HS6251	TECHNICAL ENGLISH II		L T P EL C 4 0 0 3 5
MODULE 1	**GIVING INSTRUCTIONS AND MAKING RECOMMENDATIONS**	**Oral Fluency**: giving oral instructions and recommendations to carry out short processes. (e.g. how to maintain a smart phone)-**Language Focus:** use of imperatives and modal verbs (linguistic acts of instructing and recommending)-**Lexical Development**: learning content-related vocabulary-derivatives-functional variations (use of affixes)-stress shift-**Reading Comprehension**: language of advertising-(features)-passages discussing the uses of any particular product-**Listening**- to a product description and listing the uses of the product-**Writing-** designing an advertisement (language component of about 70-100 words)	At the end of the module, students should be able to: • Give instructions and make recommendations • Articulate sounds in English with appropriate stress shift in accordance with the meaning and grammar of words

		SUGGESTED ACTIVITIES	**SUGGESTED EVALUATION METHODS**
		• Lectures on the Communicative aspects of language use. • Practical-Listening, Speaking and Writing	• Quizzes • Assignments • Small Group Work
			12 0 0 9
MODULE 2	**ASKING AND ANSWERING QUESTIONS**	**Oral Fluency:** short conversations (informal) in academic institutions – Group discussions – Role play Activity -**Language Focus:** speech acts (illocutionary force; making inferences) study of language in context- framing questions (asking & answering questions) - **Lexical Development-**learning specialist vocabulary related to reading texts-**Reading-**dialogues and interviews (e.g. interviews with famous personalities)-**Writing:** dialogue writing-introduction to e-mail writing (personal)	At the end of the module, students should be able to: • Participate in conversations in informal contexts • Learn to use specialist vocabulary in appropriate contexts.
		SUGGESTED ACTIVITIES	**SUGGESTED EVALUATION METHODS**
		• Lectures on the Communicative aspects of language use. • Practical-Listening, Speaking and Writing	• Quizzes • Assignments • Small Group Work
			12 0 0 9

MODULE 3	**ASKING AND ANSWERING QUESTIONS**	**Oral Fluency**: making power point presentations (modus operandi to be given)-debating skills-**Language Focus**- use of adjectival and adverbial forms-**Lexical Development:** content related vocabulary-use of abbreviations and acronyms-**Reading**-passages on making presentations and making notes -preparation of slides-**Writing** - practice in note making and note taking- **Listening** – watching a presentation and completing a worksheet **SUGGESTED ACTIVITIES** • Lectures on the Communicative aspects of language use. • Practical- Listening, Speaking and Writing	At the end of the module, students should be able to: **SUGGESTED EVALUATION METHODS** • Make professional Power Point Presentations • Quizzes • Assignments • Power Point Presentations • Use note making and note taking skills effectively • Small Group Work
			12 0 0 9
MODULE 5	**WRITING PROJECT REPORTS**	**Oral Fluency**: Asking and answering questions (e.g. discussion on training received in school/imaginary training programme)-**Language Focus:** direct and indirect forms of narration-use of simple past and past continuous tense forms of verbs-use of modal verbs-formation of questions (interrogative and yes/no type of questions)-passive voice-**Lexical Development**: factual vs. emotive use of vocabulary-reporting verbs-**Reading:** industry /internship report-**Writing:** report on a training programme (model to be provided)-SWOT analysis- **Role Play:** going abroad for work assignments-**Language Focus**: active voice-use of punctuation marks-simple past and simple present perfect tenses-**Lexical Development**: specialist vocabulary (letter writing)-**Reading** – vision statement work summary job application-statement of purpose- **Listening:** listening to a talk and making notes- **Writing-** applying for a job (letter& e-mail) - bio data/resume **SUGGESTED ACTIVITIES** • Lectures on the Communicative aspects of language use. • Practical- Listening, Speaking and Writing	At the end of the module, students should be able to: **SUGGESTED EVALUATION METHODS** • Quizzes • Ask and answer different types of questions • Assignments • Power Point Presentations • Small Group Work • Write a purpose-oriented, factual, report
			12 0 0 9
MODULE 4	**ELABORATING ON ONE'S QUALIFICATIONS AND ACHIEVEMENTS**	**Oral Fluency:** Oral Fluency: **Listening:** to a report and completing a worksheet **SUGGESTED ACTIVITIES** • Lectures on the Communicative aspects of language use. • Practical- Listening, Speaking and Writing	At the end of the module, students should be able to: • Write a job application and draw a suitable bio data forms **SUGGESTED EVALUATION METHODS** • Quizzes • Read and understand the purposes of different types of writing • Assignments • Power Point Presentations • Small Group Work
			12 0 0 9

METHODS TO BE USED DURING CLASSROOM TEACHING

The following methods would be used to achieve programme objectives.

For language skills development:

1. Focus on fluency first for students with limited proficiency. Students would first develop the confidence to express themselves without being inhibited by errors.
2. Guided activities for speaking and writing with vocabulary and information provided as input.
3. Focus on simplicity and clarity than on the use of unnecessarily complex sentences and high- sounding words. Focus on clear organization of any spoken or written message.
4. Adequate preparation time given for demonstration of skills.
5. Sensitivity to issues of shyness and introversion and avoiding coercive methods.
6. Use of relevant techno- social topics on which students have opinion.
7. Use of listening and reading to improve vocabulary.
8. Peer evaluation using feedback templates to allow students to practice in small groups on their own. A session with 30 students needs to allow adequate opportunity to all students.
9. Teacher correction of individual writing scripts with feedback.

FOR COMMUNICATION SKILLS DEVELOPMENT:

1. Focus on essential and time- tested principles of communication that are applicable in most contexts.
2. Avoiding formulae but providing basic templates that can be adapted to situations.
3. Avoiding complex behavioral theories or pop psychology as communication guides.
4. Using situations that students would typically encounter on campus and later at work.
5. Gradual building of confidence by progressing from communication in front of small groups to communication in front of larger groups.

ASSESSMENT

Skills other than speaking would be tested using a paper and pencil test. Speaking skills will be tested using a verbal test.

TEXTBOOK:

1. ENGLISH Today: Technical Communication for Science, Engineering and Technology. Board of Editors, Department of English, Anna University. Orient Black Swan (Volumes 1&2) 2017.

REFERENCES:

1. Learning to Communicate: Dr. V. Chellammal, Allied Publishers, 2002.
2. English for Technical Communication: N.P. Sudharshana, C. Savitha, Cambridge University Press, 2016.

EVALUATION METHOD TO BE USED:

Sl. no	Category of Courses	Continuous Assessment	Mid –Semester Assessment	End Semester
1.	Theory	40	20	40

CY6251 ENGINEERING CHEMISTRY	L	T	P	EL	CREDITS
	3	0	2	3	5

OBJECTIVES:

- To develop an understanding about fundamentals of polymer chemistry, preparation and properties of polymers
- To acquire knowledge in photochemistry and spectroscopy
- To understand the concepts of surface chemistry and catalysis.
- To impart basic knowledge on chemical thermodynamics.
- To get acquainted with the basic concepts of nano chemistry.
- To understand the chemistry of the fabrication of integrated circuits
- To know the types of specialty materials used in the electronics/electrical industry.

MODULE I :	L	T	P	EL
	3	0	2	3

Polymer Chemistry: Introduction: Functionality; Classification of Polymers- Natural and Synthetic, Thermoplastic and Thermosetting. Types and Mechanism of Polymerization: Addition (Free Radical, Cationic, Anionic and Living); Condensation and Copolymerization. Piezo and pyro electric polymers; Photoresists – Positive and negative.

SUGGESTED ACTIVITIES :

- In Class activity for Functionality and Mechanism of polymerisation
- Practical – Thermal free radical polymerisation of styrene/MMA

SUGGESTED EVALUATION METHODS:

- Tutorial : Deduce type of polymer from monomers with different functionalities
- Assignment : Predicting mechanism of polymerization for few important monomers
- Quizzes

MODULE II :	L	T	P	EL
	3	0	2	3

Properties of Polymers: T_g, Tacticity, Degree of Polymerization & Molecular Weight - Weight Average, Number Average and Polydispersity Index. Techniques of Polymerization: Bulk, Emulsion, Solution and Suspension

SUGGESTED ACTIVITIES :

- Flipped classroom and activity
- Proofs and Simplification in class
- Practical – Determination of molecular weight of PVA using Ostwald viscometer