National University of Engineering (UNI)
School of Artificial Intelligence
Syllabus 2027-I

1. COURSE

BEI102. Technical and professional English II (Mandatory)

2. GENERAL INFORMATION

2.1 Course	:	BEI102. Technical and professional English II
2.2 Semester	:	2nd Semester.
2.3 Credits	:	2
2.4 Hours	:	4 HP;
2.5 Duration of the period	:	16 weeks
2.6 Type of course	:	Mandatory
2.7 Learning modality	:	Face to face
2.8 Prerrequisites	:	BEI101. Technical and professional English I. (1st Sem)

3. PROFESSORS

Meetings after coordination with the professor

4. INTRODUCTION TO THE COURSE

Building on foundational English skills, this course develops the student's ability to communicate in technical and scientific contexts with greater fluency. Grammar structures are practiced through reading and producing descriptions of technological systems, scientific phenomena, and engineering processes. Students gain vocabulary relevant to computing, data, and the physical sciences.

5. GOALS

- Develop fluency in English applied to technical and scientific communication.
- Expand vocabulary in computing, data, and engineering domains.

6. COMPETENCES

AG-C03) Individual and Team Work: Performs effectively as an individual and as a member or leader in diverse teams. (Familiarity)

AG-C04) Communication: Communicates effectively in complex computing activities. (Usage)

7. TOPICS

Unit 1: Breakthroughs and Discoveries (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	**Learning Outcomes**
• Simple Past Review: Affirmative and Negative in scientific contexts. • Time expressions with 'ago': When technologies were invented or released. • Conjunctions: and, so, but, because — structuring technical explanations. • Vocabulary: Scientific milestones, inventions, and discoveries.	• By the end of the unit, students narrate past technological breakthroughs and connect cause-and-effect relationships using simple past and conjunctions (e.g., "Scientists discovered X, so engineers developed Y").
Readings : [**Soars021S**], [**Cambridge06**], [**MacGrew99**]	

Unit 2: Data and Variables (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	**Learning Outcomes**
• Countable and Uncountable nouns in computing: files, data, code, memory. • Use of some, any, a lot of in quantifying technical resources. • Expressions of quantity: a little memory, a few errors, too many processes. • Vocabulary: Data types, variables, constants, and storage units.	• Students correctly use countable and uncountable noun structures to describe data, resources, and system states in technical contexts.
Readings : [**Soars021S**], [**Cambridge06**], [**MacGrew99**]	

Unit 3: Future of Technology (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	**Learning Outcomes**
• Future plans: Verb + to + infinitive in project planning. • Use of 'Will' vs 'Going to' for predictions and scheduled releases. • Auxiliary verbs in forecasting: AI trends, cloud computing, quantum computing. • Vocabulary: Emerging technologies and career pathways in computing.	• Students express technological intentions and project plans, as well as make evidence-based predictions about computing and engineering trends.
Readings : [**Soars021S**], [**Cambridge06**], [**MacGrew99**]	

Unit 4: Comparing Technologies (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	**Learning Outcomes**
• Comparative and superlative adjectives applied to hardware and software. • Comparing programming languages, operating systems, and algorithms. • Synonyms and antonyms in technical vocabulary. • Reading: Short technology comparison articles and benchmark reports.	• Students make detailed technical comparisons between systems, languages, and tools, using comparative and superlative structures accurately.
Readings : [**Soars021S**], [**Cambridge06**], [**MacGrew99**]	

Unit 5: Running Processes (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	**Learning Outcomes**
• Present Continuous to describe active and ongoing technical processes. • Current use: "The server is processing requests." • Future use with Present Continuous: scheduled deployments and experiments. • Writing: Status updates and progress reports in technical projects.	• Students describe active computing processes, ongoing experiments, and scheduled technical activities using the present continuous form.
Readings : [**Soars021S**], [**Cambridge06**], [**MacGrew99**]	

Unit 6: Software Milestones (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	**Learning Outcomes**
• Introduction to Present Perfect to describe achievements with current relevance. • Keywords: ever, never, yet, just — applied to software releases and research. • Vocabulary: Version history, patches, upgrades, published papers. • Reading: Technology news and software changelogs.	• Students communicate technical achievements and software milestones with present relevance, without specifying an exact time, using the present perfect.
Readings : [**Soars021S**], [**Cambridge06**], [**MacGrew99**]	

Unit 7: Technical Challenges (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	**Learning Outcomes**
• Adjectives ending in -ed and -ing to describe technical experiences and processes. • Modal verbs of obligation: must, have to — applied to engineering requirements. • Vocabulary: Engineering challenges, constraints, trade-offs, and standards. • Writing: Short technical problem statements.	• Students describe the emotional and technical aspects of engineering challenges and express obligations and constraints using specialized vocabulary.
Readings : [**Soars021S**], [**Cambridge06**], [**MacGrew99**]	

Unit 8: English for Technology II (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	**Learning Outcomes**
• Technical terminology: Input/output devices, storage, and peripherals. • Reading and following software installation and configuration instructions. • Communication in technical support: Describing symptoms and solutions. • Presentation: Describing a computing system to a non-specialist audience.	• By the end of the course, students interpret technical instructions, describe hardware components, and communicate basic computing concepts to diverse audiences in English.
Readings : [**Soars021S**], [**Cambridge06**], [**MacGrew99**]	

8. WORKPLAN

8.1 Methodology

Individual and team participation is encouraged to present their ideas, motivating them with additional points in the different stages of the course evaluation.

8.2 Theory Sessions

The theory sessions are held in master classes with activities including active learning and roleplay to allow students to internalize the concepts.

8.3 Practical Sessions

The practical sessions are held in class where a series of exercises and/or practical concepts are developed through problem solving, problem solving, specific exercises and/or in application contexts.

9. EVALUATION SYSTEM

********* EVALUATION MISSING ********

10. BASIC BIBLIOGRAPHY