

AC –20.04.2024
Item No. –5.6 (N) Sem I (1a)

As Per NEP 2020

University of Mumbai



Syllabus for Basket of AEC	
Board of Studies in English	
UG First Year Programme B.Sc	
Semester	I
Title of Paper	Credits
Introduction to Communication Skills in English I	2
From the Academic Year	2024-2025

Sr. No.	Heading	Particulars
1	Description of the course: Including but Not limited to:	<p>Introduction to Communication Skills in English I</p> <p>Effective academic communication skills are essential for success in scholarly pursuits. In the academic realm, proficiency extends beyond verbal articulation to encompass precise and coherent written expression. Students are not only required to engage in thoughtful discussions and articulate complex ideas verbally but must also demonstrate their understanding through well-crafted written assignments, and presentations. Academic communication involves the mastery of scholarly conventions, such as adherence to academic writing styles, and the ability to engage in dialogue with peers and scholars. It encompasses the skillful navigation of academic discourse, fostering an environment where ideas are shared, challenged, and refined. Developing strong academic communication skills empower individuals to contribute meaningfully to intellectual conversations, enriching both their academic journey and the broader scholarly community.</p> <p>This course with its 30:20 pattern will also help in accomplishing this goal. The course is aimed at honing their cognitive, analytical, linguistic and creative skills. It is hoped that by the end of the academic year, the learners will have developed confidence in using the English language both for oral and written communication as well as develop interest in enhancing these skills later on.</p>
2	Vertical:	AEC (Ability Enhancement Course)
3	Type:	Theory
4	Credit:	2 credits (1credit=15 Hours for Theory in a semester)
5	Hours Allotted:	30Hours
6	Marks Allotted:	50Marks
7	Course Objectives:	<ol style="list-style-type: none"> 1. To cultivate a comprehensive understanding of communication skills 2. To enhance reading proficiency with a diverse range of written texts with different genres and styles of written communication. 3. To develop proficiency in grammatical accuracy with specific focus on common grammatical errors and provide targeted exercises for improvement. 4. To equip learners with proficient presentation and conversation skills by integrating practical exercises for public speaking and interpersonal communication. 5. To provide practical experience in formal writing, including Statement of Purpose (SoP) preparation.

8 Course Outcomes:

At the end of the course, learners will:

- Demonstrate an understanding of essential aspects of communication skills
- Exhibit the ability to Read a variety of written text using subskills such as skimming and scanning.
- Identify and rectify common grammatical errors in English.
- Show competence in delivering compelling presentations and engage in articulate and effective conversations in English across different contexts.
- Display advanced formal writing skills in crafting job application letters, CVs, and Statements of Purpose.

9 Modules: -

Module1: (15 Lectures)

A) Introduction to Communication Skills

- The Seven Cs of Effective Communication
- Verbal and Non-Verbal Communication
- Cross-cultural communication
- Technology-enabled Business Communication
- Features of Effective Written Communication
- Characteristics of an Effective Speech
- Effective Listening Skills

B) Reading Skills:

- Scanning a text for information
- Skimming a passage to look for main ideas, understanding text type
- Guessing meaning of an expression (word/phrase/clause)
- Building inference skills

Passages from academic, professional, and literary domains around 200- 250 words, could be chosen in this section.

C) Grammar

- Subject Verb Agreement
- Tenses
- Question Tag
- Change the Voice
- Framing Interrogative sentence
- Synonyms and Antonyms
- Misplaced modifiers

Grammar should be taught with a remedial approach so as to enable learners to avoid common errors in their written and spoken communication.

Module 2: (15 Lectures)

A) Speaking Skills in English

Conversation skills

- Opening a conversation
- Introducing oneself in various contexts
- Introducing others formally and informally

Presentation Skills

- Introduction: Essentials of Presentation skills
- Analysis of model Presentations
- Planning and Delivering the Presentation
- Developing & Displaying Visual Aids
- Handling Questions from the Audience

B) Formal Writing Skills:

- Interpreting and describing different types of visual information
- Job applications with bio data (solicited and unsolicited)
- Statement of Purpose

10 Text Books: N.A.

11 References:

- Bellare, Nirmala. *Reading & Study Strategies*. Books. 1 and 2. Oxford University Press, 1997, 1998
- Bellare, Nirmala. *Easy Steps to Summary Writing and Note-Making*. Amazon Kindle Edition, 2020
- Comfort, Jeremy, et al. *Speaking Effectively: Developing Speaking Skills for Business English*. Cambridge University Press, 1994.
- Das, Bikram K., et. al. *An Introduction to Professional English and Soft Skills*. Cambridge University Press India Pvt. Ltd., 2010
- Das, Yadjnaseni & R. Saha (eds.) *English for Careers*. Pearson Education India, 2012.
- Dimond-Bayir, Stephanie. *Unlock Level 2 Listening and Speaking Skills Student's Book and Online Workbook: Listening and Speaking Skills Student's Book+ Online Workbook*. Cambridge University Press, 2014.
- Doff, Adrian and Christopher Jones. *Language in Use* (Intermediate and Upper Intermediate). CUP, 2004.
- Glendinning, Eric H. and Beverley Holmstrom. Second edition. *Study Reading: A Course in Reading Skills for Academic Purposes*. CUP, 2004
- Goodale, Malcolm. *Professional Presentations Video Pack: A Video Based Course*. Cambridge University Press, 1998.
- Grellet, F. *Developing Reading Skills*. Cambridge: Cambridge University Press, 1981
- Grussendorf, Marion. *English for Presentations*. Oxford University Press, 2007.

- Hamp- Lyons, Liz and Ben Heasley. Second edition. *Study Writing: A Course in Writing Skills for Academic Purposes*. CUP, 2006
- Labade, Sachin, Katre Deepa et al. *Communication Skills in English*. Orient Blackswan, Pvt Ltd, 2021.
- Lewis, N. *How to Read Better & Faster*. New Delhi, Goyal Publishers & Distributors Pvt. Ltd, 2006.
- McCarthy, Michael and Felicity O'Dell. *English Vocabulary in Use*. Cambridge: Cambridge University Press, 2001.
- Mohan, RC Sharma Krishna. *Business Correspondence and Report Writing*. Third edition. Tata McGraw-Hill Education, 2002.
- Murphy, Raymond, et al. *Grammar in use: Intermediate*. Cambridge University Press, 2000
- Raman, Meenakshi, and Singh, Prakash. *Business Communication*. India, Oxford University Press, 2006.
- Richards, Jack C., and Chuck Sandy. *Passages Level 2 Student's Book*. Cambridge University Press, 2014.
- Sadanand, Kamlesh & S. Punitha. *Spoken English: A Foundation Course*. (Part 1 & 2). Orient Blackswan. 2009.
- Sasikumar, V., et al. *A Course in Listening & Speaking I*. 2005. Cambridge University Press India Pvt. Ltd. (under the Foundation Books Imprint), 2010
- Savage, Alice, et al *Effective Academic Writing*. Oxford: OUP, 2005
- Sethi, J. *Standard English and Indian usage: Vocabulary and grammar*. PHI Learning Pvt. Ltd., 2011.
- Taylor, Grant. *English Conversation Practice*. 1967. Tata McGraw-Hill, 2013
- Turton, Nigel D. *A B C of Common Grammatical Errors*. 1995. Macmillan India Ltd., 1996
- Vas, Gratian. *English Grammar for Everyone*. Mumbai, Shree Book Centre, 2015
- Watson, T. *Reading Comprehension Skills and Strategies: Level 6*. Saddleback Educational Publishing, 2002

Web link Resources:

- A conversation about household appliances: <https://youtu.be/rAPI0fSborU> 13.
- Video on psychology: Why do we dream? <https://youtu.be/2W85Dwxx218>
- Video on social media: What is a social media influencer? <https://youtu.be/39A3og7enz8>
- Tips on communication (TED Talk): The Secrets of Learning a New Language https://youtu.be/o_XVt5rdpFY
- Expressing opinions: If Cinderella Were a Guy: <https://youtu.be/p40yCNctKXg>
- Video on the English language: Where did English come from? <https://youtu.be/YEaSxhcns7Y>

12	Internal Continuous Assessment: 40%	Semester End Examination: 60%								
13	<p>Continuous Evaluation through:</p> <ul style="list-style-type: none"> • Participation in an activity based on Presentation Skills and Conversation skills each (Module 2 A) (10 marks) The class may be divided into batches by creating formal schedule for the same before the semester End Examination. • Participation in two classroom activities involving skills other than presentation and conversation skills (05 marks) • Overall attendance (05 marks) (Percentage of learners' attendance in class to be considered) <p>Suggested Activities:</p> <ul style="list-style-type: none"> ▪ Listening to audio clips/ books to enhance listening skills ▪ Reading aloud from newspapers, magazines, stories, non-fiction followed by classroom discussion on these to enhance reading and speaking skills 									
14	<p>Format of Question Paper: for the final examination</p> <table border="0" style="width: 100%;"> <tr> <td>Q.1. Short notes (2 out of 4) – On Module 1 (A)</td> <td style="text-align: right;">10 marks</td> </tr> <tr> <td>Q.2. A. Unseen Passage (200-250 words) (Module 1 B)</td> <td style="text-align: right;">06 marks</td> </tr> <tr> <td style="padding-left: 20px;">B. Questions on grammar (Module 1 C)</td> <td style="text-align: right;">04 marks</td> </tr> <tr> <td>Q. 3. Writing Skills (1 out of 2) on Module 2 (B)</td> <td style="text-align: right;">10 marks</td> </tr> </table>		Q.1. Short notes (2 out of 4) – On Module 1 (A)	10 marks	Q.2. A. Unseen Passage (200-250 words) (Module 1 B)	06 marks	B. Questions on grammar (Module 1 C)	04 marks	Q. 3. Writing Skills (1 out of 2) on Module 2 (B)	10 marks
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Q. 3. Writing Skills (1 out of 2) on Module 2 (B)	10 marks									

**Sign of BOS Chairman
Prof. Dr. Shivaji Sargar
Board of Studies in
English**

**Sign of the Offg.
Associate Dean
Dr. Suchitra Naik
Faculty of
Humanities**

**Sign of the Offg.
Associate Dean
Dr. Manisha Karne
Faculty of
Humanities**

**Sign of the Dean
Prof. Dr. Anil Singh
Faculty of
Humanities**

As Per NEP 2020

University of Mumbai



Title of the Program

Introduction to Cultural Activities

SEM I

Syllabus for Two Credit

(With effect from the academic year 2024-25)

Aims and Objectives

- To study the importance of cultural activities in India.
- To discuss the historical importance of cultural activities.
- To define and describe the overview of cultural practices at Indian and Global level.
- To list the various forms of cultural activities and its applied skills.
- To describe the role of organizations for organizing cultural activities in India.

Learning Outcomes

- Understand the significance of cultural activities
- Sensitize students towards Indian culture and its preservation
- Apply the knowledge and skills of the cultural activities in their practical life
- Participate in the various cultural activities

Modules at Glance Semester I

Module No.	Unit	Content	No. of Hours
1	I	Overview to Cultural Activities	05
	II	History of Student Cultural Activities	05
2	III	Forms / Types of Literary and Fine Arts Activities and its Applied Skills	10
	IV	Forms / Types of Performing Arts Activities and its Applied Skills	10
Total No. of Hours			30

Module No.	Unit	Content	No. of Hours
1	I	1.1 Overview to Cultural Activities <ul style="list-style-type: none">• Definition of culture and its manifestations• Understanding cultural diversity and inclusivity• The role of cultural activities in preserving heritage• Overview of Indian cultural practices• Overview of global cultural practices	05
	II	2.1 History of Student Cultural Activities <ul style="list-style-type: none">□ Role of student cultural activities□ History of student cultural activities in India	05

		<ul style="list-style-type: none"> • Role of AIU in preserving cultural heritage of India • History of student cultural activities in Maharashtra • Student Cultural activities at University of Mumbai 	
2	III	<p>3.1 Forms / Types of Literary and Fine Arts Activities and its Applied Skills</p> <p>3.1.1 Various Forms of Literary Arts</p> <ul style="list-style-type: none"> • Elocution: Reading Skills, Soft Skills, Languages, Communication Skills, etc. • Debate: Reading Skills, Soft Skills, Languages, Communication Skills, etc. • Story Writing: Introduction, Plot, Characterization, Presentation, Relevance, Language Style, etc. • Story Telling: Introduction, Plot, Characterization, Presentation, Relevance, Language Style, etc. • Quiz: General Knowledge skills <p>3.1.2 Various Forms of Fine Arts</p> <ul style="list-style-type: none"> • Painting: Visualization, Delivery of the Subject, Composition, Colour Application, Presentation and Overall Impact • Collage: Visualization, Delivery of the Subject, Handling of Medium, Composition, Presentation and Overall Impact • Poster Making: Visualization, Delivery of the Subject, Presentation, Tagline and Overall Impact • Clay Modeling: Visualization, Delivery of the Subject, Handling of Medium, Composition, Presentation and Overall Impact • Cartooning: Visualization, Delivery of the Subject, Characters, Synchronization, Colour Application, Composition, Presentation and Overall Impact • Rangoli: Visualization, Delivery of the Subject, Colour Scheme, Elements, Presentation and Overall Impact • Mehendi Designing: Originality, Creativity, Decorative Art with Aesthetic Sense, Presentation and Overall Impact 	10

		<ul style="list-style-type: none"> • Spot Photography: Impact, Composition, Technical Quality and Suitability for the Specific Theme • Installation: Visualization, Delivery of the Subject, Handling of Medium, Synchronization, Composition, Presentation and Overall Impact 	
	IV	<p>4.1 Forms / Types of Performing Arts Activities and its Applied Skills</p> <p>4.1.1 Various Forms of Dance</p> <ul style="list-style-type: none"> • Folk Dance: History and Origin of Folk Dance In India, Types and their Uniqueness, Significance of Folk Dance, Folk Dances in Maharashtra • Classical Dance: History of Classical Dance, Types and their Peculiarities, Significance of Classical Dances in India <p>4.1.2 Various Forms of Theatre</p> <ul style="list-style-type: none"> • History of Indian Theatre • Types and their Uniqueness • Significance of Indian Theatre • Various Forms of Theatre: One Act Play, Skit, Mime, Mimicry <p>4.1.3 Various Forms of Music</p> <ul style="list-style-type: none"> • History of Indian Music, • Types and their Uniqueness, • Significance of Music in India • Various Forms of Music: Classical Singing, Light Vocal, Percussion, Non-Percussion, Nattiyasangeet, Western Vocal, Western Instrumental 	10

Scheme of Evaluation

The Scheme of Examination shall be of 50 marks. It will be divided into Internal Evaluation (20 marks) and Semester End Examination (30 Marks).

Semester I (50 Marks, 2 Credits) Internal Evaluation (20 Marks)

Sr. No.	Particulars	Marks
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1	Presentation OR Project OR Assignment	15
2	Participation in Workshop / Conference / Seminar (as decided by the Teacher) OR Participation in Online Workshop / Conference / Seminar (as decided by the Teacher) OR Field Visit OR Attendance	5
Total		20

Semester End Examination (30 Marks)

Question No.	Particulars	Marks
1	Objective Type Questions (All Units)	6
2	Descriptive Question(s) on Unit I [This question may be divided into sub questions like (a) (b) for 3 Marks + 3 Marks or 4 Marks + 2 Marks pattern]	6
3	Descriptive Question(s) on Unit II [This question may be divided into sub questions like (a) (b) for 3 Marks + 3 Marks or 4 Marks + 2 Marks pattern]	6
4	Descriptive Question(s) on Unit III [This question may be divided into sub questions like (a) (b) for 3 Marks + 3 Marks or 4 Marks + 2 Marks pattern]	6
5	Descriptive Question(s) on Unit IV [This question may be divided into sub questions like (a) (b) for 3 Marks + 3 Marks or 4 Marks + 2 Marks pattern]	6
Total		30

Reference Books

- 1) Rabindranath Tagore, The Centre of Indian Culture. Rupa and Co, India, 2017.
- 2) Chopra, J. K. Indian Heritage and Culture. Unique Publisher, India, 2013.
- 3) Patnaik Devdatta, Indian Culture, Art and Heritage. Pearson, India, 2021.
- 4) Cassady Marsh, An Introduction to the Art of Theatre: A comprehensive text- Past, Present and Future. Colorado Springs, Colo, 2017.
- 5) Pingle Bhavanrav A., History of Indian Music: with particular reference to theory and practice, Dev Publishers and Distributors, India, 2021.
- 6) Popley Herbert A., The Music of India. Central Archaeological Library, New Delhi, 1921.

- 7) Tomory Edith, History of Fine Arts in India and the West. Orient Longman, Mumbai, 1989.
- 8) Arthur Schopenhauer, The Art of Literature, S. Sonnenschein and co London. 1981.
- 9) M. Keith Booker, A Practical Introduction to Literary theory and Criticism. Routledge. Michigan, 1996.
- 10) Vatsyayan Kapila, Indian Classical Dance. Publications Division, Ministry of Information and Broadcasting, Govt. of India, 1992.
- 11) Phyllia S. Weikart, Teaching folk dance: successful steps. High/Scope Press, Michigan, 1997.
- 12) Gosvami O., The story of Indian Music, its growth and synthesis. Bombay, New York, Asia Pub. House, 1961.

AC – 28.06.2024
Item No. – 8.1 (N)

As Per NEP 2020

University of Mumbai



Syllabus for Indian Knowledge System	
Board of Studies in Indian Knowledge System	
UG First Year Programme	
Semester	I OR II
Title of Paper	Credits 2 for either I or II Semester
D) Indian Knowledge System	
From the Academic Year	2024-2025

Sr. No.	Heading	Particulars
1	Description the course : Including but Not limited to :	Introduction, relevance, Usefulness, Application, interest, connection with other courses, demand in the industry, job prospects etc.
2	Vertical :	Major/Minor/Open Elective /Skill Enhancement / Ability Enhancement/Indian Knowledge System (Choose By \checkmark)
3	Type :	Theory / Practical
4	Credit:	2 credits (1 credit = 15 Hours for Theory or 30 Hours of Practical work in a semester)
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives: (List some of the course objectives)	<ol style="list-style-type: none"> 1. To sensitize the students about context in which they are embedded i.e. Indian culture and civilisation including its Knowledge System and Tradition. 2. To help student to understand the knowledge, art and creative practices, skills and values in ancient Indian system. 3. To help to study the enriched scientific Indian heritage. 4. To introduce the contribution from Ancient Indian system & tradition to modern science & Technology.
8	Course Outcomes: (List some of the course outcomes)	<ol style="list-style-type: none"> 1. Learner will understand and appreciate the rich Indian Knowledge Tradition 2. Lerner will understand the contribution of Indians in various fields 3. Lerner will experience increase subject-awareness and self-esteem 4. Lerner will develop a comprehensive understanding of how all knowledge is ultimately intertwined
9	Modules:-	
	Module 1: (10 Hours)	
		<ol style="list-style-type: none"> 1. Introduction to IKS (What is knowledge System, Characteristic Features of Indian Knowledge System) 2. Why IKS? (Macaulay's Education Policy and its impact, Need of revisiting Ancient Indian Traditions) 3. Scope of IKS (The Universality of IKS (from Micro to Macro), development form Earliest times to 18th Century CE) 4. Tradition of IKS (Ancient Indian Education System: Home, Gurukul, Pathashala, Universities and ancient educational centres) 5. Relevant sites in the vicinity of the Institute (Water Management System at Kanheri, Temple Management of Ambarnath, etc.)

Module 2: (10 Hours)			
<ol style="list-style-type: none"> 1. Medicine (Ayurveda) 2. Alchemy 3. Mathematics 4. Logic 5. Art of Governance (Arthashastra) 			
Module 3: (10 Hours) (Select Any FIVE out of the following)			
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <ol style="list-style-type: none"> 1. Aesthetics 2. Town Planning 3. Strategic Studies 4. Krishi Shastra 5. Vyakaran & Lexicography 6. Natyashastra 7. Ancient Sports 8. Astronomy </td> <td style="width: 50%; border: none;"> <ol style="list-style-type: none"> 9. Yoga and Wellbeing 10. Linguistics 11. Chitrasutra 12. Architecture 13. Taxation 14. Banking 15. Trade and Commerce </td> </tr> </table>		<ol style="list-style-type: none"> 1. Aesthetics 2. Town Planning 3. Strategic Studies 4. Krishi Shastra 5. Vyakaran & Lexicography 6. Natyashastra 7. Ancient Sports 8. Astronomy 	<ol style="list-style-type: none"> 9. Yoga and Wellbeing 10. Linguistics 11. Chitrasutra 12. Architecture 13. Taxation 14. Banking 15. Trade and Commerce
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10	Reference Books <ol style="list-style-type: none"> 1. Concise history of science in India- D.M. Bose, S.N Sen, B.V. Subbarayappa. 2. Positive sciences of the Ancient Hindus- Brajendranatha seal, Motilal Banrasidas, Delhi 1958. 3. History of Chemistry in Ancient India & Medieval India, P.Ray- Indian Chemicals Society, Calcutta 1956 4. Charaka Samhita- a scientific synopsis, P. Ray & H.N Gupta National Institute of Sciences of India, New Delhi 1965. 5. MacDonnell A.A- History of Sanskrit literature 6. Winternitz M- History of Indian Literature Vol. I, II & III 7. Dasgupta S.N & De S.K- History of Sanskrit literature Vol. I. 8. Ramkrishna Mission- cultural heritage of India Vol. I, II & III. 9. Majumdar R. C & Pushalkar A.D- History & culture of the Indian people, Vol. I, II & III. 10. Keith A.B- History of Sanskrit literature. 11. Varadachari V- History of Sanskrit literature Chaitanya Krishna- A new History of Sanskrit 		
11	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Continuous Internal Assessment: 20 Marks</td> <td style="width: 50%;">Semester End Examination : 30 Marks</td> </tr> </table>	Continuous Internal Assessment: 20 Marks	Semester End Examination : 30 Marks
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12	Continuous Evaluation through: Assignment/ Presentations/ Projects (Group/Individual) / Field Visit Report 10 Marks, class Test / MCQ Test 5 Marks, Overall Conduct and Class Participation 5 Marks		
13	Format of Question Paper: for the final examination Q1. Attempt any TWO Questions out of FIVE. 6 Marks Q2. Attempt any THREE Questions out of FIVE 12 Marks Q3. Attempt any THREE Questions out of FIFTEEN. 12 Marks		



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Chairman
Name of the BOS**

**Sign of the
Offg. Associate Dean
Name of the Associate
Dean
Faculty of Interdisciplinary Studies
Name of the Faculty**

**Sign of the
Offg. Dean
Name of the Offg. Dean
Faculty of
Interdisciplinary Studies
Name of the Faculty**

Major Courses

Name of the Course: Programming with C

Sr.No	Heading	Particulars
1	Description the course : Including but Not limited to:	This course allows the students to understand the fundamental concepts of programming which will allow them to program applications in C.
2	Vertical :	Major
3	Type :	Theory
4	Credits :	2 credits (1 credit = 15 Hours for Theory in a semester)
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives(CO): CO 1. To understand the concepts of computer programming. CO 2. To understand syntax and semantics of the C language CO 3. To understand loops and decision making in programming. CO 4. To understand the use of arrays, structures, union and pointers. CO 5. To understand functions for modular code and handle errors.	
8	Course Outcomes (OC): OC 1. Students can build flowcharts, pseudocode for C programs. OC 2. Students can use C language syntax and semantics in their programs. OC 3. Students can implement loops and decision making. OC 4. Students can use different types of data structures in their programs. OC 5. Students can write well-structured, readable, and maintainable C code and debug programs if there are any errors.	
9	Modules:- Module 1:	15 Hrs
	1. Introduction: Algorithms, History of C, Structure of C Program. Program Characteristics, Compiler, Linker and preprocessor, pseudo code statements and flowchart symbols, Desirable program characteristics. Program structure. Compilation and Execution of a Program, C Character Set, identifiers and keywords, data types and sizes, constants and its types, variables, Character and character strings, typedef, typecasting 2. Type of operators: Arithmetic operators, relational and logical operators, Increment and Decrement operators, assignment operators, the conditional operator, Assignment operators and expression, Precedence and order of Evaluation Block Structure, Initialization, C Preprocessor	
	Module 2:	

	<ol style="list-style-type: none"> 1. Control Flow: Statements and Blocks, If-Else, Else-If, Switch, Loops- While and For Loops Do-while, Break and Continue, Goto and Labels 2. Basics of functions. User defined and Library functions 3. Pointer and Addresses, Pointer and Function Arguments, Pointer and Arrays. 4. User-defined data types- structure and union 	15 Hrs
10	<p>Books and References:</p> <ol style="list-style-type: none"> 1. C Programming Language, Brian W. Kernighan, Dennis M. Ritchie , 2017 2. Let Us C, Yashvant Kanetkar, BPB Publications,2008. 3. Mastering in C, K. R. Venugopal and Sudeep R. Prasad, Tata McGraw-Hill Publications. 4. A Computer Science –Structure Programming Approaches using C, Behrouz Forouzan, Cengage Learning. 5.. Schaum’s outlines Programming with C, Byron S. Gottfried, Tata McGraw- Hill Publications. 6. Basics of Computer Science, by Behrouz Forouzan, Cengage Learning. 7. Programming Techniques through C, by M. G. Venkateshmurthy, Pearson Publication. 	
12	Internal Continuous Assessment: 40%	Semester End Examination: 60%
13	<p>Continuous Evaluation through:</p> <p>Class test of 1 of 15 marks Class test of 2 of 15 marks Average of the two: 15 marks</p> <p>Quizzes/ Presentations/ Assignments: 5 marks Total: 20 marks</p>	Format of Question Paper: External Examination (30 Marks)– 1 hr duration
14	<p>Format of Question Paper: (Semester End Examination : 30 Marks. Duration:1 hour)</p> <p>Q1: Attempt any two (out of four) from Module 1 (15 marks) Q2: Attempt any two (out of four) from Module 2 (15 marks)</p>	

Name of the Course: Database Management System

Sr.No	Heading	Particulars		
1	Description the course : Including but Not limited to:	The objective of the course is to present an introduction to fundamentals of database management systems, with an emphasis on how to organize, maintain and retrieve - efficiently, and effectively -information from a DBMS.		
2	Vertical :	Major		
3	Type :	Theory		
4	Credits:	2 credits (1 credit = 15 Hours for Theory)		
5	Hours Allotted :	30 Hours		
6	Marks Allotted:	50 Marks		
7	Course Objectives(CO):	<p>CO 1. To make students aware fundamentals of database system.</p> <p>CO 2. To give idea how ERD components helpful in database design and implementation.</p> <p>CO 3. To experience the students working with database using MySQL.</p> <p>CO 4. To familiarize the student with normalization, database protection and different DDL, DML, DQL, DCL Statements</p> <p>CO 5. To make students aware about importance of protecting data from unauthorized users.</p>		
8	Course Outcomes (OC):	<p>OC 1. Define and describe the fundamental elements of relational database management system.</p> <p>OC 2. To relate the basic concepts of relational data model, entity-relationship model, relational database</p> <p>OC 3. Design ER-models to represent simple database application scenarios.</p> <p>OC 4. Understand the normalization and its role in the database design process</p> <p>OC 5. Transform the ER-model to relational tables, populate relational database and formulate SQL</p> <p>OC 6. Understand basic database storage structures and access techniques: file and page organizations, indexing methods and hashing.</p>		
9	Modules:- Module 1:	<table border="1"> <tr> <td> <p>1. Introduction to Databases and transactions What is database system, purpose of database system, view of data, relational databases, database architecture, transaction management</p> <p>2. Data Models The importance of data models, Basic building blocks, Business rules, The evolution of data models, Degrees of data abstraction</p> <p>3. Database Design, ER-Diagram Database design and ER Model: overview, ER-Model, Constraints, ER-Diagrams, ERD Issues, Codd's rules, Relational Schemas</p> <p>4. Relational database model Logical view of data, keys, integrity rules</p> </td> <td style="text-align: center; vertical-align: middle;">15 Hrs</td> </tr> </table>	<p>1. Introduction to Databases and transactions What is database system, purpose of database system, view of data, relational databases, database architecture, transaction management</p> <p>2. Data Models The importance of data models, Basic building blocks, Business rules, The evolution of data models, Degrees of data abstraction</p> <p>3. Database Design, ER-Diagram Database design and ER Model: overview, ER-Model, Constraints, ER-Diagrams, ERD Issues, Codd's rules, Relational Schemas</p> <p>4. Relational database model Logical view of data, keys, integrity rules</p>	15 Hrs
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	Module 2:	
	<p>1. Database Design theory and normalization: Basics of functional dependencies and normalization for relational databases. Relational database design and further dependencies.</p> <p>2. SQL, Indexing: Introduction to SQL, Complex queries, triggers, views, joining database tables and schema modification. Query Processing and optimization. File structure, hashing and indexing</p> <p>3. Transaction management and concurrency control and recovery: Introduction to transaction processing concepts and theory. Concurrency control technique. Database recovery technique</p>	. 15 Hrs
10	Text Books	
	<p>1. "Fundamentals of Database System", Elmasri Ramez, Navathe Shamkant, Pearson Education, Seventh edition, 2017</p> <p>2. Database Management Systems", Raghu Ramakrishnan and Johannes Gehrke, 3rd Edition, 2014</p> <p>3. Database Systems: Design implementation and management by Carlos Coronel, Steven Morris, Peter Rob</p>	
11	Reference Books	
	<p>1. "Database System Concepts", Abraham Silberschatz, Henry F. Korth, S. Sudarshan, McGraw Hill, 2017</p> <p>2. "MySQL: The Complete Reference", Vikram Vaswani , McGraw Hill, 2017</p> <p>3. "Learn SQL with MySQL: Retrieve and Manipulate Data Using SQL Commands with Ease", Ashwin Pajankar, BPB Publications, 2020</p>	
12	Internal Continuous Assessment: 40%	Semester End Examination: 60%
13	<p>Continuous Evaluation through:</p> <p>Class test of 1 of 15 marks Class test of 2 of 15 marks Average of the two: 15 marks</p> <p>Quizzes/ Presentations/ Assignments: 5 marks Total: 20 marks</p>	Format of Question Paper: External Examination (30 Marks)– 1 hr duration
14	<p>Format of Question Paper: (Semester End Examination : 30 Marks. Duration:1 hour)</p> <p>Q1: Attempt any two (out of four) from Module 1 (15 marks)</p> <p>Q2: Attempt any two (out of four) from Module 2 (15 marks)</p>	

Name of the Course: Major Practical 1

Sr.No	Heading	Particulars
1	Description the course : Including but Not limited to:	<u>Programming with C -practical</u> This course is stepping stone to learn other languages. This course provides students hands on experiences of coding exercises and projects. <u>Database Management System's</u> practical approach is useful to gain the knowledge for software backend development. It benefits to user by providing data definition, data access, reduced data redundancy, data integrity, data sharing, data organizing, data consistency, data accuracy, and security
2	Vertical :	Major
3	Type :	Practical
4	Credits :	2 credits (60 Hours of Practical work in a semester)
5	Hours Allotted :	30 Hours (C Programming Practical) + 30 Hours(DBMS - Practical)
6	Marks Allotted:	50 Marks
7	Course Objectives(CO): CO 1. To provide exposure in developing algorithm, flowchart and to write efficient code. CO 2. To understand loops and decision making in programming. CO 3. To understand the arrays, structures, union. CO 4. To understand the use of function and pointers. CO 5. To Identify entities and its relationship with relational model structure. CO 6. To understand relational database using SQL and constraints implementation using create table queries. CO 7. To Understand DML operations and backing of database CO 8. To understand how to retrieve data from database and learn how to retrieve single value after performing calculations on group of values CO 9. To understand built-in functions to perform operations on data CO 10. To understand how to fetch data from two or more tables, which is joined to appear as single set of data CO 11. To understand nested and larger query as advanced fetching of data to understand concept of virtual table. CO 12. To understand how to control user access in a database.	

8

Course Outcomes (OC):

- OC 1. Students can demonstrate the concepts of datatypes, variables and operators in C.
- OC 2. Students can implement the concept of control statements and looping in C program.
- OC 3. Students can demonstrate the use of arrays, strings and structures in C
- OC 4. Students can implement modular C program using functions and pointers.
- OC 5. Students can demonstrate the use of arrays, strings and structures in C.
- OC 6. Students able to perform various operations such as insert, update delete and retrieve data from database using SQL queries.
- OC 7. Students able to perform alteration in tables and can restore and take backup of the database.
- OC 8. Students able to perform operations using simple SQL Queries to fetch data and learns various aggregate functions to get single value.
- OC 9. Students able to perform SQL Queries using JOIN keyword for joining two or more tables.
- OC 10. Students able to perform nested queries using in, exists operators.
- OC 11. Students able to create new table by joining one or more tables and learn how to hide attribute from end user.
- OC 12. Students able to restrict the user from accessing data in database.
- OC 13. Students should be able to create, manipulate the database management system to evaluate the business information problem.

9	<p>Module 1:- Programming with C</p> <p>1. Practical 1:-</p> <ol style="list-style-type: none"> To calculate simple interest taking principal, rate of interest and number of years as input from user. Write algorithm & draw flowchart for the same. Write a program to find greatest of three numbers using conditional operator. Write algorithm & draw flowchart for the same. Write a program to check if the year entered is leap year or not. Write algorithm & draw flowchart for the same. <p>2. Practical 2:-</p> <ol style="list-style-type: none"> Write a program to calculate roots of a quadratic equation. Write a menu driven program using switch case to perform add / subtract / multiply / divide based on the users choice. Write a program to print the pattern of asterisks. <p>3. Practical 3</p> <ol style="list-style-type: none"> Write a program using while loop to reverse the digits of a number. Write a program to calculate the factorial of a given number. Write a program to print the Fibonacci series. <p>4. Practical 4</p> <ol style="list-style-type: none"> Write a program to print area of square using function. Write a program using recursive function. Write a program to square root, abs() value using function. Write a program using goto statement . <p>5. Practical 5</p> <ol style="list-style-type: none"> Write a program to print rollno and names of 10 students using array. Write a program to sort the elements of array in ascending or descending order <p>6. Practical 6</p> <ol style="list-style-type: none"> Write a program to extract the portion of a character string and print the extracted part. Write a program to find the given string is palindrome or not. Write a program to using strlen(), strcmp() function . <p>7. Practical 7</p> <p>Write a program to swap two numbers using a function. Pass the values to be swapped to this function using call-by-value method and call-by-reference method.</p> <p>8. Practical 8</p> <ol style="list-style-type: none"> Write a program to read a matrix of size m*n. Write a program to multiply two matrices using a function. <p>9. Practical 9</p> <p>Write a program to print the structure using</p> <p style="padding-left: 40px;">Title Author Subject Book ID</p> <p>Print the details of two students.</p> <p>10. Practical 10</p> <p>Create a mini project on “Bank management system”. The program should be menu driven.</p>	30 Hrs
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	<p>Module 2</p> <ol style="list-style-type: none"> 1. Conceptual Designing using ER Diagrams (Identifying entities, attributes, keys and relationships between entities, cardinalities, generalization, specialization etc.) 2. Perform the following: <ul style="list-style-type: none"> • Viewing all databases • Creating a Database • Viewing all Tables in a Database • Creating Tables (With and Without Constraints) • Inserting/Updating/Deleting Records in a Table 3. Perform the following: <ul style="list-style-type: none"> • Altering a Table • Dropping/Truncating/Renaming Tables • Backing up / Restoring a Database 4. Perform the following: <ul style="list-style-type: none"> • Simple Queries • Simple Queries with Aggregate functions 5. Queries involving <ul style="list-style-type: none"> • Date Functions • String Functions • Math Functions 6. Join Queries <ul style="list-style-type: none"> • Inner Join • Outer Join 7. Subqueries <ul style="list-style-type: none"> • With IN clause • With EXISTS clause 8. Converting ER Model to Relational Model and apply Normalization on database. (Represent entities and relationships in Tabular form, Represent attributes as columns, identifying keys and normalization up to 3rd Normal Form). 9. Views <ul style="list-style-type: none"> • Creating Views (with and without check option) • Dropping views • Selecting from a view 10. DCL statements <ul style="list-style-type: none"> • Granting and revoking permissions • Saving (Commit) and Undoing (rollback) 	<p>30 Hrs</p>
<p>10</p>	<p>Text Books:</p> <ol style="list-style-type: none"> 1. "Fundamentals of Database System", Elmasri Ramez, Navathe Shamkant, Pearson Education, Seventh edition, 2017 . 2. Database Management Systems", Raghu Ramakrishnan and Johannes Gehrke, 3rd Edition, 2014 	
<p>11</p>	<p>Reference Books:</p> <ol style="list-style-type: none"> 1. MASTERING C, K. R. Venugopal and Sudeep R. Prasad, Tata McGraw-Hill Publications. 2. "A Computer Science –Structure Programming Approaches using C", Behrouz 	

	<p>Forouzan, Cengage Learning.</p> <p>3. Schaum's outlines "Programming with C", Byron S. Gottfried, Tata McGraw-Hill Publications.</p> <p>4. "Basics of Computer Science", Behrouz Forouzan , Cengage Learning.</p> <p>5. "Programming Techniques through C", M. G. Venkateshmurthy, Pearson Publication.</p> <p>6. "Programming in ANSI C", E. Balaguruswamy, Tata McGraw-Hill Education.</p> <p>7. "MySQL: The Complete Reference", Vikram Vaswani , McGraw Hill, 2017.</p> <p>8. "Learn SQL with MySQL: Retrieve and Manipulate Data Using SQL Commands with Ease", Ashwin Pajankar, BPB Publications, 2020.</p>	
12	<p>Internal Continuous Assessment: 40%</p>	<p>Semester End Examination: 60%</p>
13	<p>Continuous Evaluation through: Students are expected to attend each practical and submit the written practical of the previous session. Performing Practical and writeup submission will be continuous internal evaluation. 2.5 marks can be awarded for each practical performance and writeup submission totalling to 50 marks and can be converted to 20 marks.</p>	<p>30 marks practical exam of 2 hours duration</p>
14	<p>Format of Question Paper: Duration 2 hours. Certified copy of Journal is compulsory to appear for the practical examination</p> <p>Practical Slip:</p> <p>Q1. From Module 1 13 marks</p> <p>Q2. From Module 2 12marks</p> <p>Q3. Journal and Viva 05 marks</p>	

As Per NEP 2020

University of Mumbai



Syllabus for OE-1, SEM I OE (Open Elective))

Board of Studies in Logic and Philosophy

UG First Year Programme

Semester

I

Title of Paper:

Logical Reasoning

Credits

2

From the Academic Year

2024-25

Sr. No.	Heading	Particulars
1	Description the course : Including but Not limited to :	Logical Reasoning To explain the basic principles of correct reasoning and to provide students ample scope to exercise their reasoning based on the above principles. To teach students to acquire pleasures in logical thinking for social research. To familiarize the student with the principles and techniques of hypothesis. To train the student with the principles and techniques of causation techniques. To create awareness about the significance of logical thinking for academics and life in general. The study of logic gives attention to the analysis of fallacies which are common and finds often natural mistakes in reasoning.
2	Vertical :	Open Elective
3	Type :	Theory
4	Credit:	2 credits
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives: (List some of the course objectives) 1. To introduce the realm of logical reasoning and its significance to Philosophy. 2. To encourage learners to evaluate and analyse arguments and reasoning as they are important elements of thinking process. 3. To enable learners to understand the logical connections between ideas.	
8	Course Outcomes: (List some of the course outcomes) After the completion of the course, learner will: 1. Demonstrate the ability to use logical reasoning to assess day to day situations of professional and personal life. 2. Apply logical reasoning to identify fallacious reasoning and detect logical fallacies in moral, political, and scientific arguments. 3. Engage with core philosophical problems using logical reasoning ability.	

9	Modules:- Per credit One module can be created
	Module 1: Basic Logical Concepts (15 lectures)
	A. Definition, nature and scope of Logic B. Arguments, Premises and Conclusions C. Recognizing Arguments
	Module 2:Fallacies (15 lectures)
A. What is a fallacy? B. Types of fallacies C. Fallacies of Relevance	
11	Reference Books: <ol style="list-style-type: none"> 1. Irving Copi, Carl Cohen and Kenneth McMahon, Introduction to Logic 14th edition 2. Irving Copi, Carl Cohen , Introduction to Logic 11th edition, Pearson education 3. Hurley, Patrick. A Concise Introduction to Logic. 2006. Routledge, USA. 9th ed. 4. Howord, Snyder, et al, The Power of Logic, MacGrewHill, USA. 5. Gensler, Harry, Introduction to Logic. Routledge, USA. 2ND ed. 6. Walton, Douglas. Fundamentals of Critical Argumentation. 2006. Cambridge University, USA. 7. Copi, Irving M.and Carl Cohen, (1990) Introduction to Logic, New York: Macmillan Publishing Company. 8. Damer, Edward. (2005). Attacking faulty reasoning. A practical guide to fallacy free argument. Wadsworth Cengage learning, USA. 9. Fogelin, Robert, J, (1987) Understanding Arguments: An Introduction to Informal Logic, New York: Harcourt Brace Jvanovich Publisher. 10. Guttenplan, Samuel: (1991) The Language of Logic. Oxford: Blackwell Publishers 11. Simico, N.D and G.G James. (1983) Elementary Logic, Belmont, Ca: Wadsworth Publishing Company. Stephen, C. (200) The Power of Logic. London and Toronto: Mayfield Publishing Company. 12. Walelign, Emuru, (2009) Freshman Logic, Addis Ababa.
12	Internal Evaluation : 20 Marks 1-Classroom Presentations/ Assignments - 10 Marks 2-Essay Submission/ Book review/ Field Visit Report / Educational Activity Report 10 Marks

As Per NEP 2020

University of Mumbai



Syllabus for Basket of OE	
Board of Studies in Persian, Arabic, Islamic Studies	
UG First Year Programme	
Semester	I
Title of Paper	Credits
I) Social System and Family Welfare in Islam	2
From the Academic Year	2024-25

Name of the Course: Social System and Family Welfare in Islam

Sr. No.	Heading	Particulars
1	Description of the course: Including but Not limited to:	Man is a social being and every Muslim is a member of one family. Islam provides its teaching for family relations. Rights and duties of parents and children and status of women in Islam are also stipulated in Islam. This course will help the students to know Islamic social system and family welfare
2	Vertical:	Open Elective
3	Type:	Theory
4	Credit:	2 credits (1 credit = 15 Hours for Theory in a semester)
5	Hours Allotted:	30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives: To help the students to	<ol style="list-style-type: none"> 1. Describe the definition of society and social system 2. Explain Islamic solution of contemporary social crises 3. Analyze the Qur'anic verses and Hadith regarding family and marriage 4. Determine parents' and children' rights and duties 5. Prove the status of women in Islam
8	Course Outcomes: At the end of the course, learners will be able to:	<ol style="list-style-type: none"> 1. Describe definition of society and social system explain Islamic solution of the contemporary social crisis 2. Analyze the Qur'anic verses and Hadith towards the foundation of social system 3. And family welfare compare the Islamic Contemporary society 4. Describe meaning, aims and objective of family 5. Identify types of marriage and its functions 6. Describe parents and children's relationships 7. Determine parents and children rights and duties 8. Describe the concept of equality in Islam 9. Identify the status of women in Islam 10. Evaluate the significance of family as an institution
9	Modules:	
	Module 1:	(15 Lectures)
	<p>(A) Basic concept of Social System and Family Welfare:</p> <ul style="list-style-type: none"> • Definition of society and social system • Characteristics of Islamic and contemporary society • Islamic solution to contemporary social crises • A definitive study of some verses of the Quran, Hadiths and the Sunnah towards the foundation of social system and family welfare 	

	<p>(B) Social Institutions:</p> <ul style="list-style-type: none"> • Family: Meaning, aims and objective in the light of the Quran and the Sunnah • Types, functions and features, Marriage: Types and functions • Institute of Divorce 	
	<p>Module 2: (15 Lectures)</p>	
	<p>(A) Husband and Wife:</p> <ul style="list-style-type: none"> • Their role, relationships, rights and duties; <p>(B) Parents and Children:</p> <ul style="list-style-type: none"> • Their relationships, rights and duties • Right of children in the family <p>(C) The Status of women in Islam:</p> <ul style="list-style-type: none"> • Concept of equality in Islam • Concept of rights and position of women in Islam 	
10	Text Books:	N.A.
11	<p>References:</p> <ol style="list-style-type: none"> 1. Jamaal al Din M. Zarabozo, Fiqh Of Marriage In The Light Of The Qur'an And Sunnah 2. Levy R, Social Structure of Islam 3. Abdel Rahim Umran, Family Planning in the Legacy of Islam 4. A.Z.M. Shamsul Alam, Family Values. 5. M.F. Nimkoff, Marriage and the Family. 6. Muhammad Ali, The Religion of Islam 7. Dr. Hamidullah, The Muslim Conduct of State 8. Gibb, Modern Trends in Islam 9. History of Islam, Philips K Hitti 10. Life of Mohammed M. Husain Haykal 	
12	Internal Continuous Assessment: 40%	Semester End Examination: 60%
13	<p>Continuous Evaluation through:</p> <p>Class Test/ Assignment : 10 Marks</p> <p>Presentation : 05 Marks</p> <p>Classroom Participation : 05 Marks</p>	
14	<p>Format of Question Paper: for the final examination</p> <p>External/ Semester End Examination Marks: 30 Time:1 Hours</p> <p>Attempt any Two question out of Three/Four question (15 Marks each)</p>	

Sign of the BOS
Chairman
Name of the Chairman
Name of the BOS

Sign of the
Offg. Associate Dean
Name of the Associate Dean
Name of the Faculty

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Offg. Dean
Name of the Offg. Dean
Name of the Faculty

Skill Enhancement Course (SEC)

Name of the Course: Office Tools for Data Management

Sr.No.	Heading	Particulars
1	Description the course:	<ul style="list-style-type: none">• Introduction: The MS Access course offers a comprehensive understanding of Microsoft's relational database management system, making it a valuable skill in today's data-driven environment. This course is designed to empower individuals with the tools needed to efficiently organize, manage, and analyse data.• Relevance and Usefulness: It provides practical insights into leveraging a relational database system for enhanced efficiency and organization. The MS Access course is useful for individuals seeking to enhance their data management skills.• Applications: With applications in various sectors, from business to research and project management, MS Access is versatile. It facilitates the creation of databases for tasks ranging from contact management to complex systems for inventory and financial analysis.• Interest and Connection with Other Courses: Its practical applications and user-friendly interface make it attractive to individuals looking to boost their data management skills. The MS Access course establishes a practical link with other data-related courses, offering foundational knowledge in database management. It complements courses in data analysis, business intelligence, and information systems.• Demand in the Industry: As businesses increasingly rely on data for decision-making, there is a growing demand for professionals skilled in database management. Proficiency in MS Access is particularly sought after in roles involving data organization, analysis, and reporting.• Job Prospects: Professionals completing the MS Access course are well-positioned for roles requiring efficient data management and analysis. Job prospects include positions in database administration, data analysis, and business intelligence, where MS Access proficiency is a valuable asset.
2	Vertical :	Skill Enhancement Course(SEC)
3	Type :	Practical
4	Credits :	2 credits
5	Hours Allotted :	60 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives (CO):	

	<p>CO 1. Participants will grasp essential database concepts, including tables, relationships, and normalization principles.</p> <p>CO 2. Participants will design and construct well-organized databases in MS Access, showcasing proficiency in table design and data validation.</p> <p>CO 3. Participants will master the creation of complex queries in MS Access, enabling them to extract specific information efficiently.</p> <p>CO 4. Participants will develop expertise in crafting user-friendly forms and interfaces in MS Access, optimizing data entry processes.</p> <p>CO 5. Participants will generate comprehensive reports in MS Access, demonstrating skills in grouping, sorting, and presenting data for meaningful analysis.</p>	
<p>8</p>	<p>Course Outcomes (OC):</p> <p>OC 1. Participants can explain normalization importance, identify table relationships, and justify database design choices.</p> <p>OC 2. Participants create well-structured MS Access databases with proper relationships, data types, and normalization.</p> <p>OC 3. Participants execute advanced queries in MS Access, retrieving specific information based on diverse criteria.</p> <p>OC 4. Participants design intuitive MS Access forms, incorporating controls for an efficient and user-friendly data entry experience.</p> <p>OC 5. Participants produce insightful MS Access reports, organizing and presenting data effectively for analysis.</p>	
<p>9</p>	<p>Modules:- All Practicals are based on MS Access</p> <p>Module 1:</p> <p>Practical 1:</p> <p>A. Getting familiar with MS Access Ribbon options.</p> <p>B. With the help of access wizard Create Database. Add 2 Tables. In each table add 5 columns of different data types. Add 10-10 entries in each table. Add necessary integrity constraints.</p> <p>C. Use the Table Wizard to create a table. Add and delete fields in an existing table. Establish an input mask and validation rule for fields within a table. Switch between the Design and Datasheet views of a table.</p> <p>Practical 2:</p> <p>A. Create and use an Input Mask to enter the data in sample table.</p> <p>B. Adding records in table by using Datasheet View, using a Form and using SQL.</p> <p>C. Create the Employee Database with necessary table and data and then implement the following transitions:</p> <ul style="list-style-type: none"> • Delete the record for Kelly Marder. • Change Pamela Milgrom's salary to \$59,500. • Use the Replace command to change all occurrences of "Manager" to "Supervisor". <p>Practical 3:</p> <p>A. Create the Bookstore database with necessary table and data and modify the database to accommodate the following:</p>	<p>30 Hrs</p>

	<ul style="list-style-type: none"> i. Add the book Exploring Microsoft Office 2000 Vol II (ISBN: 013-011100-7) by Grauer/Barber, published in 1999 by Prentice Hall, selling for \$45.00. ii. Change the price of Memory Management for All of Us to \$29.95. iii. Delete The Presentation Design Book. <p>B. Create a table employ with (idno, name, job, age, salary). Insert 10 records. Create a query to display the information of all managers. Create a query to display the names of employs who"s salary is >15000.</p> <p>C. Use the Form Wizard to create a form, Move and size controls within a form. Use the completed form to enter data into the associated table.</p> <p>Practical 4:</p> <ul style="list-style-type: none"> A. Add fields to an existing table. Use the Lookup Wizard to create a combo box. Add controls to an existing form to demonstrate inheritance. Add command buttons to a form. B. Generate and use various the queries using Query Wizards. C. Generate and use various the Query with User Input. D. Demonstrate use of Expression Builder. <p>Practical 5:</p> <ul style="list-style-type: none"> A. Use the report wizard to create a new report. Modify an existing report by adding, deleting, and/or modifying its controls. B. Create a query containing a calculated control. Then, create report based on that query. Use the Sorting and Grouping command to add a group header and group footer to a report. C. Use action queries to modify a database. Create a crosstab query to display summarized values from a table. 	
Module 2:		
	<p>Practical 6:</p> <ul style="list-style-type: none"> A. Create and Open a database with multiple tables; Identify the one-to-many relationships within the database and to produce reports based on those relationships. B. Create and Open a database with multiple tables; Identify the one-to-one relationships within the database and to produce reports based on those relationships. C. Create and Open a database with multiple tables; Identify the Many-to-Many relationships within the database and to produce reports based on those relationships. <p>Practical 7:</p> <ul style="list-style-type: none"> A. Demonstrate use of look up tables. B. Use the Report Wizard to create a report having the following requirements: <ul style="list-style-type: none"> i. Select the LastName field from the Author table. ii. Select the Title and Price fields from the Book table. iii. Select the PubName field from the Publisher table. 	<p>30 Hrs</p>

- iv. View the data by Publisher.
 - v. Add a grouping level using LastName.
 - vi. Sort the report by the Title field in ascending order.
 - vii. Choose Stepped layout and Portrait orientation.
 - viii. Type Book List as the report's title.
- C. Define the relationship between two tables and add a subform to a form.

Practical 8:

- A. Import an Access table from an Excel workbook. Create a one-to-many relationship between tables in a database. Create a multiple-table query.
- B. Import external data from the Excel spreadsheet file Bookstore.
- i. Make sure Import the source data into a new table in the current database is selected.
 - ii. Select the Author worksheet.
 - iii. Make sure that First Row Contains Column Headings is selected.
 - iv. For the AuthorID field, set the Data Type option to Long Integer and set the Indexed option to Yes (No Duplicates).
 - v. Select Choose my own primary key and make sure the AuthorID field is selected.
 - vi. Save the table with the name Author.
- C. Export data from access to various formats.

Practical 9:

- A. Relationships: Create and Use Author and Book Table.
- i. Create a relationship between the AuthorID field in the Author table and the AuthorCode field in the Book table. Put a checkmark in the box labeled Enforce Referential Integrity.
 - ii. Create a relationship between the PubID field in the Publisher table and the PubID field in the Book table. Put a checkmark in the box labeled Enforce Referential Integrity.
- B. Create a switchboard; Use the Link Tables command to associate tables in one database with the objects in a different database.
- C. Create an AutoExec and a Close Database macro and demonstrate the use.

Practical 10:

- A. Create the College Library database find out the following: -
- i. Total no. of copies of books subject wise.
 - ii. A report displays all books group by Publisher.
 - iii. A report displays all books group by Book Title.
 - iv. A report displays all books group by Book Edition
- B. Demonstrate the use of Database Splitter Wizard by splitting database.
- C. Make Access database as an executable-only

10

Online reference/Text Books

1. https://www.quackit.com/microsoft_access/tutorial/

	2. https://www.tutorialspoint.com/ms_access/index.htm 3. Access 2016 in easy steps, by Mike McGrath, In Easy Steps, 1st Edition, 2017 4. Relational Databases and Microsoft Access, by Ron McFadyen, 1st Edition	
11	Reference Books 1. MICROSOFT ACCESS 2019 by David Murray, Kendall Hunt Publishing, 1 st Edition, 2020. 2. Step by Step Microsoft Access 2013, by Joyce Cox and Joan Lambert, 1 st Edition, Microsoft Press, 2013 3. Access 2019 Bible, by Michael Alexander, Richard Kusleika, Wiley, 1 st Edition, 2018 4. Access 2019 For Dummies, by Laurie A. Ulrich, Ken Cook, Wiley, 1 st Edition, 2018	
12	Internal Continuous Assessment: 40%	Semester End Examination: 60%
13	Continuous Evaluation through: Students are expected to attend each practical and submit the written practical of the previous session. Performing Practical and writeup submission will be continuous internal evaluation. 2.5 marks can be awarded for each practical performance and writeup submission totalling to 50 marks and can be converted to 20 marks.	30 marks practical exam of 2 hours duration
14	Format of Question Paper: Duration 2 hours. Certified copy of Journal is compulsory to appear for the practical examination Practical Slip: Q1. From Module 1 13 marks Q2. From Module 2 12marks Q3. Journal and Viva 05 marks	

Name of the Course: Fundamentals of Telecommunication Systems

Sr.No	Heading	Particulars
1	Description the course : Including but Not limited to:	<p>The course on Fundamentals of Telecommunication Systems aims to provide an in-depth understanding of the basic concepts and theories of signals and systems, as well as their applications in the field of telecommunication engineering. The course also focuses on the latest trends in 5G technology, providing students with insights into the driver, pillars, and challenges of 5G networks.</p> <p>Relevance and Usefulness: The course is highly relevant to students pursuing degrees in electronics and communication engineering, as well as those interested in telecommunications engineering. By focusing on key concepts and terminologies, such as sets, mappings, functions, and systems operators, the course provides a foundation for understanding both the theoretical and</p>

As Per NEP 2020

University of Mumbai



Title of the Course Fundamentals of People's Skills

Semester – Sem I

Syllabus for Two Credit

(With effect from the academic year 2024-25)

Name of the Course: Fundamentals of People's Skills

Sr. No.	Heading	Particulars
1	Description the course : Including but Not limited to :	This course deals with the fundamentals of people's skills which are one of the most important aspects of Life Skills required to be developed among students. Acquiring these skills would help them to develop ethical foundation right during their young days. It would foster creativity and innovation among these student while sensitizing them towards respecting social and cultural differences.
2	Vertical :	Skill Enhancement
3	Type :	Theory / Practical
4	Credit:	2 credits
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks

Course Objectives	<ol style="list-style-type: none"> 1. To develop ethical foundation among students. 2. To encourage creativity and innovation among young minds. 3. To create awareness among students about the importance of being a good listener. 4. To sensitize students about recognizing and dealing with different social, cultural backgrounds more effectively 5. To enable students to conduct themselves more professionally and put across their views in front of others more effectively.
Course Outcomes	<p>Students will be able to:</p> <ol style="list-style-type: none"> 1. Demonstrate ethical behavior coupled with integrity. 2. Will generate new ideas and create a business plan. 3. Will be able to develop good listening skills which are vital for demonstrating good team qualities. 4. Will build sensitivity about social and cultural differences and illustrate good etiquettes. 5. Will be able to present themselves and their thoughts in front of others more confidence.
Module 1: Ethics and Integrity (6 Hours)	Importance of ethics. (Story-telling) Ethical decision-making. (Discussing biographies) Personal and professional moral codes of conduct. (Discussing biographies) Creating a harmonious life. (Interactive session)
Module 2: Entrepreneurial Skills (6 Hours)	<ol style="list-style-type: none"> 1. Who is an entrepreneur (Story-telling) 2. Traits and qualities of a good entrepreneur (Story-telling) 3. Types of entrepreneurs (Interactive session with Story-telling) 4. Problem identification and idea generation (role play/ simulation)

	<ol style="list-style-type: none"> 5. Idea validation (Interactive session with Story-telling) 6. Pitch-deck presentation (video)
Module 3 Teamwork and Importance of Listening in a Team (6 Hours)	<ol style="list-style-type: none"> 1. What is a team? (Conceptual Clarity) 2. Advantages of being a good listener in a team (Story telling) 3. Listening as a team leader (Case study) 4. Listening as a team member(Interactive session) 5. Improving listening skills (Interactive session)
Module 4 Resume Writing and CV Building (6 Hours)	<ol style="list-style-type: none"> 1. Difference between a Resume and CV (Conceptual Clarity) 2. Essentials of writing a good Resume (Practical Application) 3. How to build a good CV (Practical Application) 4. Common Mistakes in preparing a good resume/ building a good CV (Conceptual Clarity)
Module 5 Professional, Social and Cultural Etiquettes (6 Hours)	<ol style="list-style-type: none"> 1. Why following etiquettes is important (Interactive session) 2. Types of etiquettes (Conceptual Clarity) 3. Professional etiquettes (Video + Story-telling) 4. Social etiquettes (Video + Story-telling) 5. Cultural etiquettes (Video + Story-telling) 6. Role of etiquettes in creating a better personal and professional image (Video + Story-telling)
Suggested Readings and e- resources	<ol style="list-style-type: none"> 1. Bentley University. (2022, December 7) 7 ways to promote diversity in the workplace. https://www.bentley.edu/news/7-ways-promote-diversity-workplace. 2. Roy, B. D. (2022, August 1). Active listening; its skills and importance in the workplace. Nurture an Engaged and Satisfied Workforce Vantage Circle HR Blog. https://blog.vantagecircle.com/active-listening/. 3. Hisrich, R. D., Peters, M. P., and Shepherd D. A. (2017). Entrepreneurship. 10th Ed. McGraw Hill Education 5. Ashokan, M. S. (2015). Karmayogi: A Biography of E. Sreedharan. London: Penguin. 6. Nellickappilly, S. (n.d). Ethics. [Video]. NPTEL. https://nptel.ac.in/courses/109/106/109106117/.
Assessment and Evaluation	Continuous assessment throughout the semester of 30 Marks by maintain a logbook and/ or a journal and final project of 20 marks at the end of the semester
Signature of the Team	

Signature:
Prof. Kavita Laghate
Chairman of Board of Studies in Value Education

Vocational Skill Course (VSC)

Name of the course: **Combinational and Sequential Design**

Sr.No	Heading	Particulars
1	Description the course : Including but Not limited to:	<p>Combinational and Sequential Design is a course that focuses on digital electronics and the design of circuits that combine multiple digital components. The course covers the theoretical and practical aspects of both combinational and sequential circuit design, as well as their applications.</p> <p>Digital circuits are used in many electronic devices, including computers, smartphones, and communication systems. The design of these circuits is critical to the performance and functionality of these devices. Understanding the basics of combinational and sequential design is essential for anyone interested in pursuing a career in the field of digital electronics.</p> <p>The course will cover the various techniques and tools used in digital circuit design, including Boolean algebra and K-map simplification.</p> <p>The course is highly relevant in today's technological landscape, as all modern electronics devices are based on digital circuits. The skills learned in the course are highly useful in various fields, such as computer and electronics engineering, telecommunications, and robotics.</p> <p>The application of combinational and sequential design is quite broad, and the skills acquired from the course can be applied in various areas. Students will be able to design digital circuits, troubleshoot and repair digital circuits, and optimize circuit performance.</p> <p>The course is highly interesting and engaging, providing students with the opportunity to explore and analyze complex digital circuitry. It is also connected to other courses such as Digital Logic Design, Computer Organization, and Microcontrollers.</p> <p>The demand for professionals with digital circuit design skills is high in various industries such as electronics, semiconductors, telecommunications, and computing. There is an increasing demand for professionals with these skills,</p>

and job prospects are promising for those with a solid background in digital circuit design.

In summary, Combinational and Sequential Design is a course that offers students a comprehensive understanding of digital circuits' design principles and techniques. The knowledge and skills gained from this course are highly useful and applicable in various industries, with promising career prospects.

2	Vertical :	Vocational Skill Course(VSC)
3	Type :	Practical
4	Credits :	2 credits (60 hours in a semester)
5	Hours Allotted :	60 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives(CO):	<p>CO 1.To provide students with a comprehensive understanding of combinational and sequential circuit design principles and techniques.</p> <p>CO 2.To enable students to apply Boolean algebra, K-map simplification, and other design techniques to create optimized digital circuits.</p> <p>CO 3.To equip students with the necessary tools and skills to implement arithmetic circuits, data path circuits, and memory circuits.</p> <p>CO 4.To enable students to analyze and troubleshoot digital circuits to ensure optimal performance.</p> <p>CO 5.To provide students with hands-on practical experience in designing and implementing digital circuits using simulation software and real-world hardware.</p>
8	Course Outcomes (OC):	<p>OC 1. Students can explain the differences between combinational and sequential circuits, and identify their different applications.</p> <p>OC 2. Students can define the concept of Boolean algebra and its importance in digital circuit design.</p> <p>OC 3. Students can explain and apply the principles of K-map simplification and other design techniques.</p> <p>OC 4. Students can design and construct combinational circuits using Boolean algebra and K-maps.</p> <p>OC 5. Students can design and implement arithmetic circuits such as adders, subtractors, and multipliers.</p> <p>OC 6. Students can design and implement data path circuits such as registers, multiplexers, and decoders.</p> <p>OC 7. Students can implement digital circuits using breadboards, logic probes, and oscilloscopes.</p> <p>OC 8. Students can troubleshoot and verify the correctness of digital circuits using real-world hardware and measure their performance using various metrics.</p>
9	Modules:- Module 1:	

	<p>1. Study of Logic gates and their ICs and universal gates:</p> <p>a. Study of AND, OR, NOT, XOR, XNOR, NAND and NOR gates</p> <p>b. Study of IC 7400, 7402, 7404, 7408, 7432, 7486, 74266</p> <p>c. Implement AND, OR, NOT, XOR, XNOR using NAND gates.</p> <p>d. Implement AND, OR, NOT, XOR, XNOR using NOR gates.</p> <p>2. Implement the given Boolean expressions using minimum number of gates.</p> <p>a. Verifying De Morgan's laws.</p> <p>b. Implement other given expressions using minimum number of gates.</p> <p>c. Implement other given expressions using minimum number of ICs.</p> <p>3. Implement combinational circuits.</p> <p>a. Design and implement combinational circuit based on the problem given and minimizing using K-maps. (Various Equations, SOP, POS forms can be given)</p> <p>4. Implement code converters.</p> <p>a. Design and implement Binary – to – Gray code converter.</p> <p>b. Design and implement Gray – to – Binary code converter.</p> <p>c. Design and implement Binary – to – BCD code converter.</p> <p>d. Design and implement Binary – to – XS-3 code converter.</p> <p>5. Implement Adder and Subtractor Arithmetic circuits.</p> <p>a. Design and implement Half adder and Full adder.</p> <p>b. Design and implement BCD adder.</p> <p>c. Design and implement XS – 3 adder.</p> <p>d. Design and implement binary subtractor.</p> <p>e. Design and implement BCD subtractor.</p> <p>b. Design and implement XS – 3 subtractor.</p>	<p>30 Hrs</p>
<p>Module 2:</p>		
	<p>6. Implement Arithmetic circuits.</p> <p>a. Design and implement a 2-bit by 2-bit multiplier.</p> <p>b. Design and implement a 2-bit comparator.</p> <p>7. Implement Encode and Decoder and Multiplexer and Demultiplexers.</p> <p>a. Design and implement 8:3 encoder.</p> <p>b. Design and implement 3:8 decoder.</p> <p>c. Design and implement 4:1 multiplexer. Study of IC 74153, 74157</p> <p>d. Design and implement 1:4 demultiplexer. Study of IC 74139</p> <p>e. Implement the given expression using IC 74151 8:1 multiplexer.</p> <p>f. Implement the given expression using IC 74138 3:8 decoder.</p> <p>8. Study of flip-flops and counters.</p> <p>a. Study of flip-flops and counters.</p> <p>b. Study of IC 7473.</p> <p>c. Study of IC 7474.</p> <p>d. Study of IC 7476.</p> <p>e. Conversion of Flip-flops.</p>	<p>30 Hrs</p>

	<ul style="list-style-type: none"> f. Design of 3-bit synchronous counter using 7473 and required gates. g. Design of 3-bit ripple counter using IC 7473. <p>9. Study of counter ICs and designing Mod-N counters.</p> <ul style="list-style-type: none"> a. Study of IC 7490, 7492, 7493 and designing mod-n counters using these. b. Designing mod-n counters using IC 7473 and 7400 (NAND gates) <p>10. Design of shift registers and shift register counters.</p> <ul style="list-style-type: none"> a. Design serial – in serial – out, serial – in parallel – out, parallel – in serial – out, parallel – in parallel – out and bidirectional shift registers using IC 7474. b. Study of ID 7495. c. Implementation of digits using seven segment displays. 	
10	Text Books	
	1. Digital Electronics and Logic Design, N. G. Palan, Technova	
11	Reference Books	
	<ul style="list-style-type: none"> 1. Digital Principles and Applications, Malvino and Leach, Tata McGrawHill 2. Modern Digital Electronics, R. P. Jain, Tata McGrawHill 3. Digital Design, M. Morris R. Mano, Michael D. Ciletti, Pearson Education, 2012 	
12	Internal Continuous Assessment: 40%	Semester End Examination: 60%
13	<p>Continuous Evaluation through:</p> <p>Students are expected to attend each practical and submit the written practical of the previous session. Performing Practical and writeup submission will be continuous internal evaluation. 2.5 marks can be awarded for each practical performance and writeup submission totalling to 50 marks and can be converted to 20 marks.</p>	30 marks practical exam of 2 hours duration
14	<p>Format of Question Paper: Duration 2 hours. Certified copy of Journal is compulsory to appear for the practical examination</p> <p>Practical Slip:</p> <ul style="list-style-type: none"> Q1. From Module 1 13 marks Q2. From Module 2 12marks Q3. Journal and Viva 05 marks 	