



National University of Engineering (UNI)
School of Computer Science
Syllabus 2026-I

1. COURSE

BEI101. Technical and professional English I (Mandatory)

2. GENERAL INFORMATION

2.1 Course	: BEI101. Technical and professional English I
2.2 Semester	: 1 st 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 Prerequisites	: None

3. PROFESSORS

Meetings after coordination with the professor

4. INTRODUCTION TO THE COURSE

English is the primary language of science, engineering, and technology worldwide. For computing and engineering students, mastering English means gaining direct access to technical documentation, research papers, and professional collaboration without translation barriers. This course builds foundational English skills using contexts drawn from computing systems, hardware, and the everyday work of engineers and scientists.

5. GOALS

- Acquire foundational English grammar structures applied to computing and engineering contexts.
- Identify and use technical vocabulary related to hardware, software, and scientific concepts.

6. COMPETENCES

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

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

7. TOPICS

Unit 1: Welcome to Computing (12 hours)	
Competences Expected: AG-C03, AG-C04	
Topics	Learning Outcomes
• Verb To Be: Affirmative, Negative, and Questions. • Personal Pronouns and Possessive Adjectives. • Number Expressions (1-100): Ports, addresses, and binary basics. • Social Expressions in academic and lab environments.	• By the end of the unit, students use the verb 'to be' to introduce themselves as computing students and describe basic properties of computing systems (e.g., "The processor is fast. It is a 64-bit CPU.").
Readings : [SJ02], [Cam06], [Mac99]	

Unit 2: Parts and Systems (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	Learning Outcomes
• Possessive 's and Plural Nouns applied to components (the CPU's speed, the system's memory). • Hardware components and their relationships. • Adjective + Noun structures for technical descriptions. • Lab interactions: Asking about equipment and tools.	• Students describe computer hardware components and their relationships using possessives and noun phrases (e.g., "the motherboard's slots", "the server's processors").
Readings : [SJ02], [Cam06], [Mac99]	

Unit 3: How It Works (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	Learning Outcomes
• Present Simple I (Third person: He/She/It) to describe processes. • Vocabulary: How programs, algorithms, and devices operate. • Telling the time and interpreting system clocks and schedules. • Verbs of operation: runs, compiles, executes, stores, transmits.	• Students explain how a program or device works using the present simple in the third person (e.g., "The compiler translates source code. It generates an executable file.").
Readings : [SJ02], [Cam06], [Mac99]	

Unit 4: What Engineers Do (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	Learning Outcomes
• Present Simple II (I/You/We/They) for describing professional routines. • Questions and negatives with 'Do/Does' in technical contexts. • Engineering roles: developer, analyst, researcher, systems engineer. • Adverbs of frequency in describing work cycles and testing schedules.	• Students describe the daily tasks and professional roles of computing engineers and scientists using the present simple with accuracy.
Readings : [SJ02], [Cam06], [Mac99]	

Unit 5: Inside a Computer (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	Learning Outcomes
• Existential: There is / There are applied to architecture descriptions. • Prepositions of place: components on a motherboard, files in a directory. • Vocabulary: memory, storage, buses, slots, ports, layers. • Describing network topology and physical infrastructure.	• Students describe the spatial organization of hardware components and file systems, enabling them to interpret and produce technical architecture descriptions.
Readings : [SJ02], [Cam06], [Mac99]	

Unit 6: Can Computers Think? (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	Learning Outcomes
• Modal verb Can/Can't to describe computing capabilities and limitations. • Adverbs of manner applied to system performance. • Past of verb 'To Be' (Was/Were): early computing systems and pioneers. • Basic expressions for technical support and troubleshooting.	• Students describe what computing systems can and cannot do, and identify basic facts about the early history of computing using simple past structures.
Readings : [SJ02], [Cam06], [Mac99]	

Unit 7: Computing History (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	Learning Outcomes
• Past Simple: Regular and Irregular verbs to narrate tech history. • Time expressions for the past: invented, developed, published, launched. • Key figures: Turing, Babbage, Lovelace, von Neumann. • Vocabulary: Generations of computers, milestones, inventions.	• Students narrate key events in the history of computing and science using the simple past correctly, identifying the contributions of foundational figures.
Readings : [SJ02], [Cam06], [Mac99]	

Unit 8: My Professional Goals in Computing (12 hours)	
Competences Expected: AG-C03,AG-C04	
Topics	Learning Outcomes
• Introduction to Technical English for Computing and Engineering. • Reading and understanding simple technical specifications. • Working in multicultural engineering teams: communication norms. • Oral presentation: "My role in the computing field".	• Students present their professional goals in computing using basic technical vocabulary and connect them to the roles and responsibilities of software and hardware engineers.
Readings : [SJ02], [Cam06], [Mac99]	

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

- [Mac99] James MacGrew. *Focus on Grammar Basic*. Editorial Oxford, 1999.
- [SJ02] Liz Soars and John. *American Headway N 2 Student Book*. Editorial Oxford, 2002.
- [Cam06] Cambridge. *Diccionario Inglés-Español Cambridge*. Editorial Oxford, 2006.