Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Shri Vaishnav Institute of Social Sciences, Humanities and Arts
Choice Based Credit System (CBCS) in Light of NEP-2020
Ability Enhancement Course (AEC)
Semester I& II (Batch 2022-26)

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
ENG101	AEC	Foundation English	60	20	20	-	-	4	0	0	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 and reading skills.
- **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** Develop competency in 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** understand and the different aspects of listening and reading.
- **CO3** Apply grammatical rules in speech and writing.
- **CO4** Use proper formats of written business communication.
- **CO5** Demonstrate different strategies for using professional communication skills.

ENG101
Foundation English

COURSE CONTENTS

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

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ENG101	AEC	Foundation English	60	20	20	-	-	4	0	0	4

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;
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UNIT II
Listening and Reading Skills
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, Developing Reading Skills: Reading Comprehension, Process, Active & Passive reading, Reading speed Strategies, Benefits of effective reading, SQ3R Reading technique.

UNIT III
Basic Grammar
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 Letters
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
Professional Skills
Negotiation Skills, Telephonic Skills, Interview Skills: Team building Skills and Time management

Suggested Readings:

- Adair John (2003). **Effective Communication**. London: Pan Macmillan Ltd.
- Thomson A.J. and Martinet A.V. (1991). **A Practical English Grammar** (4th ed). New York: Ox- ford IBH Pub
- Rizvi Ashraf (2005). **Effective Technical Communication**. New Delhi: Tata Mc Graw Hill
- Kratz Robinson (1995). **Effective Listening Skills**. Toronto: ON: Irwin Professional Publishing.
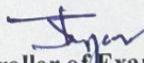
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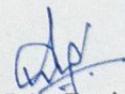Board of Studies
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Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Name of the Program: B. Sc. (Mathematics)

SUBJECT CODE	Category	SUBJECT NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		Th	T	P	CREDITS
			END SEM	MST	Q/A	END SEM	Q/A				
BSCMT 101	DC	**Differential Calculus**	60	20	20	-	-	3	0	-	3

Course Objective

To introduce the students with the fundamentals of the Differential Calculus and its applications

Course Outcomes

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

1. *Understand the significance of derivatives.*
2. *Construct the series of a function.*
3. *Know about the basic concepts of partial differentiations.*
4. *Apply the concept of derivatives and partial derivatives to practical problems.*

Course Content:

UNIT – I
Derivative and its geometrical and physical interpretation, Sign of derivatives and monotonic increasing and decreasing functions, Rolle's and Mean value theorems and simple applications.

UNIT – II
Successive differentiation, Leibnitz theorem, Maclaurin's and Taylor's series expansion, Asymptotes.

UNIT – III
Curvature, test for concavity and convexity, points of inflection, multiple points, tracing of curves in cartesian and polar coordinates.

UNIT – IV
Indeterminant form, L'Hospital's rule, Tangents and Normal, Partial differentiation, Euler's theorem, total derivatives.

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

SUBJECT CODE	Category	SUBJECT NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		Th	T	P	CREDITS
			END SEM	MST	Q/A	END SEM	Q/A				
BSCMT 101	DC	Differential Calculus	60	20	20	-	-	3	0	-	3

UNIT – V

Functions of two and three variables, Maxima and minima of functions of two variables - Lagrange's Method of undetermined multiplier - Problems only. Implicit function in case of function of two variables (existence assumed) and derivative.
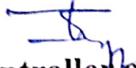
Reference Books:

1. Principles of Mathematical Analysis: W. Ruddin, McGraw-Hill,New York, 1976

2. Differential Calculus: Gorakh Prasad, Pothishala Pvt. Ltd. Allahabad.

3. Differential Calculus: Shantinarayan.

4. An elementary treatise on the Differential Calculus: J. Edwards, Radha Publishing House.

5. Advanced Calculus – David V. Widder (Prentice Hall)

6. Differential & Integral Calculus (Vols. I & II) – Courant & John.

7. Differential & Integral Calculus (Vol. I) – N. Piskunov (CBS Publishers &Distributors).

8. Mathematics Analysis: T.M. Apostol, Eddison Wesley Publishing Co.

9. Calculus, Vol. I-II, T.M. Apostol, Wiley.

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SUBJECT CODE	Category	SUBJECT NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		Th	T	P	CREDITS
			END SEM	MST	Q/A	END SEM	Q/A				
BSCMT 102	DC	Algebra and Trigonometry	60	20	20	-	-	3	0	-	3

Course Objective

To introduce the students with the fundamentals of the Algebra and Trigonometry

Course Outcomes

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

1. *Apply the techniques of the algebra of the determinants.*
2. *Solve the problems involving matrices.*
3. *Understand and apply the basics concept of complex numbers.*
4. *Understand the basics of Mathematical Logic.*

Course Content:

UNIT – I
De-moiver's theorem and its application, Exponential function, Cosine and sine function, Logarithms of a complex number, Inverse circular function, hyperbolic function.

UNIT – II
Relation between the roots and coefficients of a general polynomial equation in one variable, transformation of equations. Reciprocal equations, Descarte's rule of signs.

UNIT – III
Linear Independence of rows and columns of a matrix, Rank of a matrix, Normal & Echelon form of a matrix, Application to system of linear equations.

UNIT – IV
Characteristic equations of a matrix, Eigen values, Eigen vectors, Cayley Hamilton theorem and its use in finding inverse of a matrix.

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SUBJECT CODE	Category	SUBJECT NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		Th	T	P	CREDITS
			END SEM	MST	Q/A	END SEM	Q/A				
BSCMT 102	DC	Algebra and Trigonometry	60	20	20	-	-	3	0	-	3

UNIT – V

Logical connectives, truth tables, Tautology, Contradiction, Logical equivalence, Algebra of proposition.

Reference Book:

1. The Theory of Equations (Vol. I) – Burnside and Panton.

2. Higher Algebra – Barnard and Child.

3. Plane trigonometry: S.L. Loney.

4. First Course in Abstract Algebra – Fraleigh.

5. Topics in Algebra – Hernstein.

6. Test book of algebra – Leadership Project Committee (University of Bombay).

7. Elements of Abstract Algebra – Sharma, Gokhroo, saini (Jaipur Publishing House, S.M.S. Highway, Jaipur - 3).

8. Text Book of Matrix – B. S. Vaatsa.

9. A Text Book on Algebra and Theory of Equations: Chandrika Prasad, Pothishala Pvt. Ltd. Allahabad.

10. Elements of Discrete Mathematics (II Ed.): C.L. Liu. McGraw Hill.

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Shri Vaishnav Institute of Computer Applications

Name of the Program: BCA +MCA in Banking Technology

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	4	0	0	4	60	20	20	0	0

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*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.

COURSE CODE	CATEGORY	COURSE NAME	L	T	P	CREDITS	TEACHING & EVALUATION SCHEME				
							THEORY			PRACTICAL	
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BCCA103	Compulsory	PC-Software	4	0	0	4	60	20	20	0	0

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

Spreadsheet: 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.

Text Books:
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

Reference Book:
1. Microsoft Office – Complete Reference – BPB Publication.

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							THEORY			PRACTICAL	
							END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*
BCCA107	Compulsory	PC-Software Lab- Office Tools	0	0	4	2	0	0	0	30	20

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- 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

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							END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*
BCCA107	Compulsory	PC-Software Lab- Office Tools	0	0	4	2	0	0	0	30	20

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

Text Books:
1. KanitkarYashwant, 'Let us C', BPB New Delhi
2. Balaguruswami, 'Ansi C', TMH, Delhi
3. Kerninghan& Ritchie "The C programming language", PHI
4. Cooper Mullish "The Spirit of C", Jaico Publishing House, Delhi

Reference Book:
1. Schildt "C: The Complete reference" 4th ed TMH.