEOs):
- To provide the knowledge of using different software packages including word processor, electronic spreadsheet, presentation s/w
- To develop an understanding of database management system
- To explain how to integrate the data stored in word processor, spreadsheet etc.
- To develop presentation skills using these software.

Course Outcomes (COs): Students will be able to
- To create simple word documents ant to format them using various tools available
- To create tables and to use various tools
- To use mail merge, labels
- Creating spreadsheet for storing and managing data using functions
- Format, print spreadsheet
- Create power point presentation for different purposes using objects, animation
- To store and manipulate data stored in databases.
- To export and import data among word processor, spreadsheet, DBMS, presentation s/w

List of Experiments:
1. To open and practice of OS – Folder related operations, My-Computer, window   explorer, Control Panel,
2. To create, save and editing of Text files using word processor.
3. Formatting and printing of document (setting of margins, size, orientation, different breaks etc. Checking of spelling and use of thesaurus)
4. Creating, inserting tables, header, footers, hyperlink, different objects in a document
5. Use of Charts in Word Processor.
6. Creating a mail merged documents, labels
7. Creating and manipulating spreadsheets. To create, save and editing of spreadsheets. Use of cell

8. references, sorting and filtering data in a spreadsheet, using formulae
9. Formatting and printing of spreadsheets (setting of margins, size, orientation, different breaks etc. What if analysis, mail merging
10. Creating header, footers, hyperlink, different objects in a spreadsheet
11. Creating different types of graphs and printing
12. Creation, editing and formatting presentation slides.
13. Create presentation for different purposes using objects, animation
14. Creation and manipulation of database table using SQL.
15. To store and manipulate data stored in databases.
16. To export and import data among word processor, spreadsheet, DBMS, presentation s/w

Suggested Readings:
1. Kanitkar Yashwant, 'Let us C', BPB New Delhi
2. Balaguruswami, 'Ansi C', TMH, Delhi
3. Kerninghan & Ritchie "The C programming language", PHI
4. Schildt "C:The Complete reference" 4th ed TMH.
5. Cooper Mullish "The Spirit of C", Jaico Publishing House, Delhi