11	VIII	DSE404	Web Programming –XI
12	VIII	DSE405	Web Programming –XII

(Note: Subject titles of Full Stack Development will be declared at the beginning of Semester-III)

SEMESTER –I

BCA-I-Sem-I(NEP 2.0)

MATHEMATICS FOUNDATION TO COMPUTER SCIENCE - I

CC101

Course Outcomes	CO1: Provide a basic understanding of fundamental mathematical concepts such as sets,functions, matrix algebra, and discrete mathematics. CO2: This course enables the students to use mathematical models and techniques to analyzeand understand problems in computer science. CO3: This course demonstrates how the mathematical principles give succinct abstraction ofcomputer science problems and help them to efficiently analyze.

Total Hours of Teaching : 60	**Lecture**	**Tutorial**	**Practical**	**Total Per Week**	**Credit Points : 4**
	4	**0**	**0**	**4**	
Total Marks :100	**External Exam Theory : 80**				**Internal : 20**

Syllabus Contents:

Unit: I	**Set, Relation and Function:** Set, Set Operations, Properties of Set operations, Subset, Venn Diagrams, Cartesian Products. Relations on a Set, Properties of Relations, Representing Relations using matrices and digraphs, Types of Relations, Equivalence Relation, Equivalence relation and partition on set, Closures ofRelations. Functions, properties of functions (domain, range), composition of functions, surjective (onto), injective (one-to-one) and bijective functions, inverse of functions. Exponential and Logarithmic functions, Polynomial functions, Ceiling and Floor functions.	15 Hours
Unit: II	**Counting and Recurrence Relation:** Basics of counting, Pigeonhole principle, permutation, combination, Binomial coefficients, Binomial theorem. Recurrence relations, modelling recurrence relations with examples, like Fibonacci numbers, the tower of Hanoi problem	15 Hours
Unit: III	**Elementary Graph Theory:** Basic terminologies of graphs, connected and disconnected graphs, subgraph, paths and cycles,complete graphs, digraphs, weighted graphs, Euler and Hamiltonian graphs	15 Hours
Unit-IV	**Matrix Algebra:** Types of matrices, algebra of matrices–addition, subtraction, and multiplication of matrices, determinant of a matrix, symmetric and skew-symmetric matrices, orthogonal matrix, inverse of a matrix	15 Hours
Text Books:	1. Garg, Reena, Engineering Mathematics, Khanna Book Publishing Company, 2024.(AICTE Recommended Textbook) 2. Garg, Reena, Advanced Engineering Mathematics, Khanna Book Publishing Company,2023. 3. Kolman B., Busby R. and Ross S., Discrete Mathematical	

	Structures, 6th Edition,Pearson Education, 2015. 4. Deo Narsingh, Graph Theory with Application to Engineering and Computer Science,Prentice Hall, India, 1979. 5. Vasishtha A. R. and Vasishtha A. K., Matrices, Krishna Prakashan, 2022.
Reference Books:	1. Grimaldi Ralph P. and Ramana B. V., Discrete and Combinatorial Mathematics: AnApplied Introduction, Fifth Edition, Pearson Education, 2007. 2. Rosen Kenneth H. and Krithivasan Kamala, Discrete Mathematics and its Applications,McGraw Hill, India, 2019. 3. West Douglas B., Introduction to Graph Theory, Second Edition, Pearson Education,2015
Web Resources	1. https://nptel.ac.in/courses/106103205 2. https://nptel.ac.in/courses/111101115

BCA-I-Sem-I(NEP 2.0)

PROBLEM SOLVING TECHNIQUES

SEC101

Course Objectives	CO1: Understand basic terminology of computers, problem solving, programming Languages and their evolution (Understand) CO2: Create specification from problem requirements by asking questions to disambiguate the requirement statement. (Create) CO3: Design the solution from specification of a problem and write pseudo code of the algorithm using basic building blocks or structured programming constructs (Sequence, Selection and Repetition statement). (Create) CO4: Translate an algorithm into a C computer program (Create) CO5: Testing and analyzing programs using debugging tools. (Analyze)

Total Hours of Teaching : 45	**Lecture**	**Tutorial**	**Practical**	**Total Per Week**	**Credit Points : 5**
	3	**0**	**4**	**7**	
Total Marks :75	**External Exam Theory : 60**				**Internal : 15**
Practical : 50	**External Exam. Practical:50**				

Syllabus Contents:

Unit: I	**(CO-1,CO-2)** Problems And Problem Instances, Generalization and Special Cases, Types of Computational Problems, Classification of Problems, Analysis of Problems, Solution Approaches, Algorithm Development, Analysis of Algorithm, Efficiency, Correctness, Role of Data Structures in Problem Solving, Problem-Solving Steps (Understand the Problem, Plan, Execute, And Review),Breaking the Problem into Sub problems Input / Output Specification, Input Validation, Pre and Post Conditions.	12 Hours
Unit: II	*(CO-2,CO-3, CO-4)* Structured Programming Concepts: Sequence (Input/Output/Assignment), Selection (If, If-Else) And Repetition (For, While, Do-While) Statements,	11 Hours

	Control Structure Stacking and Nesting. Different Kinds of Repetitions : Entry Controlled, Exit Controlled, Counter Controlled, Definite, Indefinite and Sentinel-Controlled Repetitions. Pseudocode and Flowcharts. Definition And Characteristics of Algorithms, Standard Algorithm Format. Problems Involving Iteration and Nesting: Displaying Different Patterns and Shapes Using Symbols and Numbers, Generating Arithmetic and Geometric Progression, Fibonacci and Other Sequences,. Different Kinds of Data in The Real World and How They are Represented in The Computer Memory. Representation of Integers: Signed Magnitude Form, 1's Complement And 2's Complement. Representation of Real Numbers: IEEE 754 Floating Point Representation. Representation of Characters: ASCII, UNICODE. C Language : Introduction To Programming Languages, Different Generations of Programming Languages. Typed Vs Typeless Programming Languages, History of C Language ,An Empty C Program. C Language Counterparts For Input (scanf()), Output (printf()) Statements, Assignment, Arithmetic, Relational and Logical Operators. If, If-Else Statements, For, While, Do-While Statements. Data Types. Translating Pseudocode/Algorithm to C Program. Incremental Compilation and Testing of The C Program. Simple Problems Involving Input, Output, Assignment Statement, Selection and Repetition. Good Coding Practices.	
Unit: III	(CO-2,CO-3,CO-4) Problems on Numbers: Extracting Digits of a Number (Left to Right and Right to Left), Palindrome, Prime Number, Prime Factors, Amicable Number, Perfect Number, Armstrong Number, Factorial, Converting Number from One Base to Another. Statistics (Maximum, Minimum, Sum and Average) on a Sequence of Numbers which are Read using Sentinel- Controlled Repetition using only a few Variables. C Language: else-if Ladder, switch Case, Increment/Decrement Operators, break and continue Statements	11 Hours
Unit-IV	*(CO-2,CO-3, CO-4,CO-5)* Modular Programming, Top- Down and Bottom-Up Approaches to Problem Solving. Recursion. Problems on Arrays: Reading and Writing of Array Elements, Maximum, Minimum, Sum, Average, Median and Mode. Sequential And Binary Search. Anyone Sorting Algorithm. Matrix Operations. C Language: Function Definition and Declaration (Prototype), Role of Return Statement, One Dimensional and Two-Dimensional Arrays. String Functions. Other Operators, Operator Precedence and Associativity. Debugging	11 Hours
Text Books:	1. Venkatesh, Nagaraju Y, Practical C Programming for Problem Solving, Khanna Book Publishing Company, 2024. 2. AICTE's Programming for Problem Solving (with Lab Manual),Khanna Book Publishing Company, 2024. 3. Harvey Deiteland Paul Deitel, C How to Program,9th edition,Pearson India,2015. 4. R G Dromey, How to Solve It by Computer.	
Reference Books:	1. Brian W. Kernighanand Dennis Ritchie,The C Programming Language,2nd edition,Pearson,2015. 2. Jeri Hanly and Elliot Koffman, Problem Solving and Program Design in C, 8th edition, Pearson, 2015.	

Problem Solving Techniques: Lab Problems

UNIT-II

1. Converting degrees Celsius to Fahrenheit and vice versa?
2. Display three input numbers in sorted (non-decreasing) order?
3. Given a positive integer value n (>= 0) display number, square and cube ofnumbers from 1 to n in a tabular format?
4. Given an input positive integer number, display odd numbers from in therange[1,n]?
5. Display first mathematical tables, each table up to 10 rows? Generalise this todisplayfirst n (> 0) mathematical tables up to m (m > 0) rows?
6. Display following patterns of n rows (n > 0), For the below examples n = 5?Foreach pattern write a separate algorithm/program?

$ $$ $$$ $$$$ $$$$$	$ $$ $$$ $$$$ $$$$$	12345 1234 123 12 1	12345 1234 123 12 1

7. Display the following patterns of n rows (n > 0), for the below examples n = 5?

Hollow square pattern: ##### # # # # # # #####	Triangle Patterns with numbers: 1 121 12321 1234321 123454321	Square with diagonals: *	Diamond Pattern * *** ***** *** *

8. Given the first term (a), difference/multiplier (d) and number of terms (n > 0),display the first n terms of the arithmetic/geometric progression?
9. Display the first n (n > 0) terms of the fibonacci sequence?
10. Display the first n (n > 0) terms of the Tribonacci sequence?
11. Given two positive integer numbers n1 and n2 check if the numbers areconsecutive numbers of the fibonacci sequence?
12. Compute approximate value of π considering first n (n > 0) terms of theTaylor series for π?
13. Compute approximate value of e^x considering first n (n > 0) terms of theTaylor series for e^x?
14. Compute approximate value of sin(x)/cos(x) considering first n (n > 0) terms of

theTaylor series for sin(x)/cos(x)?

UNIT-III

1. Extract digits of an integer number (left to right and right to left)?
2. Given a sequence of digits form the number composed of the digits. Use sentinel controlled repetition to read the digits followed by -1. For example, forthe input 2 7 32 9 -1 the output number is 27329?
3. Check if a given positive integer number is a palindrome or not?
4. Compute character grade from the marks ($0 \leq$ marks ≤ 100) of a subject. Grading Scheme: 80-100 : A, 60 - 79: B, 50 - 59: C, 40-49: D, 0-39: F? Solve this using both else-if ladder and switch case?
5. Compute the sum of a sequence of numbers entered using sentinel controlled repetition?
6. Check if a given positive integer number is a prime number or not?
7. Compute prime factors of a positive integer number?
8. Check if two positive integer numbers are amicable numbers or not?
9. Check if a given positive integer number is a perfect number or not?
10. Check if a given positive integer number Armstrong number or not?
11. Converting a positive integer number (n > 0) from one base (inputBase) to another base (outputBase) (2 <= input Base, outputBase <= 10). Input number should be validated before converting to make sure the number uses only digits allowed in the input base?
12. Write a program to display a number in text form. For example If the number is 5432the output should be "FIVE FOUR THREE TWO"?
13. Using the grading scheme described in the question 4 (UNIT III), Compute how many students awarded each grade and display the frequency as a bar chart (horizontal) usingsingle "*" for each student. Use sentinel controlled repetition (-1 as sentinel value) in reading the students marks. Use else-if ladder/switch case to compute the grade and the corresponding frequency.

    Sample bar chart when the class has 7-A, 10-B, 3-C, 7-D and 1-F grades.

    A:
    ****
    B:
    ****
    C: ***
    D:
    ****
    F: *
14. Compute maximum, minimum, sum and average of a sequence of numbers which areread using sentinel controlled repetition using only few variables?
15. Compute body mass index, BMI = weightinKGs / (HeightinMeters *HeightinMeters), Both weight and height values are positive real numbers. Your program should display BMI value followed by whether the person is Underweight, Normal, Overweight or Obese using the below ranges:
    BMI Values
    Underweight: less than

18.5Normal: >=18.5 and
<25
Overweight: >=25 and < 30
Obese: >= 30

UNIT IV

1. Design a modularized algorithm/program to check if a given positive integer numberis a circular prime or not?
2. Design a modularized algorithm/program to compute a maximum of 8 numbers?
3. Design a modular algorithm/program which reads an array of n integer elements andoutputs mean (average), range (max-min) and mode (most frequent elements)?
4. Design a modular algorithm/program which reads an array of n integer elements andoutputs median?
5. Implement your own string length and string reversal functions?
6. Design algorithm/program to perform matrix operations addition, subtractionand transpose?
7. Write a recursive program to count the number of digits of a positive integernumber?
8. Recursive solutions for the following problems:
    a. Factorial of a number?
    b. Display digits of a number from left to right (and right to left)?
    c. Compute x^y using only multiplication?
    d. To print a sequence of numbers entered using sentinel controlledrepetition inreverse order?

BCA-I-Sem-I(NEP 2.0)

COMPUTER ARCHITECTURE

CC102

Course Outcomes	After Completion of course student will be able to :- CO1: To Understand the basics of Digital Electronics and Binary Number System CO2: To Learn the implementation of Combinational Circuit. CO3: To Learn the implementation of Sequential Circuit. CO4: To Understand the Organization of basic computers and concept of memory organization

Total Hours of Teaching : 45	**Lecture**	**Tutorial**	**Practical**	**Total Per Week**	**Credit Points : 05**
	3	**0**	**4**	**7**	
Total Marks :75	**External Exam Theory : 60**				**Internal : 15**
Practical : 50	**External Exam. Practical:50**				

Syllabus Contents:

Unit: I	Digital Principles: Definition for Digital signals, Digital logic, Boolean Laws and Theorems, K-Map: Truth Tables to K-Map, 2, 3 and 4 variable K Map, K-Map Simplifications, Don't Care Conditions, SOP and POS	12 Hours
Unit: II	**Number Systems:** Decimal, Binary, Octal, Hexadecimal, Number System Conversions, Binary Arithmetic, Addition and subtraction of BCD, Octal Arithmetic, Hexadecimal Arithmetic, Binary Codes, Decimal Codes, Error detecting and correcting codes, Excess-3 Code, The Gray Code	11 Hours

Unit: III	**Combinational Circuits:** Half Adder and Full Adder, Subtractor, Decoders, Encoder,Multiplexer, Demultiplexer. Sequential Circuits: Flip-Flops- SR Flip- Flop, D Flip-Flop, J-K Flip-Flop, T Flip-Flop. Register: 4 bit register with parallel load, Shift Registers- Bidirectional shift register with parallel load. Binary Counters-4 bit synchronous and Asynchronous binary counter	11 Hours
Unit-IV	Basic computer functions and interconnections- Computer components, computer function, instruction fetch and execute, interrupts, I/O functions. Interconnection structures – Bus interconnections, point to point interconnect. , Computer Registers- Types of registers: Program Counter (PC), Accumulator (AC), Instruction Register (IR). Memory Organization: Memory Hierarchy, Main Memory, Auxiliary memory, Associate Memory, Cache Memory, Virtual Memory, Memory Management Hardware.	11 Hours
Text Books:	1. Donald P Leach, Albert Paul Malvino, Goutam Saha- "Digital Principles &Applications" , Tata McGraw Hill Education Private Limited,2011Edition. 2. M. Morris Mano- "Computer System Architecture", Pearson/Phi, Third Edition. 3. R.P.Jain "Modern Digital Electronics" 4th Edition Mc Graw Hill.	
Reference Books:	1 William Stallings- "Computer Organization and Architecture", Pearson/PHI, SixthEdition, 2 Andrew S. Tanenbaum- "Structured Computer Organization", PHI /Pearson 4th Edition, 3 M.V .Subramanyam, "Switching Theory and Logic Design", Laxmi Publications (P)Ltd. 4 Ikvinderpal Singh, Computer Organization Architecture, Khanna Book Publishing.	

Suggestive Laboratory Experiments:

1. Verify logic behavior of AND, OR, NAND, NOR, EX-OR, EX-NOR, Invert and Buffergates.
2. To study and verify NAND as a Universal Gate
3. To Convert Binary to Grey Code
4. Design and verify operation of half adder and full adder.
5. Design and verify operation of half subtractor.

Hardware

1. Familiarize the computer system layout: marking positions of SMPS, motherboard,FDD, HDD, CD, DVD and add on cards.
2. Identify the Computer Name and Hardware Specification (RAM capacity, Processor type, HDD, 32 bit/ 64 bit)
3. Configure BIOS settings- disable and enable USB and LAN
4. Adding additional RAM to the system.(expanding RAM size).
5. Install and configure windows OS
6. To study the installation of Printer and trouble shooting.

BCA-I-Sem-I(NEP2.0)
GENERAL ENGLISH
AEC102

Course Description	General English subject aims to improve basics of English language. It illustrates the minutiae of the English language and its various applications in our daily lives. It covers study about Vocabulary Building, Basic Writing Skills, Identifying Common Errors in Writing, Nature and Style of sensible Writing, Oral Communication. Students gain a solid understanding of English grammar concepts and related aspects by studying the English language.
Course Objectives	1. To provide learning environment to practice listening, speaking, reading and writing skills. 2. To assist the students to carry on the tasks and activities through guided instructions and materials. 3. To effectively integrate English language learning with employability skills and training. 4. To provide hands-on experience through case-studies, mini-projects, group and individual presentations.
Course Outcomes	After completion of course, students will be able to : 1. Explain concept of Word Formation in English Language. 2. Illustrate use of phrases and clauses in sentences in English Language. 3. Identify common errors in English Writing. 4. Develop reading and listening, writing and speaking skills.

Total Hours of Teaching: 30	**Lecture**	**Tutorial**	**Practical**	**Total Per Week**	**Credit Points : 02**
	1	**1**	**0**	**2**	
Total Marks:50	**Theory : 40**				**Internal : 10**

Syllabus Contents:

Unit: I	**A)Vocabulary Building** The concept of Word Formation, Root words from foreign languages and their use in English, Acquaintance with prefixes and suffixes from foreign languages in English to form derivatives, Synonyms, antonyms, and standard abbreviations.	8 Hours

	B)Basic Writing Skills Sentence Structures, Use of phrases and clauses in sentences, Importance of proper punctuation, Creating coherence, Organizing principles of paragraphs in documents, Techniques for writing precisely.	
Unit: II	**A) Identifying Common Errors in Writing** Subject-verb agreement, Noun-pronoun agreement, Misplaced modifiers, Articles, Prepositions, Redundancies **B) Nature and Style of sensible Writing** Describing, Defining, Classifying, providing examples or evidence, writing introduction and conclusion, Module V: Writing Practices, Comprehension, Precise Writing, Essay Writing	8 Hours
Unit: III	**Oral Communication-I** Listening Comprehension, Pronunciation, Intonation, Stress and Rhythm, Common Everyday Situations: Conversations and Dialogues, Communication at Workplace, Interviews, Formal Presentations	7 Hours
Unit: IV	**Oral Communication -II** Listening Comprehension, Pronunciation, Intonation, Stress and Rhythm, Common Everyday Situations: Conversations and Dialogues, Communication at Workplace, Interviews, Formal Presentations	7 Hours

Note: Unit-III and IV should be interactive practice sessions preferably in Language Lab.

Suggested Field Work or Practical Work

1. Exercises on Word Formation by the Addition of Prefixes and suffixes.
2. Word formation by conversion, compounding. Exercises on synonyms, antonyms.
3. Exercises on sentence structure; Phases and clauses.
4. Exercises on identifying common errors : Choosing the correct verb; Exercises on noun –pronoun exercise.

5. Exercises on modifiers ; articles , prepositions ,redundancies ; word stress , intonation

6. Exercises on writing short paragraph on given topic ; Exercise on comprehension writing.

7. Exercises on short precise writing on given topic ; short essay writing on given topic or topic of student's choice.

8. Exercise on listening and rewriting short comprehension; Exercises- group communication on given topics

BCA-I-Sem-I(NEP 2.0)

INDIAN VISION FOR HUMAN SOCIETY

MDE101

Course Description	This course will provide an overview of concept of 'Vasundhaiva Kutumbam'. It is a fundamental to know its realization process as a base for the development of vision for a human society. It helps to understand universality in human and its coexistence in existence. It helps to understand ancient knowledge system for holistic development.
Course Description	1. Understand the concept of Vasudhaiv Kutumbakam and about its realization for the development of vision for a human society. 2. Discuss the universality in humans and its co-existence in existence. 3. Classify different stages of life and its development 4. Illustrate a sense of responsibly, duties and participation of individual for establishment of fearless society. 5. Investigate programs for ensuring human purpose at individual and societal level.
Course Outcomes	After completion of course, students will be able to: 1. Explain the concept of "Vasudhaiva Kutumbkam" and its realization process as an base for the development of vision for a human society. 2. Identify the universality in humans and its coexistence in existence. 3. Demonstrate the sense of responsibility, duties, and participation of individual for establishment of fearless society. 4. Explain the apparently rational, verifiable and universal solution from ancient Indian knowledge system for the holistic development of physical, mental and spiritual wellbeing of one and all, at the level of individual, society, nation and ultimately the whole world.

Total Hours of Teaching : 30	**Lecture**	**Tutorial**	**Practical**	**Total Per Week**	**Credit Points : 02**
	2	**0**	**0**	**2**	
Total Marks:50	**Theory: 30**				**Internal: 20**

Syllabus Contents:

9. Conduct Short presentation on any given topic.

10. Arrange mock job interview

Note: *Each student should solve any 5 exercises and conduct it .Prepare report including detailed information as per guidelines and format of report given by subject teacher.*

References

1. AICTE's Prescribed Textbook: Communication Skills in English (with Lab Manual), Anjana Tiwari, Khanna Book Publishing Co.
2. Effective Communication Skills. Kul Bhushan Kumar, Khanna Book Publishing
3. Practical English Usage. Michael Swan. Oxford University Press.
4. Remedial English Grammar. F.T. Wood. Macmillan.
5. On Writing Well. William Zinsser. Harper Resource Book.
6. Chauhan/Kashiramka,Technical Communication, Cengage Learning India Pvt.Ltd.
7. Smith-Worthington/Jefferson, Technical writing for success, Cengage Learning India Pvt.Ltd.
8. Study Writing. Liz Hamp-Lyons and Ben Heasly. Cambridge University Press.
9. Communication Skills. Sanjay Kumar and Pushplata. Oxford University Press.
10. Exercises in Spoken English. Parts. I-III. CIEFL, Hyderabad. Oxford University Press

Suggested NPTEL Online Courses

- English language for competitive exams ,Prof. Aysha Iqbal ,IIT Madras
- Technical English for engineers, Prof. Aysha Iqbal ,IIT Madras

Unit: I	**The world view & Vision of Human Society** The concept of non-duality of Prakriti (Jad) and Purush (Chetana), human as coexistence of Jad & Chetan, Pancha-mahabhutas, the root of sorrow and suffering, freedom from sorrow, salvation, eternal peace truth (vyaharika satya), ultimate truth. The acceptance of various systems of philosophy for realization of truth and complementariness in society in ancient Indian system.	8 Hours

Unit: II	**Aspiration and Purpose of Individual and Human Society** Aims of Human life; at individual level and societal level. At societal level; Four purusarthas Dharma, Artha, Kama, Moksha. Individual level; Abhyudaya (progress),Nihsreyasa (perfection) Pravrtti , Nivrtti. Dharma; Dharma sutras (Gautama, Apastamba, Baudhayana, Vasistha). Dharma-Shastra; (Manusmriti, Naradamrti,Visnusmrti, Yajnavalkya Smriti) sociology, different stages of life like studenthood, householdership, retirement and renunciation, rites and duties,judicial matters, and personal laws (Aachara, Vyavahara, Prayaschitta). Artha;Kautliya Arthashastra, Kamandakiya Nitisara, Brihaspati Sutra, Sukra Niti,Moksha: Human liberation (Ignorance to Knowledge)	8 Hours
Unit: III	**Program for Ensuring Human Purpose: at Individual and Societal Level –I** Fundamental concept of Nitishastra: Satyanishtha Aur Abhiruchi (Ethics, Integrity & aptitude). The true nature of self; Shiksha Valli, Bhrigu Valli (concept of Atman-Brahman (self, soul). The true constitution of Human: Ananda Valli (Annamaya Kosha, Pranamaya Kosha, Manomaya Kosha, Vijnanamaya Kosha, Anandamaya Kosha)**.** The four states of consciousness (Waking state, Dreaming state, Deep Sleep State, Turiya the fourth state), Consciousness (seven limbs and nineteen mouths), Prajna, Awarness**.** The Life Force *Prana (*Praana-Apaana-Vyaana-Udaana- Samaana)	7 Hours
Unit: IV	**Program for Ensuring Human Purpose: at Individual and Societal Level - II** Differentiating *Vidya* and *Avidya*, human bondages, Higher and Lower Knowledge (Para Vidhya & Apara Vidhya). Concept of Sattva, Rajas, Tamas and	7 Hours

	need of balancing the same, Patanjali yog sutra; Yama, Niyama, Asanas, pranayams, pratyahara, dharna, dhyana, Samadhi, Sixteen category of padartha, pramans (pratyaksh, anuman, upaman, shabda). Saadhana chatushtayam (viveka, vairagya, mumukshatavam, shadsampathi (sama, dama, uparama, titiksha, shradha, samadhana), Understanding Nitya karma, Naimittika Karma, Kamya karma, prayaschitta karma, Nishidha Karma. Meditation and Progressive meditation (Narada's education), Ativadin to self knowledge,Jyan yog, Karma yog, sanyas yog in aspect to harmonious practice in society.	

Note: Relevant case studies based on the above units should be discussed in the class.

Suggested Field Work or Practical Work :

1. Explain practical application of 'Vasudhaiv Kutumbkam'theme in Indian culture.
2. Write detailed Essay on Vasudhaiiv Kutumbkam theme
3. Write note on composition of Panch Mahabhuta in human body and its importance.
4. Study role of 4 Purushartha in human life and prepare report on it.
5. Read the Book-Kautiya's Arthashatra and write Book Review
6. Conduct group activity on states of consciousness
7. Invite Experts in Yoga and Meditation techniques to know its importance in human life and prepare report on it
8. Arrange group presentation/activity on stages of human life
9. Write a note on 3 Gunas-Nature of Aattva,Rajas and Tamas with some examples
10. Write a note on Importance on Patanjali Yog Sutra-Yama,Niyama,Asanas

Note:

Each student should prepare report for any 5 practicals /Field work including detailed information as per guidelines and format of report given by subject teacher. Take photographs in your cell phone with prior permission during the visit to business units and discussion with people. Produce the black and white print of photographs in your report wherever possible.

References

1. Maharaj Swami chidatmanjee, Ancient Indian Society, Anmol publication Pvt.Ltd.,India
2. S. C. Manerjee, Society in Ancient India: Evolution Since the Vedic Times Based on Sanskrit, Pali, Pakrit and Other Classical Sources: No. 1 (Reconstructing Indian History and Culture), DK Printing, India
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11. Textbook on IKS by Prof. B Mahadevan, IIM Bengaluru.
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16. R C Dutt, A history of civilization in ancient India, vol 1, Taylor & Francis, US
17. R C Dutt, A history of civilization in ancient India, vol 2, Taylor & Francis, US
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19. BL Gupta,Value and disatribution system in india, Gyan publication house,India20. Reshmi ramdhoni, Ancient Indian Culture and Civilisation, star publication,2018
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23. J Auboyer, Daily Life in Ancient India from Approximately 200 BC to AD 700,Munshi ram Manoharlal publication, 1994.
24. DK Chakkrabarty, Makkhan Lal, History of Ancient India (Set of 5 Volumes),Aryan book Internation publication, 2014
25. Dr. Girish Nath Jha, Dr. Umesh Kumar Singh and Diwakar Mishra, Science and Technology in Ancient Indian Texts, DK Print World limited,
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29. Dasgupta, Surendra. A History of Indian Philosophy. Delhi: Motilal Banarsidass, 1991.Vols. III & IV.
30. Mercier, Jean L. From the Upanishads to Aurobindo. Bangalore: Asian Trading Corporation, 2001.
31. Shukla/Yadav/Chauhan,Human Values and Professional Ethics, Cengage Learning India Pvt.Ltd.

BCA-I-Sem-I(NEP 2.0) **ENVIRONMENTAL SCIENCE AND SUSTAINABILITY** **VAC101**	
Course Description	This course aims to familiarize students with fundamental environmental concepts and their relevance to business operations, preparing them to address forthcoming sustainability challenges. It is designed to equip students with the knowledge and skills needed to make decisions that account for environmental consequences, fostering environmentally sensitive and responsible future managers. The course content is divided into four comprehensive units. Unit 1 introduces basic environmental principles, the man-environment relationship, and sustainability issues. Unit 2 focuses on ecosystems, biodiversity, and sustainable practices. Unit 3 addresses environmental pollution, waste management, and sustainable development strategies. Finally, Unit 4 explores social issues, environmental legislation, and practical applications through hands-on fieldwork. Through this holistic approach, students will gain a deep understanding of environmental processes, the importance of sustainable practices, and their role in promoting sustainability within business contexts.

Course Objectives	1. To familiarize students with basic environmental concepts, their relevance to business operations, and forthcoming sustainability challenges. 2. To equip students to make decisions that consider environmental consequences. 3. To become environmentally sensitive and responsible managers.
Course Outcomes	After completion of course, students will be able to : 1. Explore the basic environmental concepts and issues relevant to the business and management field. 2. Recognize the interdependence between environmental processes and socioeconomic dynamics. 3. Determine the role of business decisions, policies, and actions in minimizing environmental degradation. 4. Identify possible solutions to curb environmental problems caused by managerial actions. 5. Develop skills to address immediate environmental concerns through changes in business operations, policies, and decisions.

Total Hours of Teaching : 30	**Lecture**	**Tutorial**	**Practical**	**Total Per Week**	**Credit Points : 02**
	2	**0**	**0**	**2**	
Total Marks:50	**Theory : 30**				**Internal : 20**

Syllabus Contents:

Unit: I	**Understanding Environment, Natural Resources, and Sustainability** Fundamental environmental concepts and their relevance to business operations; Components and segments of the environment, the man-environment relationship, and historical environmental movements. Concept of sustainability; Classification of natural resources, issues related to their overutilization, and strategies for their conservation. Sustainable practices in managing resources, including deforestation, water conservation, energy security, and food security issues. The conservation and equitable use of resources, considering both intergenerational and intergenerational equity, and the importance of public awareness and education.	8 Hours

Unit: II	**Ecosystems, Biodiversity, and Sustainable Practices** Various natural ecosystems, learning about their structure, functions, and ecological characteristics. The importance of biodiversity, the threats it faces, and the methods used for its conservation. Ecosystem resilience, homeostasis, and carrying capacity, emphasizing the need for sustainable ecosystem management. Strategies for in situ and ex situ conservation, nature reserves, and the significance of India as a mega diverse nation.	8 Hours
Unit: III	**Environmental Pollution, Waste Management, and Sustainable Development** Various types of environmental pollution, including air, water, noise, soil, and marine pollution, and their impacts on businesses and communities. Causes of pollution, such as global climate change, ozone layer depletion, the greenhouse effect, and acid rain, with a particular focus on pollution episodes in India. Importance of adopting cleaner technologies; Solid waste management; Natural and man-made disasters, their management, and the role of businesses in	7 Hours

	mitigating disaster impacts.	
Unit: IV	**Social Issues, Legislation, and Practical Applications** Dynamic interactions between society and the environment, with a focus on sustainable development and environmental ethics. Role of businesses in achieving sustainable development goals and promoting responsible consumption. Overview of key environmental legislation and the judiciary's role in environmental protection, including the Water (Prevention and Control of Pollution) Act of 1974, the Environment (Protection) Act of 1986, and the Air (Prevention and Control of Pollution) Act of 1981. Environmental justice, environmental refugees, and the resettlement and rehabilitation of affected populations; Ecological economics, human population growth, and demographic changes in India.	7 Hours
Note: Relevant case studies based on the above units should be discussed in the class.		

Suggested Field Work or Practical Work

1. A study of relationship between environment and human health.
2. A study of major environmental issues and their impacts.
3. A study of major environmental components of sustainable development.
4. A study of importance of biodiversity and threatens to the biodiversity.
5. A study of man-made activities responsible to the degradation of environment.
6. A study of environmental pollution and its impact on human being.
7. A study of plastic waste generation and its impact.
8. A study of impact of population growth, industrialization and urbanization.
9. A study of mis-use and over exploitation of natural resources.
10. A study of environmental legislations and the judiciary’s role in environmental protection.

Note:

Each students should prepare report of any 5 field work topics including detailed information after visiting to the location generating various environmental issues as per the guidelines of subject teacher.

References:

Text Books (Latest Editions)

- Poonia, M.P. *Environmental Studies* , Khanna Book Publishing Co.
- Bharucha, E. *Textbook of Environmental Studies*, Orient Blackswan Private Ltd.
- Dave, D., & Katewa, S. S. *Text Book of Environmental Studies.* Cengage Learning India Pvt Ltd.
- Rajagopalan, R. *Environmental Studies: from crisis to cure* , Oxford University Press.
- Miller, G.T. & Spoolman S. *Living in the Environment*. Cengage.
- Basu, M., & Xavier Savarimuthu, S. J. *Fundamentals of environmental studies*.Cambridge University Press.
- Roy, M. G. *Sustainable Development: Environment, Energy and Water Resources.* Ane Books.
- Pritwani, K *Sustainability of business in the context of environmental management.* CRC Press.
- Wright, R.T. & Boorse, D.F. *Environmental Science: Toward A Sustainable Future* (13th ed,). Pearson
- Odum,Fundamentals of Ecology, Cengage Learning India Pvt.Ltd.

Web links

- https://www.ourplanet.com
- https://www.undp.org/content/undp/en/home/sustainable-developmentgoals. html
- www.myfootprint.org
- https://www.globalchange.umich.edu/globalchange1/current/lectures/kling/ecosystem/ecosystem.html

BCA-I-Sem-I(NEP 2.0)
मराठी(MARATHI)-
उद्यम झेप-१
AEC103-I

Course Description	मराठी भाषा ही जगातील एक महत्त्वाची भाषा आहे आठ शतकाहून अधिक काळची समृद्ध वाङ्मयीन परंपरा मराठीतआहे .त्यामुळे मराठी भाषा व वाङ्मयीन परंपरेचे ज्ञान देणे तसेच रोजगाराधभमुख अभ्यासक्रमाची अंमलबजावणी करून धवद्यार्थ्ाांमिील भाधषक क्षमतांचा धवकास करणे हे या अभ्यासक्रमाचे उधिष्ट आहे. उद्योगिंद्यासंदभात आवश्यक माधहती व मराठी कधवतांचा समावेश करण्यात आला आहे.
Course Objectives	1. मराठी भाषा व साधहत्य अभ्यासाची रुची धनमाण करणे 2. उद्योग सुरू करण्यासाठी माधहती देणे 3. यशस्वी उद्योजकांची माधहती देणे. 4. मराठी कधवतेंचे आस्वादन करणे.

Course Outcomes	या कोसाच्या अध्ययनानंतर धवद्यार्थ्ाांना 1. मराठी भाषा व साधहत्य अभ्यासाची अधभरुची धनमााण होईल . 2. मराठी साधहत्याचे आकलन धवश्लेषण व समीक्षण करता येईल . 3. मराठी कधवतेचे आस्वादन व मूल्य धनणाय करता येईल . 4. वैचाररक व लधलत स्वरूपाचे लेखन करता येईल . 5. पत्रव्यवहाराचे कौशल्य अवगत होईल.

Total Hours of Teaching : 30	**Lecture**	**Tutorial**	**Practical**	**Total Per Week**	**Credit Points : 02**
	1	**1**	**0**	**2**	
Total Marks:50	**Theory : 40**				**Internal : 10**

Syllabus Contents:

Unit-I	**गद्य १** १. आपला ि ंदा कोणता व कसा करावा?- दादोबा पांडु रंग तरखडकर २. धहंदी उद्योगिंद्याच्या गरजा व धशक्षण प्रगतीची धदशा-महाराजा सयाजीराव गायकवाड ३. मराठी माणूस उद्योगिंद्यात मागे का?-बी जी धशके ४. ये है मुंबई मेरी जान- यशवंत थोरात	15 Hours
Unit-II	**गद्य २**	15 Hours

	१.चांदणधिकल्या- सलीम सरदार मुल्ला २.उद्याच्या सुंदर धदवसासाठी- नागनाथ कोत्तापल्ले ३.हाऊस धकपर ते यशस्वी उद्योजक- हनमंतराव गायकवाड- अंजली ठाकू र ४.लक्ष्य- राही सरनोबत	

Suggested Practical Work or Field Work:

मराठी धवषयासाठी संबंधित धवषय धशक्षकांनी अभ्यासक्रमावर आिाररत वेगवेगळे ५ प्रात्यधक्षक काम उपक्रमांच्या माध्यमातून धवद्यार्थ्ाांना द्यावे . धवद्यार्थ्ाांनी केलेल्या प्रात्यधक्षकाची माधहती ररपोिाच्या स्वरूपात सादर करावी..

साधन ग्रंथ :

१.अरुण काळे :नंतर आलेले लोक, लोकवाङ्मय गृह, मुंबई २०१०

२.नागनाथ कोत्तापल्ले :उद्याच्या सुंदर धदवसासाठी-सायन पब्लिके शन ,पुणे २०१५

३.राजन गवस ,अरुण धशंदे, गोमिेश पाीील :भाधषक सजान आधण उपायोजन, दयाा प्रकाशन, पुणे २०१२

४.वसंत जोशी (संपा): एकनाथांची धनवडक भारुडे, मेहता पब्लिधशंग हाऊस, पुणे १९९४

५.अंजली ठाकू र :असाही एक धकमयागार ,राजहंस प्रकाशन, पुणे

६.यशवंत थोरात: काही वाि्ा काही वळण, अनुबंि प्रकाशन, पुणे २०२३

७.भगवंत देशमुख (संपा):एकनाथ वाड़मयदशान, साधहत्य अकादमी,नवी धदल्ली २००३

८.सलीम मुल्ला: ऋतूफे रा, दयाा प्रकाशन, कोल्हापूर

९.नागनाथ मंजुळे :उन्हाच्या किाधवरुद्ध ,आिापि प्रकाशन ,पुणे २०१०,

१०. राही, सरनोबत: लक्षवेिी मैफल, दैधनक लोकसत्ता ,धद.२२ जाने.,२०१६

११.राहीरकर ,गो शं.,व गोसावी,र.रा (संपा): श्री सकल संत गाथा ,प्रकाशक गो.शं.राहीलकर, पुणे १९५५

१२. रमेश वरखेडे(संपा): महाराजा सयाजीराव गायकवाड भाषण संग्रह :भाग १,महाराजा सयाजीराव गायकवाड चररत्र साि्ने प्रकाशन सधमती, छत्रपती संभाजीनगर, २०१७

१३. सरदार,गं.बा.: एकनाथ दशान मॉडना बुक डेपो प्रकाशन, पुणे१९७८

१४. बी.जी. धशके : उद्योगपवा, राजहंस प्रकाशन ,पुणे,२०२३

१५. बीजी धशके : धजि, राजहंस प्रकाशन ,पुणे

संदर्भ ग्रंथ :

१.धवलास खोले,(संपा): संत जनाबाई आधण अन्य मध्ययुगीन संत कवधयत्री यांची कधवता, साधहत्य अकादमी, नवी धदल्ली २०१७

२.िनंजय गायकवाड: राही- ऑधलंधपक गोलची, झी मराठी धदशा

३.सयाजीराव गायकवाड : सयाजीराव गायकवाड यांची भाषणे, खंड १ ते ५ साके त प्रकाशन, छत्रपती संभाजीनगर

४.मोनाली गोहे:दै. लोकमत ,धद.30 ऑगस्ट २०१५

५. धव.शं. चौगुले :मुक्तगद्य, मॅजेब्लस्टक प्रकाशन, मुंबई

६.रजनीश जोशी :दादासो पांडुरंग तखाडकर :व्यब्लक्तत्व आधण कतृात्व, इंडस सोसा बुक्स, मुंबई

७.नसीराबादकर ,ल.रा.:व्यावहाररक मराठी ,भाषाधवकास संशोिन संस्था, कोल्हापूर २०२३

८.पगार, एकनाथ: महाराजा सयाजीराव गायकवाड ,महाराष्टर राज्य साधहत्य आधण संस्कृ ती मंडळ, मुंबई २०२१

९ पाि ंगणकर, धवद्यासागर: मराठी संत कवधयत्रीचं ा इधतहास, साधहत्य अकादमी ,नवी धदल्ली,२०१५

१०. महेंद्र भवरे :मराठी कधवतेच्या धदशा, लोकवाङ्मय गृह मुंबई

११. तारा भवारकर :स्त्रीमुक्तीचा आत्मस्वर, लोकवाङ्मय गृह, मुंबई

१२.भांड, बाबा :युगद्दष्टा महाराज सयाजीराव गायकवाड ,साके त प्रकाशन, छत्रपती संभाजी नगर

१३.भा.ल.भोळे (संपा):एकोधणसाव्या शतकातील मराठी गद्य,खंड १, साधहत्य अकादमी ,नवी धदल्ली २००६

१४.राही ,सरनोबत: ररओच्या पूणाधवरामाचा स्वल्पधवराम करता आला.(मुलाखत), दै. महाराष्टर ि ाइम्स, २ जून २०१९

१५. राही सरनोबतचा सुवणावेि, दै. महाराष्टर ि ाइम्स ,२३ ऑगस्ट,२०१८

१६. ररसोडकर , िनंजय:सदा सुवणावेि ी, दै. लोकसत्ता,२३ ऑगस्ट २०१८

१७. नवाक्षर दशान,(संपा. प्रवीण बांदेकर)अरुण काळे धवशेषांक, सावंतवाडी

१८. हणमंतराव गायकवाड (मुलाखत): माझा कट्टा, एबीपी माझा

BCA-I-Sem-I(NEP 2.0)

ह ंदी(HINDI) -

प्रयोजनमूलक ह ंदी और कहिताएँ

AEC103-II

पाठ्यपुस्तक- प्रयोजनमूलक धहंदी और आधुनक धहंदी साधहत्य, संपादक,
धहंदी अध्ययन मंडल, धशवाजी धवश्वधवद्यालय, कोल्हापूर

Course Description	आज धहंदी धवश्व भाषा के पद पर धवराधजत है |धहंदी अत्यंत संपन्न भाषा है |धहंदी का साधहत्य समृद्ध है |धहंदी साधहत्य से छात्रों को पररधचत कराना, प्रमुख कवी तथा साधहत्यकारों की रचना की जानकारी देना ये इस भाषा पाठ्यक्रम का मुख्य उि श है	धहंदी के धवधवि व्यावहाररक स्वरूप तथा प्रयोग ज्ञान कराना उि श रहा है	प्रस्तुत पाठ्यक्रम मे प्रयोजनमूलक धहंदी उपयोधगता और धहंदी कधवताओं की रचना का पररचय धदया गया है	
Course Objectives	1. प्रयोजनमूलक धहंदी के उपयोधगता छात्रों को पररधचत कराना	 2. धहंदी कधव एवं कहानीकारों तथा उनकी रचनाओं से पररधचत कराना	 3.धहंदी भाषा के कल्पना, धवचार ,लेखन ,श्रवण ,पठण, एवं क्षमता का छात्र मे धवकास करना	
Course Outcomes	1. प्रयोजनमूलक धहंदी के प्रधत छात्रों मे रुची बढाना | 2. प्रयोजनमूलक धहंदी एवं उसकी उपयोधगता से छात्रों को पररधचत कराना | 3. काव्य एवं कहानी धवि का आस्वाद धववेचन एवं महत्व समझाना | 4. धहंदी कधव एवं कहानीकारों तथा उनकी रचनाओं से पररधचत कराना | 5. साधहत्य के माध्यम से नैधतक मूल्य राष्ट्र ीय मूल्य एवं उधत्तदाधयत्व के प्रधत आस्था धनमाण करना | 6. धहंदी भाषा के श्रवण ,पठण, धवचार ,कल्पना एवं लेखन क्षमता का छात्र मे धवकास करना	

Total Hours of Teaching : 30	**Lecture**	**Tutorial**	**Practical**	**Total Per Week**	**Credit Points : 02**
	1	**1**	**0**	**2**	
Total Marks: 50	**Theory : 40**				**Internal : 10**

Syllabus Contents:

इकाई-I	1. धवज्ञापन का स्वरूप एवं महत्त्व 2. धवज्ञापन के अंग 3. धवज्ञापन के उि श्य 4. धवज्ञापन के क्षेत्र में रोजगार के अवसर	15 Hours
इकाई-II	**कहिताएँ** 1.आ: िरती धकतना देती है-सुधमत्रानंदन पंत 2. जीवन का झरना-आरसीप्रसाद धसंह 3. पहचान-डॉ. देवेंद्र दीपक 4. यहा थी वह नदी -मंगलेश डबराल	15 Hours

Suggested Field Work or Practical Work :

संबंधित अध्यापक धहंदी धवषय के धलए छात्रों को अलग अलग 5 कायाक्रम के माध्यम से प्रात्यधक्षक (Practical) काया पूणा करे.

संदर्भग्रंथ सूची

1. प्रयोजनमूलक धहंदी-डॉ. लक्ष्मीकांत पांडेय
2. प्रयोजनमूलक धहंदी की प्रासंधगकता एवं पररदृश्य-डॉ. सु.नागलक्ष्मी
3. प्रयोजनमूलक धहंदी-डॉ. मा िव सोनिक्के
4. प्रयोजनमूलक व्यावहाररक धहंदी -ओमप्रकाश धमत्तल
5. धवज्ञापन कला: कल, आज और कल - यशोदा भागवत(अनु .डॉ. गोधवंद गुंठे)
6. सूचना धवज्ञान के बह आयामी प्रभाव- डॉ.गोधवंद गुंठे

BCA-I-Sem-I (NEP2.0)

संस्कृत (SANSKRIT)-

AEC103-III

Course Description	संस्कृत ही एक सवात प्राचीन भाषा आहे. संस्कृत ही समृद्ध अधभजात आधण शास्त्रीय भाषा मानली जाते. अनेक प्राचीन वाङ्मय, काव्य हे संस्कृत भाषेमध्ये आढळते. प्रस्तुत अभ्यासक्रमात संस्कृत वेदांचा पररचय करून देणे ,ऋग्वेदातील धनवडक सुक्तांचा अभ्यास यांचा समावेश करण्यात आला आहे.
Course Objectives	१. वैधदककालीन िाधमाक, सामाधजक ,सांस्कृधतक,शैक्षधणक जीवनाचा.वेदांचा परिचय करून देणे. २.ऋग्वेदातील ननवडक सूक्ांचा अभ्यास किणे. ३.सूक्ातील सांकल्पना समजून घेणे. ४.आधुननकतेच्या अनुषांगाने सूक्ांचे अवलोकन किणे.
Course Outcomes	१.वेदांचा परिचय करून देतात. २. ऋग्वेदातील ननवडक सूक्ांचा अभ्यास कितात. ३.सूक्ातील सांकल्पना समजून घेतात ४.आधुननकतेच्या अनुषांगाने सूक्ांचे अवलोकन कितात.

Total Hours of Teaching: 30	**Lecture**	**Tutorial**	**Practical**	**Total Per Week**	**Credit Points : 02**
	1	**1**	**0**	**2**	
Total Marks: 50	**Theory : 40**				**Internal : 10**

Syllabus Contents:

Unit: I	वेदांचा सामान्य परिचय. (ऋग्वेद, यजुवेद ,सामवेद आनण अथववेद) वैनदककालीन धानमवक, सामानजक ,सांस्कृनतक,शैक्षनणक जीवनाचा थोडक्यात परिचय.	15 Hours
Unit: II	ऋग्वेदातील ननवडक सूक्े १.उषस् सूक्त ३.६१. २.नवश्वानमत्र – नदी सांवाद सूक्त ३.३३	15 Hours

	3.पजवन्य सूक् ५.८२ ४.धनान्नदानसूक् १०..११७	

Suggested Field Work or Practical Work :(प्रात्यहिक)

संबंधित धवषय धशक्षकांनी अभ्यासक्रमावर आिाररत वेगवेगळे 5 प्रात्यधक्षक काम उपक्रमांच्या माध्यमातून धवद्यार्थ्ाांना द्यावे . धवद्यार्थ्ाांनी कलेल्या प्रात्यधक्षकाची माधहती ररपोिाच्या स्वरूपात सादर करावी

References:

१.वैनदक सानित्यका इनतिास (ले खक –वेदाचायव डॉ.िघुवीि वेदालां कि) चौखांभा ओिीयन्तालीया ,नदल् ली.

२.ऋग्वेदसांनिता (श्रीमात्सायनाचायव नविनचत भाष्यासामेता) वैनदक सांशोधन मांडळ,पुणे,१९८४.

3.डॉ. मुळे ि्रि ,'वेद्शवन ', श्री. सांत ज्ञानेश्विवेनिद्या प्रनतष्टान , औां गाबाद. प्रथमावृत्ती२००३.

४.डॉ. चानना देविाज, 'रुग्भाष्य सांग्रि : , मुन्शिाम पब्लीशसव,नई नदल् ली.

BCA-I-Sem-I (NEP 2.0)

GERMAN

AEC103-IV

Course Description	German language is a structured curriculum created to instruct students in speaking, reading, writing, and gaining an understanding of the language. These classes include vocabulary, grammar, pronunciation, and cultural quirks, and they are designed for students at all skill levels, from absolute beginners to fluent speakers.
Course Objectives	1. To give brief introduction about German Language. 2. To study about speaking about Hobbies. Conjugation of strong verbs and revision of regular verbs. 3. To assess development in German language vocabulary by interacting with others.
Course Outcomes	After successful completion of the course, students will be able to, 1. Recognize basic grammar used in German Language 2. Demonstrate familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. 3. Execute himself /herself and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has. 4. Debate and interact in a simple way provided the other person talks slowly and clearly and is prepared to help. 5. Assess development in German language vocabulary by interacting with others 6. Construct presentation of how to use and scope of German Language.

Total Hours of Teaching : 30	**Lecture**	**Tutorial**	**Practical**	**Total Per Week**	**Credit Points : 02**
	1	**1**	**0**	**2**	
Total Marks:50	**Theory : 40**				**Internal : 10**

Syllabus Contents:

Unit-I	**A.Introduction to German Language-Level-I** Introduction of the language, Greetings, to Introduce oneself, speaking about yourself and others, Alphabets and numbers, Listening of Alphabets and numbers, Reading Information about other people and understanding simple information	15 Hours

	about them, country names and languages ,Numbers 1 to 100 and listening of numbers Personal pronouns and verb conjugation of regular verbs.	
	B.Introduction to German Language-Level-II Speaking about Hobbies. Conjugation of strong verbs and revision of regular verbs. Learning articles and genders of nouns, Singular / Plural noun forms, Learning weekdays, months and Seasons. Speaking about informal appointments Grammar: yes/no questions, Verb position in normal statements and in questions Learning Professions, reading small texts and understanding information about working days, hours, and profession	
Unit-II	**A.Demonstrative German Language-Level-I** Learning to name the famous places, buildings in a city, name the modes of transportation. Learning definite/ indefinite and negative articles in German to learn to describe the way, Imperative for Pronoun "Sie"	15Hours
	B.Demonstrative German Language-Level-II Words to speak about food, understanding food items, where one can buy what, Quantities and packing of the grocery items. Subject and object of the sentence and introduction of akkusativ case in German Conversation between shopkeeper and customer, Understanding of Grammar.	

Suggested Field Work or Practical Work :

Subject Teacher should assign any 5 practical work based on syllabus and evaluate student performance.
(e.g. Assignment, Presentation, Group activity, Role Play, Group Discussion, etc.)

Reference Books

1) Netzwerk neu A1 (Deutsch als Fremdsprach) Kursbuch : Goyal Publishers and Distributors Private Ltd.
2) Netzwerk neu A1 (Deutsch als Fremdsprach) Arbeitsbuch : Goyal Publishers and Distributors Private Ltd.
3) Netzwerkneu A1 (Deutsch als Fremdsprach) Testheft : Goyal Publishers and Distributors Private Ltd.

BCA-I-Sem-I (NEP 2.0)

JAPANESE

AEC-103-V

Course Description	Japanese is a fascinating and unique language that has been spoken for centuries. It has several unique features, including a complex writing system, complex grammar, and pronunciation. The Japanese writing system is a mixture of kanji, hiragana, and katakana. Kanji is the Chinese characters used in the Japanese language, while hiragana and katakana are syllabic scripts. Japanese grammar is also quite different from other languages, as it has a subject-object-verb word order and no articles or plurals.
Course Objectives	1. Understand and learn routine activities in Japanese language. 2. Make use of the basic grammar concepts correctly. 3. Examine development in Japanese language vocabulary by interacting with others 4. Construct presentation of how to use and scope of Japanese Language.
Course Outcomes	After successful completion of the course, students will be able to, 1. Recognize basic grammar used in Japanese Language 2. Relate and demonstrate regional languages into Japanese language. 3. Experiment Japanese vocabulary in day-today speaking. 4. Debate and interact in a simple way with other persons. 5. Develop basic Japanese language skills (listening, speaking, writing, and reading). 6. Produce himself /herself with others and can ask and answer questions.

Total Hours of Teaching : 30	**Lecture**	**Tutorial**	**Practical**	**Total Per Week**	**Credit Points : 02**
	1	**1**	**0**	**2**	
Total Marks: 50	**Theory: 40**				**Internal: 10**

Syllabus Contents:

Unit-I	**A.Introduction to Japanese Language-Level-I** •Brief history of Japan &Japanese Language, introduction of 3 scripts. Writing Hiragana alphabets & words from あ to ぜ •Writing Hiragana alphabets from た to ぽ and Daily expressions & greetings.	15 Hours
	B. Introduction to Japanese Language-Level-II	

	・Writing letters from ま to　ん and doubling of consonants and compound letters. ・Katakana alphabets from ア　to ゼ　and Numbers from 1 to 100 ・Katakana alphabets from　タ to ン and classroom expressions. ・Doubling of consonants and compound words in Katakana.	
Unit-II	**A.Demonstrative pronouns in Japanese Language-Level-I** ・Uses of demonstrative pronouns これ、それ、あれ ・Substitution for a noun ・The こ、そ、あ、ど　system of demonstrative. ・Demonstrative pronouns ここ、そこ、あそこ、どこ and their polite forms. ・Affirmation and negation in simple present tense. ・Uses of particles から、まで。	15 Hours
	B.Expressing time in Japanese Language-Level-II ・Multiples of 100, 1000, 10,000 ・Uses of particles へ、で、と、よ ・Uses of interrogative pronouns なん,　いつ、　なに	

Suggested Field Work or Practical Work

Subject Teacher should assign practical work based on syllabus and evaluate student performance.

(e.g. Assignment, Presentation, Group Activity, Role Play, Group Discussion, etc.)

Reference Books

- Minna No Nihongo I – Pub. By 3A Corporation, Japan.
- Nihongo shoho Vol. I - Pub By Japan Foundation, Tokyo, Japan
- Kanji Picture book Vol. I & II Japan Foundation.
- Sulabh Japani Vyakaran – Part-(I) Dr. V.N. Kinkar, Pune.
- Genki – Japan Times.
- Aural Comprehensions in Japanese –Osamu & Nobuko Mizutani.
- An Introduction to Modern Japanese – Osamu & Nobuko Mizutani.

- Japanese for Today – Y.Yoshida.
- Japanese Language Patterns –Alphonsa.
- Nihongo Dekimasu – Japan Foundation.
- Gokakudekiru.

BCA-I-Sem-I (NEP 2.0)

RUSSIAN

AEC-103-VI

Course Description	Russian is one of the world's most spoken languages. After English, it is the second most important world language for research publications in chemistry, physics, geology, mathematics, and the biological sciences. Russian is a language of the internet. These subject covers understanding of basic grammar in Russian language, case system in Russian.
Course Objectives	1. To study history and geography of Russia. 2. To study Russian Cyrillic script, Consonants & vowels. 3. To study greetings and common expressions, Naming Conventions in German language
Course Outcomes	After completion of this course, students will be able to: 1. Relate Russian Language to regional language. 2. Explain Russian Language skills (reading and writing). 3. Simplify Russian culture & traditions. 4. Evaluate career opportunities in Foreign Languages.

Total Hours of Teaching : 30	**Lecture**	**Tutorial**	**Practical**	**Total Per Week**	**Credit Points : 02**
	1	**1**	**0**	**2**	
Total Marks: 50	**Theory: 40**				**Internal: 10**

Syllabus Contents:

Unit-I	**Introduction to the Russian Language** • A brief introduction to history and geography of Russia. • Introduction to the Cyrillic script. The alphabet: Written and printed script. Lessons 1-5. • Consonants & vowels, the 'stress'. Reading and writing simple words. • Simple questions 'Чтоэто?' &'Ктоэто?'and answering them. Introduction to Да / Нет.Numbers. Intonation of simple affirmative and interrogative sentence. • Greetings and common expressions. Naming Conventions.	15 Hours

	• The basic vocabulary. Gender and number of Nouns.	
Unit-II	**Sentence Construction** • Personal pronouns and verb conjugation: I (e-conjugation) and II (и-conjugation). Introduction to simple sentences. Present tense. • Questions: Где? Когда?Как?Adverbs of place, time and manner. • Possessive pronouns. • Logical stress. Days of Week. Numbers from 11 to 20. • Lesson 6, 7 and 8. • The construction – 'Уменяесть'.	15 Hours

Suggested Field Work or Practical Work

Subject Teacher should assign any 5 practical work based on syllabus and evaluate student performance. (e.g. Reading, Writing & Speaking practice. Listening to audio version of lessons / dialogues, Assignment, Presentation, Group Activity, Role Play, Group Discussion, etc.)

Reference Books

1. «RUSSIAN» by V. N. Wagner & V. G. Ovsienko – Lessons 1 to 8. ,Peoples Publishing House (P) Ltd, New Delhi.
2. «Way to Russia» Elementary Level 1.1 and 1.2. V.E.Antonova & others, Goyal Publishers and Distributors Pvt. Ltd. First Indian Edition, 2012.(Selected topics)
3. «Survival Russian» A Course in Conversational Russian ,N.B. Karavanova. , Peoples Publishing House (P) Ltd, New Delhi. 2009. (Selected topics)