ANNA UNIVERSITY, CHENNAI
AFFILIATED INSTITUTIONS
B.TECH INFORMATION TECHNOLOGY
REGULATIONS – 2017
CHOICE BASED CREDIT SYSTEM

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

1. To ensure graduates will be proficient in utilizing the fundamental knowledge of basic sciences, mathematics and Information Technology for the applications relevant to various streams of Engineering and Technology.

2. To enrich graduates with the core competencies necessary for applying knowledge of computers and telecommunications equipment to store, retrieve, transmit, manipulate and analyze data in the context of business enterprise.

3. To enable graduates to think logically, pursue lifelong learning and will have the capacity to understand technical issues related to computing systems and to design optimal solutions.

4. To enable graduates to develop hardware and software systems by understanding the importance of social, business and environmental needs in the human context.

5. To enable graduates to gain employment in organizations and establish themselves as professionals by applying their technical skills to solve real world problems and meet the diversified needs of industry, academia and research.

PROGRAM OUTCOMES (POs)

ENGINEERING GRADUATES WILL BE ABLE TO:

1. **Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. **Problem analysis**: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. **Design/development of solutions**: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. **Conduct investigations of complex problems**: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. **Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. **Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. **Communication**: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. **Project management and finance**: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. **Life-long learning**: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OBJECTIVES (PSOs)

1. To create, select, and apply appropriate techniques, resources, modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

2. To manage complex IT projects with consideration of the human, financial, ethical and environmental factors and an understanding of risk management processes, and operational and policy implications.

SI. No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	CS8085	Social Network Analysis	PE	3	3	0	0	3
2.	CS8086	Soft Computing	PE	3	3	0	0	3
3.	CS8074	Cyber Forensics	PE	3	3	0	0	3
4.	IT8073	Information Security	PE	3	3	0	0	3
5.	EC8093	Digital Image Processing	PE	3	3	0	0	3
6.	IT8004	Network Management	PE	3	3	0	0	3
7.	GE8076	Professional Ethics in Engineering	PE	3	3	0	0	3

SEMESTER VIII
ELECTIVE - V

SI.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	CS8080	Information Retrieval Techniques	PE	3	3	0	0	3
2.	CS8078	Green Computing	PE	3	3	0	0	3
3.	CS8084	Natural Language Processing	PE	3	3	0	0	3
4.	IT8077	Speech Processing	PE	3	3	0	0	3
5.	IT8078	Web Design and Management	PE	3	3	0	0	3
6.	IT8005	Electronic Commerce	PE	3	3	0	0	3
7.	GE8073	Fundamentals of Nano Science	PE	3	3	0	0	3

*Professional Electives are grouped according to elective number as was done previously.

EMPLOYABILITY ENHANCEMENT COURSES (EEC)

SI.NO	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	HS8381	Interpersonal Skills/ Listening & Speaking	EEC	2	0	0	2	1
2.	HS8461	Advanced Reading and Writing	EEC	2	0	0	2	1
3.	IT8611	Mini Project	EEC	2	0	0	2	1
4.	HS8581	Professional Communication	EEC	2	0	0	2	1
5.	IT8811	Project Work	EEC	20	0	0	20	10

4. Design and implement combinational circuits using MSI devices:
    - 4 – bit binary adder / subtractor
    - Parity generator / checker
    - Magnitude Comparator
    - Application using multiplexers
5. Design and implement shift-registers.
6. Design and implement synchronous counters.
7. Design and implement asynchronous counters.
8. Coding combinational circuits using HDL.
9. Coding sequential circuits using HDL.
10. Design and implementation of a simple digital system (Mini Project).

TOTAL: 60 PERIODS

OUTCOMES:
Upon Completion of the course, the students will be able to:
- Implement simplified combinational circuits using basic logic gates
- Implement combinational circuits using MSI devices
- Implement sequential circuits like registers and counters
- Simulate combinational and sequential circuits using HDL

LIST OF EQUIPMENT FOR A BATCH OF 30 STUDENTS:

LABORATORY REQUIREMENT FOR BATCH OF 30 STUDENTS HARDWARE:
1. Digital trainer kits - 30
2. Digital ICs required for the experiments in sufficient numbers

SOFTWARE:
  1. HDL simulator.

		L	T	P	C
HS8381	**INTERPERSONAL SKILLS/LISTENING&SPEAKING**	0	0	2	1

OBJECTIVES:
The Course will enable learners to:
- Equip students with the English language skills required for the successful undertaking of academic studies with primary emphasis on academic speaking and listening skills.
- Provide guidance and practice in basic general and classroom conversation and to engage in specific academic speaking activities.
- improve general and academic listening skills
- Make effective presentations.

UNIT I

Listening as a key skill- its importance- speaking - give personal information - ask for personal information - express ability - enquire about ability - ask for clarification Improving pronunciation - pronunciation basics taking lecture notes - preparing to listen to a lecture - articulate a complete idea as opposed to producing fragmented utterances.

UNIT II

Listen to a process information- give information, as part of a simple explanation - conversation starters: small talk - stressing syllables and speaking clearly - intonation patterns - compare and contrast information and ideas from multiple sources- converse with reasonable accuracy over a wide range of everyday topics.

UNIT III

Lexical chunking for accuracy and fluency- factors influence fluency, deliver a five-minute informal talk - greet - respond to greetings - describe health and symptoms - invite and offer - accept - decline - take leave - listen for and follow the gist- listen for detail

UNIT IV

Being an active listener: giving verbal and non-verbal feedback - participating in a group discussion - summarizing academic readings and lectures conversational speech listening to and participating in conversations - persuade.

UNIT V

Formal and informal talk - listen to follow and respond to explanations, directions and instructions in academic and business contexts - strategies for presentations and interactive communication - group/pair presentations - negotiate disagreement in group work.

TOTAL :30PERIODS

OUTCOMES:
At the end of the course Learners will be able to:
- Listen and respond appropriately.
- Participate in group discussions
- Make effective presentations
- Participate confidently and appropriately in conversations both formal and informal

TEXT BOOKS:
1. Brooks,Margret. Skills for Success. Listening and Speaking. Level 4 Oxford University Press, Oxford: 2011.
2. Richards,C. Jack. & David Bholke. Speak Now Level 3. Oxford University Press, Oxford: 2010

REFERENCES:
1. Bhatnagar, Nitin and Mamta Bhatnagar. Communicative English for Engineers and Professionals. Pearson: New Delhi, 2010.
2. Hughes, Glyn and Josephine Moate. Practical English Classroom. Oxford University Press: Oxford, 2014.
3. Vargo, Mari. Speak Now Level 4. Oxford University Press: Oxford, 2013.
4. Richards C. Jack. Person to Person (Starter). Oxford University Press: Oxford, 2006.
5. Ladousse, Gillian Porter. Role Play. Oxford University Press: Oxford, 2014

OUTCOMES:
At the end of the course, the student should be able to
- Compare the performance of various CPU Scheduling Algorithms
- Implement Deadlock avoidance and Detection Algorithms
- Implement Semaphores
- Create processes and implement IPC
- Analyze the performance of the various Page Replacement Algorithms
- Implement File Organization and File Allocation Strategies

HS8461	ADVANCED READING AND WRITING	L	T	P	C
		0	0	2	1

OBJECTIVES:

- Strengthen the reading skills of students of engineering.
- Enhance their writing skills with specific reference to technical writing.
- Develop students' critical thinking skills.
- Provide more opportunities to develop their project and proposal writing skills.

UNIT I

Reading - Strategies for effective reading-Use glosses and footnotes to aid reading comprehension-Read and recognize different text types-Predicting content using photos and title **Writing**-Plan before writing- Develop a paragraph: topic sentence, supporting sentences, concluding sentence –Write a descriptive paragraph

UNIT II

Reading-Read for details-Use of graphic organizers to review and aid comprehension **Writing**-State reasons and examples to support ideas in writing- Write a paragraph with reasons and examples-Write an opinion paragraph

UNIT III

Reading- Understanding pronoun reference and use of connectors in a passage- speed reading techniques-**Writing-** Elements of a good essay-Types of essays- descriptive-narrative- issue-based-argumentative-analytical.

UNIT IV
Reading- Genre and Organization of Ideas- **Writing-** Email writing- visumes – Job application- project writing-writing convincing proposals.

UNIT V

Reading- Critical reading and thinking- understanding how the text positions the reader- identify **Writing**- Statement of Purpose- letter of recommendation- Vision statement

TOTAL: 30   PERIODS

OUTCOMES:
At the end of the course Learners will be able to:
- Write different types of essays.
- Write winning job applications.
- Read and evaluate texts critically.
- Display critical thinking in various professional contexts.

TEXT BOOKS:

1. Gramer F. Margot and Colin S. Ward **Reading and Writing (Level 3)** Oxford University Press: Oxford, 2011
2. Debra Daise, CharlNorloff, and Paul Carne **Reading and Writing (Level 4)** Oxford University Press: Oxford, 2011

REFERENCES:

1. Davis, Jason and Rhonda LIss. **Effective Academic Writing (Level 3)** Oxford University Press: Oxford, 2006
2. E. Suresh Kumar and et al. **Enriching Speaking and Writing Skills.** Second Edition. Orient Black swan: Hyderabad, 2012
3. Withrow, Jeans and et al**. Inspired to Write. Readings and Tasks to develop writing skills.** Cambridge University Press: Cambridge, 2004
4. Goatly, Andrew**. Critical Reading and Writing.** Routledge: United States of America, 2000
5. Petelin, Roslyn and Marsh Durham**. The Professional Writing Guide: Knowing Well and Knowing Why.** Business & Professional Publishing: Australia, 2004

MA8551	ALGEBRA AND NUMBER THEORY	L	T	P	C
		4	0	0	4

OBJECTIVES:
- To introduce the basic notions of groups, rings, fields which will then be used to solve related problems.
- To introduce and apply the concepts of rings, finite fields and polynomials.
- To understand the basic concepts in number theory
- To examine the key questions in the Theory of Numbers.
- To give an integrated approach to number theory and abstract algebra, and provide a firm basis for further reading and study in the subject.

UNIT I   GROUPS AND RINGS   12
Groups: Definition - Properties - Homomorphism - Isomorphism - Cyclic groups - Cosets - Lagrange's theorem. Rings: Definition - Sub rings - Integral domain - Field - Integer modulo n - Ring homomorphism.

UNIT II   FINITE FIELDS AND POLYNOMIALS   12
Rings - Polynomial rings - Irreducible polynomials over finite fields - Factorization of polynomials over finite fields.

HS8581   **PROFESSIONAL COMMUNICATION**   L   T   P   C
                                                              0   0   2   1

OBJECTIVES:
 The course aims to:
- Enhance the Employability and Career Skills of students
- Orient the students towards grooming as a professional
- Make them Employable Graduates
- Develop their confidence and help them attend interviews successfully.

UNIT I
Introduction to Soft Skills-- Hard skills & soft skills - employability and career Skills—Grooming as a professional with values—Time Management—General awareness of Current Affairs

UNIT II
 Self-Introduction-organizing the material - Introducing oneself to the audience – introducing the topic – answering questions – individual presentation practice— presenting the visuals effectively – 5 minute presentations

UNIT III
Introduction to Group Discussion— Participating in group discussions – understanding group dynamics - brainstorming the topic -– questioning and clarifying –GD strategies- activities to improve GD skills

UNIT IV
Interview etiquette – dress code – body language – attending job interviews– telephone/skype interview -one to one interview &panel interview – FAQs related to job interviews

UNIT V
Recognizing differences between groups and teams- managing time-managing stress- networking professionally- respecting social protocols-understanding career management-developing a long-term career plan-making career changes

                                              TOTAL :   30   PERIODS

OUTCOMES:
At the end of the course Learners will be able to:
- Make effective presentations
- Participate confidently in Group Discussions.
- Attend job interviews and be successful in them.
- Develop adequate Soft Skills required for the workplace

Recommended Software
1. Globearena
2. Win English

REFERENCES:
1. Butterfield, Jeff   Soft Skills for Everyone. Cengage Learning: New Delhi, 2015
2. E. Suresh Kumar et al. Communication for Professional Success. Orient Blackswan: Hyderabad, 2015
3. Interact English Lab Manual for Undergraduate Students,. OrientBalckSwan: Hyderabad, 2016.
4. Raman, Meenakshi and Sangeeta Sharma. Professional Communication. Oxford University Press: Oxford, 2014
5. S. Hariharanetal. Soft Skills. MJP Publishers: Chennai, 2010.

12.4   PROJECT WORK

Project work may be allotted to a single student or to a group of students not exceeding 4 per group.

The Head of the Institutions shall constitute a review committee for project work for each branch of study. There shall be three reviews during the semester by the review committee. The student shall make presentation on the progress made by him / her before the committee. The total marks obtained in the three reviews shall be **reduced for 20 marks** and rounded to the nearest integer (as per the scheme given in 12.4.1).

12.4.1 The project report shall carry a maximum 30 marks. The project report shall be submitted as per the approved guidelines as given by Director, Academic Courses. Same mark shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 50 marks. Marks are awarded to each student of the project group based on the individual performance in the viva-voce examination.

Review I	Review II	Review III	End semester Examinations				
			Thesis Submission (30)		Viva-Voce (50)		
			Internal	External	Internal	External	Supervisor
5	7.5	7.5	15	15	15	20	15

12.4.2 If a candidate fails to submit the project report on or before the specified deadline, he/she is deemed to have failed in the Project Work and shall re-register for the same in a subsequent semester.

B.TECH. INFORMATION TECHNOLOGY
REGULATIONS –2020 - AUTONOMOUS
CHOICE BASED CREDIT SYSTEM
I TO VIII SEMESTERS CURRICULUM

Vision of the Department
To make the department of Information Technology the unique of its kind in the field of Research and Development activities in this part of world

Mission of the Department
To impart highly innovative and technical knowledge in the field of Information Technology to the urban and unreachable rural student folks through Total Quality Education.

Program Educational Objectives (PEOs)
PEO1: Technical Knowledge : Graduates will be able to identify, analyze and create solutions for real life, industrial and societal needs by applying the principles and practices of Information Technology.
PEO2: Teamwork & Ethics : Graduates will be able to collaborate effectively and ethically in a multi-disciplinary team as a member &/ as a leader.
PEO3: Lifelong Learning : Graduates will be able to adopt the contemporary technologies in the field of Information Technology to provide solutions for challenging environments.

Program Specific Objectives (PSOs)
PSO 1: Demonstrate technical and interpersonal skills to design and develop IT enabled solutions to meet the real time industrial and societal needs

PSO2: Exhibit an ability to adapt to the evolutionary changes in computing

The credit requirement for the programme B.Tech. Information Technology (as per Regulation 2020) is outlined below:

Sl. No.	Category of Courses	Credits	I	II	III	IV	V	VI	VII	VIII	Credits
1	Foundation Courses (HS) + (BS)+(ES)	30 – 35 % (50 – 59)	19*	18	14				3		54*
2	Professional Core (PC)	40 – 50 % 67 – 84		5	8	21	17	15	8		74
3	Professional Elective (PE)	10 to 15 % (17 – 25)					3	6	6		15

4	Open Elective (OE)	6 credits				3		3		6
5	Employability Enhancement Courses (EEC)	12-18% (20 – 30)		1	1	1		2	8	13
6	Online course (OL)	6 credits					2	2	2	6
7	Audit courses (AU)	2 Courses from 3rd to 8th			AU		AU			
8	Value added course (VAL)	Program specific								
	Total	Credit range: 165-170	19*	23	23	22	24	23	24	10	168*

* Applicable for COVID batch

SEMESTER I

SL NO	COURSE CODE	COURSE TITLE	CATEGORY	TOTAL CONTACT PERIODS	L	T	P	C
THEORY								
1	HS1171	COMMUNICATIVE ENGLISH	HS	3	3	0	0	3
2	MA1171	ENGINEERING MATHEMATICS – I	BS	4	4	0	0	4
3	PH1171	ENGINEERING PHYSICS	BS	3	3	0	0	3
4	CY1171	ENGINEERING CHEMISTRY	BS	3	3	0	0	3
5	GE1171	FUNDAMENTALS OF COMPUTING AND PROGRAMMING	ES	3	3	0	0	3
PRACTICALS								
6	BS1181	BASIC SCIENCES LABORATORY	BS	2	0	0	2	1*
7	GE1181	FUNDAMENTALS OF COMPUTING AND PROGRAMMING	ES	4	0	0	4	2
TOTAL CREDITS								**19*/20**

SEMESTER II

SL	COURSE	COURSE TITLE	CATEGORY	TOTAL	L	T	P	C

NO	CODE			CONTACT PERIODS				
THEORY								
1	HS1271	TECHNICAL ENGLISH	HS	3	3	0	0	3
2	MA1271	ENGINEERING MATHEMATICS – II	BS	4	4	0	0	4
3	PH1275	PHYSICS FOR INFORMAION SCIENCE	BS	3	3	0	0	3
4	BS1271	ENVIRONMENTAL SCIENCE AND ENGINEERING	BS	3	3	0	0	3
5	GE1271	ENGINEERING GRAPHICS	ES	3	3	0	0	3
6	IT1201	PROBLEM SOLVING USING PYTHON PROGRAMMING	PC	3	3	0	0	3
PRACTICALS								
7	GE1281	ENGINEERING PRACTICES LABORATORY	ES	4	0	0	4	2
8	IT1211	PROBLEM SOLVING USING PYTHON PROGRAMMING LABORATORY	PC	4	0	0	4	2
						TOTAL CREDITS		23

SEMESTER III

SL NO	COURSE CODE	COURSE TITLE	CATEGORY	TOTAL CONTACT PERIODS	L	T	P	C
THEORY								
1	MA1301	DISCRETE MATHEMATICS &PROBABILITY	BS	4	3	1	0	4
2	IT1371	COMPUTER ORGANIZATION AND ARCHITECTURE	PC	3	3	0	0	3
3	IT1301	OBJECT ORIENTED PROGRAMMING	PC	3	3	0	0	3
4	EC1306	DIGITAL SYSTEMS	ES	3	3	0	0	3
5	EE1308	FUNDAMENTALS OF ELECTRICAL AND ELECTRONICS ENGINEERING	ES	3	3	0	0	3
PRACTICALS								
6	IT1311	OBJECT ORIENTED PROGRAMMING LABORATORY	PC	4	0	0	4	2
7	EC1316	DIGITAL SYSTEMS LABORATORY	ES	4	0	0	4	2
8	EE1282	FUNDAMENTALS OF	ES	4	0	0	4	2

SL NO	COURSE CODE	COURSE TITLE	CATEGORY	TOTAL CONTACT PERIODS	L	T	P	C
		ELECTRICAL AND ELECTRONICS ENGINEERING LABORATORY						
9	HS1321	INTERPERSONAL SKILLS - LISTENING AND SPEAKING	EEC	2	0	0	2	1
							TOTAL CREDITS	**23**

SEMESTER IV

SL NO	COURSE CODE	COURSE TITLE	CATEGORY	TOTAL CONTACT PERIODS	L	T	P	C
THEORY								
1	CS1371	DATABASE MANAGEMENT SYSTEMS	PC	3	3	0	0	3
2	IT1401	DATA STRUCTURES	PC	3	3	0	0	3
3	IT1402	OPERATING SYSTEMS	PC	3	3	0	0	3
4	IT1403	SOFTWARE ENGINEERING	PC	3	3	0	0	3
5	EC1406	COMMUNICATION ENGINEERING	PC	3	3	0	0	3
PRACTICALS								
6	CS1381	DATABASE MANAGEMENT SYSTEMS LABORATORY	PC	4	0	0	4	2
7	IT1411	DATA STRUCTURES LABORATORY	PC	4	0	0	4	2
8	IT1412	OPERATING SYSTEMS LABORATORY	PC	4	0	0	4	2
9	HS1421	AN INTRODUCTION TO ADVANCED READING AND WRITING	EEC	2	0	0	2	1
AUDIT COURSE								
10	AUD1	AUDIT COURSE	AC	3	3	0	0	0
VALUE ADDED COURSE								
11		VALUE ADDED COURSE / INTERNSHIP	VAC					
							TOTAL CREDITS	**22**

SEMESTER V

SL NO	COURSE CODE	COURSE TITLE	CATEGORY	TOTAL CONTACT PERIODS	L	T	P	C
THEORY								
1	IT1571	COMPUTER NETWORKS	PC	3	3	0	0	3
2	IT1501	DESIGN AND ANALYSIS OF ALGORITHMS	PC	3	3	0	0	3

S. No.	NAME OF THE EQUIPMENT	QUANTITY
1.	D. C. Motor Generator Set	2
2.	D.C. Shunt Motor	2
3.	Single Phase Transformer	2
4.	Single Phase Induction Motor	2
5.	Ammeter AC and DC	20
6.	Voltmeters AC and DC	20
7.	Watt meters LPF and UPF	4
8.	Resistors & Breadboards	-
9.	Cathode Ray Oscilloscopes	4
10.	Dual Regulated power supplies	6
11.	A.C. Signal Generators	4
12.	Transistors (BJT, JFET)	-

HS1321   **INTERPERSONAL SKILLS - LISTENING AND SPEAKING**

L	T	P	C
0	0	2	1

OBJECTIVES:

The course will enable learners to:

- equip students with the English language skills required for the successful undertaking of academic studies with primary emphasis on academic speaking and listening skills.
- provide guidance and practice in basic general and classroom conversation and to engage in specific academic speaking activities.
- improve general and academic listening skills
- make effective presentations.

UNIT I   LISTENING AS A KEY SKILL
    6

Listening as a key skill- its importance- speaking – give personal information – ask for personal information – express ability – enquire about ability – ask for clarification -

Improving pronunciation– pronunciation basics — stressing syllables and speaking clearly – intonation patterns – conversation starters: small talk.

UNIT II LISTEN TO A PROCESS INFORMATION 6

Listen to a process information- give information, as part of a simple explanation — taking lecture notes – preparing to listen to a lecture – articulate a complete idea as opposed to producing fragmented utterances - compare and contrast information and ideas from multiple sources- converse with reasonable accuracy over a wide range of everyday topics.

UNIT III LEXICAL CHUNKING 6

Lexical chunking for accuracy and fluency- factors influence fluency, deliver a five-minute informal talk – greet – respond to greetings – describe health and symptoms – invite and offer –accept – decline – take leave – listen for and follow the gist- listen for detail

UNIT IV GROUP DISCUSSION 6

Being an active listener: giving verbal and non-verbal feedback – participating in a group discussion – summarizing academic readings and lectures conversational speech listening to and participating in conversations – persuade- negotiate disagreement in group work.

UNIT V GROUP & PAIR PRESENTATIONS 6

Formal and informal talk – listen to follow and respond to explanations, directions and instructions in academic and business contexts – strategies for presentations and interactive communication – group/pair presentations

TOTAL: 30 PERIODS

COURSE OUTCOMES

Upon successful completion of course, the students will be able to

CO1: Develop their communicative competence in English with specific reference to listening

CO2: Prepare conversation with reasonable accuracy

CO3: Apply lexical Chunking for accuracy in speaking

CO4: Demonstrate their ability to communicate effectively in GDs

CO5: Explain directions and instructions in academic and business contexts

TEXT BOOKS:

1. Brooks, Margret, 2011, Skills for Success. Listening and Speaking. Level 4, Oxford University Press, Oxford.
2. Richards, C, Jack& David Bholke, 2010, Speak Now Level 3, Oxford University Press, Oxford.

REFERENCE BOOKS:

1. Bhatnagar, Nitin & Mamta Bhatnagar, 2010, Communicative English for Engineers and Professionals, Pearson, New Delhi.

2. Hughes, Glyn & Josephine Moate, 2014, Practical English Classroom, Oxford University Press, Oxford.

3. Vargo, Mari, 2013, Speak Now Level 4, Oxford University Press, Oxford.

4. Richards, C, Jack, 2006, Person to Person (Starter), Oxford University Press, Oxford.

5. Ladousse, Gillian Porter, 2014, Role Play. Oxford University Press, Oxford.

WEB RESOURCES:

1. https://www.cambridge.org/elt/blog/wp-content/uploads/2019/10/Learning-Language-in-Chunks.pdf

2. https://english.eagetutor.com/english/628-how-to-greet-your-boss-people-in-office.html

3. https://www.groupdiscussionideas.com/group-discussion-topics-with-answers/

4. https://www.bbc.co.uk/worldservice/learningenglish/business/talkingbusiness/unit3presentations/1opening.shtml

CS1371   DATABASE MANAGEMENT SYSTEMS

L	T	P	C
3	0	0	3

OBJECTIVES:

To enable the students to

- learn the fundamentals of data models and to represent a database system using ER diagrams
- study SQL and relational database design
- understand the internal storage structures using different file and indexing techniques which will help in physical database design
- understand the fundamental concepts of transaction processing- concurrency control techniques and recovery procedures
- learn about file organization and query processing

UNIT I   INTRODUCTION TO DATABASE & ER MODEL   9

Introduction to Databases - File System Vs Database System - Database System Architecture- Database Users and Administrator - Data Models - Entity Relationship Model - E-R Diagrams - Design Issues - Extended E-R Features - Introduction to Relational Model - ER to Relational Schema Mapping

UNIT II   RELATIONAL MODEL & SQL   9

Structure of Relational Databases - Relational Query Languages - Relational Algebra – SQL: DDL, DML, DCL, TCL - Simple Queries, Complex Nested Queries, Correlated Nested Queries, Joins, Aggregate Functions, Grouping - PL/SQL : Functions, Procedures, Triggers, Views -Embedded SQL - Dynamic SQL