



Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

SEMESTER- I

Name of Program: B.Sc.(Hons.) (Digital & Cyber Forensics)

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
BSFSN101	Compulsory	Introduction to Forensic Science	60	20	20	30	20	4	0	2	5

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

*Teacher Assessment shall be based upon following components: Quiz / Assignment / Project / Participation in Class, given that no component shall exceed more than 10 marks

Course Objectives: The course aims to provide the students with-

1. The historical aspects of forensic science.
2. The fundamental principles and functions of forensic science.
3. The divisions in a forensic science laboratory.
4. The working of the forensic establishments in India and abroad.

Course Outcomes: After studying this course, the students will-

1. Be able to understand the principles of forensic science.
2. Be able to develop the knowledge of various domains of forensic science.
3. Be familiar to the organizational setup of forensic science laboratories in India.
4. Be able to understand the importance of the various government organizations working in the field of forensic science.

Unit I: History of Forensic Science

Definitions, concepts and Scope of forensic science, Branches of forensic science, Functions of forensic science, Historical aspects of forensic science and its development in India, Need of forensic science, Basic principles of forensic science, Frye case and Daubert standard.

Unit II: Scene of Crime

Definition of Scene of Crime (SOC), Types of scene of crime-Indoor, outdoor and Mobile. Protection of SOC, preservation of SOC- Videography, Photography, Photogrammetry, Note making and Sketching, Different methods of sketching of SoC.

Unit III: Physical Evidences

Physical evidences-definition and types, Class & individual characteristics of physical evidences, Different search methods for locating physical evidences at scene of crime. Handling of physical evidences-preservation, packing, Labelling, transportation & forwarding of the various evidences. chain of custody.

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Unit IV: Organizational setup of Forensic Science Laboratories in India

Hierarchical setup of Central Forensic Science Laboratories, State Forensic Science Laboratories, Government Examiners of Questioned Documents, Fingerprint Bureaus, National Crime Records Bureau, Bureau of Police Research & Development, Directorate of Forensic Science and Mobile Crime Laboratories,

Unit V: Development of Forensic Science

Police & Detective Training Schools, Police Academies, Police dogs, Services of crime laboratories. Forensic science in international perspectives including setup of INTERPOL and FBI, Duties of forensic scientists, Code of conduct for forensic scientists, Qualifications of forensic scientists, Data depiction, Report writing.

List of Practicals:

1. To review the sections of forensic science at INTERPOL and compare with those in Central Forensic Science Laboratories in India. Include suggestions for improvements if any.
2. To study the annual reports of National Crime Records Bureau and depict the data on different type of crime cases by way of smart art/templates.
3. To write report on different type of crime cases.
4. To examine the hierarchical setup of different forensic science establishments and suggest improvements.
5. To examine the list of projects undertaken by the Bureau of Police Research and Development and suggest the thrust areas of research in Police Science.
6. To compare the code of conduct prescribed by different establishments for forensic scientists.

Suggested Readings:

1. B.B. Nanda and R.K. Tiwari, *Forensic Science in India: A Vision for the Twenty First Century*, Select Publishers, New Delhi (2001).
2. M.K. Bhasin and S. Nath, *Role of Forensic Science in the New Millennium*, University of Delhi, Delhi (2002).
3. S.H. James and J.J. Nordby, *Forensic Science: An Introduction to Scientific and Investigative Techniques*, 2nd Edition, CRC Press, Boca Raton (2005).
4. W.G. Eckert and R.K. Wright in *Introduction to Forensic Sciences*, 2nd Edition, W.G. Eckert (ED.), CRC Press, Boca Raton (1997).
5. R. Saferstein, *Criminalistics*, 8th Edition, Prentice Hall, New Jersey (2004).
6. W.J. Tilstone, M.L. Hastrup and C. Hald, *Fisher's Techniques of Crime Scene Investigation*, CRC Press, Boca Raton (2013).

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SEMESTER- I

Name of Program: B.Sc.(Hons.) (Digital & Cyber Forensics)

Course Code	Category	Course Name	Teaching & Evaluation Scheme								
			Theory			Practical		L	T	P	Credits
			End Sem University	Two Term Exam	Teacher Assessment*	End Sem University exam	Teacher Assessment*				
BSDFN101	Compulsory	Introduction to Digital Forensics	60	20	20	30	20	5	0	0	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 10marks.

Course Objectives: The course aims to provide the students with-

1. The basic concepts of digital forensics.
2. The legal aspects of digital forensics
3. The Handling of Digital Crime Scene

Course Outcomes: After studying this course, the students will-

1. Be able to explain how to conduct a digital forensics investigation, including the concept of the chain of evidence.
2. Be able to understand report findings from digital forensic investigations.
3. Be able to perform recovery of digital evidence from various digital devices using a variety of software utilities.

UNIT-I

Foundations of Digital Forensics, Digital Evidence, Increasing Awareness of Digital Evidence, Digital Forensics: Past, Present, and Future, Principles of Digital Forensics, Challenging Aspects of Digital Evidence.

UNIT-II

Forensic Tools, Forensic hardware, Hardware write/blockers, hard drive acquisitions, processing the scene, Forensic Software-Overview of different software packages, Introduction to EnCase.

UNIT-III

Conducting Digital Investigations-Digital Investigation Process Models, Digital Investigations, Applying the Scientific Method in Digital Investigations.

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UNIT-IV

Handling a Digital Crime Scene- Published Guidelines for Handling Digital Crime Scenes, Fundamental Principles, Authorization, preparing to Handle Digital Crime Scenes, Preserving the Digital CrimeScene

UNIT-V

Email Tracing, Hexadecimal Numbering System & File Signature Analysis, Hash Analysis, Hashing files, Hash Libraries.

Suggested Readings:

1. C.Altheide&H.CarveyDigitalForensicswithopenSourceTools,syngress,2011.I SBN: 9781597495868.
2. Guide to Computer Forensics and Investigations 5th Edition, Nelson, Phillips, Steuart, Cengage Learning,2015
3. System Forensics Investigation and Response, 2nd edition, Chuck East tom ,Jones& Bartlett Learning, 2014 ISBN 13:978-1284073942
4. Casey, E. (2011). Digital evidence and computer crime: forensic science, computers and the Internet. AcademicPress.
5. Vacca, J. R. (2010). Computer forensics: computer crime scene investigation. Jones and BartlettPublishers.
6. Kruse II, W. G., &Heiser, J. G. (2001). Computer forensics: incident response essentials PearsonEducation.
7. Nelson, B., Phillips, A., &Steuart, C. (2014). Guide to computer forensicsand investigations. CengageLearning.
8. Solomon, M. G., Rudolph, K., Tittel, E., Broom, N., & Barrett, D. (2011). Computer forensics jumpstart. John Wiley &Sons.

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COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME					L	T	P	CREDITS
			THEORY		PRACTICAL						
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
BTCS102N	DC	Principles of 'C' Language	60	20	20	30	20	2	0	2	3

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

Course Educational Objectives (CEOs):

The student will have ability to:

1. Identify situations where computational methods and computers would be useful.
2. Given a computational problem, identify and abstract the programming task involved.
3. Approach the programming tasks using techniques learned and write pseudo-code.
4. Choose the right data representation formats based on the requirements of the problem.
5. Use the comparisons and limitations of the various programming constructs and choose the right one for the task in hand.
6. Write the program on a computer, edit, compile, debug, correct, recompile and run it.
7. Identify tasks in which the numerical techniques learned are applicable and apply them to write programs, and hence use computers effectively to solve the task.

Course Outcomes (COs):

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

The students will be able to

1. Understand the basic terminologies used in computer programming.
2. Proficient in using the basic constructs of C, to develop a computer program.
3. Understand the use of functions, pointers, arrays and files in programming.
4. Understand the fundamentals of procedure-oriented programming and be able to apply it in computer program development.

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Syllabus:

- UNIT I Introduction to Programming Languages:** Evolution of Programming Languages, Structured Programming, The Compilation Process, Object Code, Source Code, Executable Code, Operating Systems, Interpreters, Linkers, Loaders, Fundamentals Of Algorithms, Flowcharts. **7HRS**
- UNIT II Introduction to 'C' Language:** Character Set. Variables and Identifiers, Built-In Data Types. Variable Definition, Arithmetic Operators and Expressions, Constants And Literals, Simple Assignment Statement, Basic Input/ Output Statement, Decision Making Within A Program, Conditions, Relational Operators, Logical Connectives, If Statement, If-Else Statement, Loops: While Loop, Do While, For Loop. Nested Loops, Switch Statement. **10HRS**
- UNIT III Arrays and Pointers:** Array Manipulation; Searching, Insertion, Deletion of an Element from an one dimensional Array; Finding the Largest/Smallest Element in an Array; Two Dimensional Arrays, Addition/Multiplication of Two Matrices, Transpose of a Square Matrix, Address Operators, Pointer Type Declaration, Pointer Assignment, Pointer Initialization, Pointer Arithmetic, Pointer Arrays. **8HRS**
- UNIT IV Functions:** Modular Programming and Functions, Prototype of a Function: Parameter List, Return Type, Function Call, Block Structure, Call by Reference, Call by Value, Recursive Functions and Arrays as Function Arguments **7HRS**
- UNIT V Structure:** Structure Variables, Initialization, Structure Assignment, Structures and Arrays: Arrays of Structures. **8HRS**

Text Books:

1. Gottfried BS – Programming with C, TMH publications.
2. David Griffiths, “Head First C: A Brain-Friendly Guide” O Reilly Media Inc. 2011.
3. Allen B. Tucker, “Programming Languages”, Tata McGraw Hill.
4. Tennence W.Pratt, “Programming languages design and implementation”, Prentice Hall of India.

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References:

1. Herbert Schildt “C: Complete Reference”, Tata McGraw Hill 2000.
2. Yashwant Kanetkar, “Let us C”, BPB Publication, 16th Edition 2018.
3. Fundamentals of Programming Languages, R. Bangia, Cyber Tech .
4. Greg Perry and Dean Miller, “C Programming Absolute Beginner’s Guide 3rd Edition”, Que Publishing 2013.

List of Experiments:

1. Write a C program to display “This is my first C Program”.
2. Write a C program to calculate area and circumference of a circle.
3. Write a C program to perform addition, subtraction, division and multiplication of two numbers.
4. Write a program to calculate simple and compound interest.
5. Write a program to swap values of two variables with and without using third variable.
6. Write a program to display the size of every data type using “sizeof” operator.
7. Write a program to illustrate the use of unary prefix and postfix increment and decrement operators.
8. Write a program to input two numbers and display the maximum number.
9. Write a program to find the largest of three numbers using ternary operators.
10. Write a program to find the roots of quadratic equation.
11. Write a program to input name, marks of 5 subjects of a student and display the name of the student, the total marks scored, percentage scored and the class of result.
12. Write a Program to Check Whether a Number is Prime or not.
13. Write a program to find the largest and smallest among three entered numbers and also display whether the identified largest/smallest number is even or odd.
14. Write a program to find the factorial of a number.
15. Write a program to check number is Armstrong or not.
 - a. (Hint: A number is Armstrong if the sum of cubes of individual digits of a number is equal to the number itself).
16. Write a program to check whether a number is Palindrome or not.
17. Write a program to generate Fibonacci series.
18. Write a program to find GCD (greatest common divisor or HCF) and LCM (least common multiple) of two numbers.
19. Write a Program to Search an element in array.
20. Write a Program to perform addition of all elements in Array.
21. Write a Program to find the largest and smallest element in Array.
22. Write a Program for deletion of an element from the specified location from Array.

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23. Write a Program to access an element in 2-D Array.
24. Write a program for addition of two matrices of any order in C.
25. Write a Program to multiply two 3 X 3 Matrices.
26. Write a program to add, subtract, multiply and divide two integers using user-definedtype function with return type.
27. Write a program to generate Fibonacci series using recursive function.
28. Write a program to find the sum of all the elements of an array using pointers.
29. Write a program to swap value of two variables using pointer.
30. Write a program to add two numbers using pointers.
31. Write a program to input and print array elements using pointer.
32. Write a program to create a structure named company which has name, address, phone and noOfEmployee as member variables. Read name of company, its address, phone and noOfEmployee. Finally display these members" value.
33. Write a program to read RollNo, Name, Address, Age & average-marks of 12 students in the BCT class and display the details from function.
34. Write a program to add two distances in feet and inches using structure

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COURSE CODE	CATE GORY	COURSE NAME	TEACHING & EVALUATION SCHEME					L	T	P	CREDITS
			THEORY		PRACTICAL						
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
BTCS103N	DC	Computer System Organization	60	20	20	30	20	2	0	2	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

***Teacher Assessment** shall be based following components: Quiz/Assignment/

Project/Participation inClass, given that no component shall exceed more than 10 marks.

Course Educational Objectives (CEOs):

1. To understand the basic model of a modern computer with its various processing units.
2. To impart knowledge on CPU and it's processing of programs.
3. To provide the information for hardware utilization methodology.
4. To impart knowledge of Multiprocessor and inter-process communication.

Course Outcomes (COs):

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

The students will be able to:

1. Understand the architecture of a modern computer.
2. Explain the functional behavior of CPU and its other processing units.
3. Knowledge of the Peripherals of a Computer System.
4. Give the information to speed-up the working of Computer System.

Syllabus

Unit-I

10HRS

Computer Basics: Von Newman model, CPU, Memory, I/O, Bus, Memory registers, Program Counter, Accumulator, Instruction register, Micro-operations, Register Transfer Language, Instruction cycle, Instruction formats and addressing modes.

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Unit-II

9HRS

Control Unit Organization: Hardwired control unit, Micro-programmed control unit, Control Memory, Address Sequencing, Micro Instruction formats, Micro program sequencer, Microprogramming. **Arithmetic and Logic Unit:** Arithmetic Processor, Addition, subtraction, multiplication, and division, Floating point, and decimal arithmetic.

Unit-III

8HRS

Input Output Organization: Modes of data transfer – program controlled, interrupt driven and direct memory access, Interrupt structures, I/O Interface, Asynchronous data transfer, I/O processor, Data transferring approaches and modes.

Unit-IV

7HRS

Memory organization: Memory Hierarchy, Cache Memory - Organization and types of cache mappings, Virtual memory, Memory Management Hardware.

Unit-V

8HRS

Multiprocessors: Pipeline and Vector processing, Instruction and arithmetic pipelines, Vector and array processors, Interconnection structure and inter-processor communication.

Text Books:

1. M. Morris Mano, Computer System Architecture, Fourth edition, Pearson Education, 2015.
2. William Stallings, Computer Organization and Architecture, Seventh Edition, PHI, 2009.
3. Andrew S. Tanenbaum, Structured Computer Organization, Sixth Edition, Pearson Education, 2016.
4. John P. Hayes, Computer Architecture and Organizations, Third edition, Mc-Graw Hills, NewDelhi, 2017

References:

1. John L. Hennessy and David A. Patterson, Computer Architecture a quantitative approach, Fourth Edition, Elsevier, 2007.
2. Ramesh Gaonkar, Microprocessor Architecture, Programming and Applications with 8085, fifth Edition, Prentice Hall, 2015.
3. Nicholas Carter, Computer Architecture (Schaum's), Third Edition, TMH, 2012.
4. Carl Hamacher, Computer Organization, Fifth Edition, TMH, 2002.

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List of Experiments:

1. Study of peripherals, components of a Computer System.
2. Write a C program for sum of two binary numbers.
3. Write a C program for multiplication of two binary numbers.
4. Write a C program to implement Booth's algorithm for multiplication.
5. Write a C program to implement Restoring Division Algorithm.
6. Write the working of 8085 simulator GNUsim8085 and basic architecture of 8085 along with small introduction.
7. Study the complete instruction set of 8085 and write the instructions in the instruction set of 8085 along with examples.
8. Write an assembly language code in GNUsim8085 to implement data transfer instruction.
9. Write an assembly language code in GNUsim8085 to store numbers in reverse order in memory location.
10. Write an assembly language code in GNUsim8085 to add two 8 bit numbers stored in memory and also storing the carry.

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Course Code	Category	Course Name	Teaching & Evaluation Scheme								
			Theory			Practical		L	T	P	Credits
			End Sem University	Two Term Exam	Teacher Assessment*	End Sem University exam	Teacher Assessment*				
BSDFN102	Compulsory	Lab-I (Digital Forensics Lab)	0	0	0	30	20	0	0	4	2

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 10marks.

Course Educational Objectives (CEOs):

1. To provide the practical knowledge of data recovery using various digital forensic tools.
2. To develop an understanding how forensic imaging carried out and its analysis
3. To explain various tools and its importance in digital forensic investigation process.

Course Outcomes (COs): Students will be able to

1. To create forensic image of all secondary storage devices.
2. To recover lost data from secondary storage devices.
3. To understand public key cryptography working and its importance in data security.
4. To understand email tracing process .
5. To able to perform collection and seizure of digital evidence.

List of practicals:

1. To recover data from any hard disk
2. To study different methods of encryption and decryption
3. To trace any e-mail and further examination
4. To perform cache forensics using NetScan Tool.
5. To perform forensic imaging using FTK imager
6. To perform file signature using Winhex
7. To perform autopsy forensics
8. To perform write-blocker using Winhex
9. To collection and seizure of magnetic media

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Suggested Readings:

1. C.Altheide&H.CarveyDigitalForensicswithopenSourceTools,syngress,2011.I SBN: 9781597495868.
2. Guide to Computer Forensics and Investigations 5th Edition, Nelson, Phillips, Steuart, Cengage Learning,2015
3. System Forensics Investigation and Response, 2nd edition, Chuck East tom ,Jones& Bartlett Learning, 2014 ISBN 13:978-1284073942
4. Casey, E. (2011). Digital evidence and computer crime: forensic science, computers and the Internet. AcademicPress.
5. Vacca, J. R. (2010). Computer forensics: computer crime scene investigation. Jones and BartlettPublishers.
6. Kruse II, W. G., &Heiser, J. G. (2001). Computer forensics: incident response essentials PearsonEducation.
7. Nelson, B., Phillips, A., &Steuart, C. (2014). Guide to computer forensicsand investigations. CengageLearning.
8. Solomon, M. G., Rudolph, K., Tittel, E., Broom, N., & Barrett, D. (2011). Computer forensics jumpstart. John Wiley &Sons.

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							END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*
BCCA107	Compulsory	Lab-II (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):

1. To provide the knowledge of using different software packages including word processor, electronic spreadsheet, presentation s/w
2. To develop an understanding of database management system
3. To explain how to integrate the data stored in word processor, spreadsheet etc.
4. To develop presentation skills using these software.

Course Outcomes (COs): Students will be able to

1. To create simple word documents and to format them using various tools available
2. To create tables and to use various tools
3. To use mail merge, labels
4. Creating spreadsheet for storing and managing data using functions
5. Format, print spreadsheet
6. Create power point presentation for different purposes using objects, animation
7. To store and manipulate data stored in databases.
8. 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 breaksetc. 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.

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

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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SEMESTER- I

Name of Program: B.Sc.(Hons.) (Digital & Cyber Forensics)

SUBJECT 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*
HU101	SOC.SC., ARTS & HUM	Foundation English I	3	0	2	4	60	20	20	-	50

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

*Teacher's Assessment shall be based upon 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 be able to:

- Develop the second language learners' ability to enhance and demonstrate LSRW Skills.
- To acquire English Language Skills to further their studies at advanced levels.
- To become more confident and active participants in all aspects of their undergraduate programs

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

- Have confidence in their ability to read, comprehend, organize, and retain written information.
- Write grammatically correct sentences for various forms of written communication to express them.

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.

UNIT II

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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 Note-Taking, General Principles of Good Notes. Drafting: Notices, Agenda and Minutes. Advertisement: Importance, Types, Various Media of Advertising. Slogan Writing.

Practical:

- 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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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). Newyork: 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 ProfessionalPublishing.

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