Module : Technical English

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Specialty : Informatics

Introduction:

English plays a vital role in the field of Informatics and Information Technology. Most programming languages, software documentation, research papers, and technological innovations are developed and communicated in English. Therefore, mastering English is not only a linguistic skill but also a professional necessity for informatics students.

This course is designed to help first-year informatics students develop essential English language skills needed for academic study and future careers in technology. The semester is divided into four main parts. **Vocabulary** focuses on technical and general terms commonly used in computing and digital environments. **Grammar** provides the fundamental structures required for clear and accurate communication. **Written expression** aims to develop students' ability to write emails, reports, and short technical texts. Finally, **oral expression** helps students improve their speaking and listening skills through presentations, discussions, and everyday professional situations.

By the end of the semester, students will be able to understand, use, and communicate in English more confidently in both academic and technological contexts.

PART ONE : Vocabulary

Vocabulary in Informatics :

1. Introduction to Informatics Vocabulary

Informatics vocabulary includes the basic terms used to describe computers, software, hardware, and digital systems.
Understanding these terms helps students read technical texts, follow lectures, and communicate effectively in academic and professional contexts.

2. Computer Hardware Vocabulary :

Common terms related to physical components of a computer:

- **Hardware**: physical parts of a computer
- **CPU (Central Processing Unit)**: the "brain" of the computer
- **RAM (Random Access Memory)**: temporary memory used for running programs
- **Hard drive / SSD**: permanent data storage
- **Keyboard, mouse, monitor**: input and output devices

3. Software and Operating Systems:

Vocabulary related to programs and system management:

- **Software**: programs and applications
- **Operating system (OS)**: manages hardware and software (e.g. Windows, Linux)
- **Application**: software designed for a specific task

- **Install / update / uninstall**: actions performed on software

4. Programming and Coding Terms:

Basic terms used in programming:

- **Program**: a set of instructions
- **Algorithm**: step-by-step solution to a problem
- **Code**: written instructions in a programming language
- **Variable**: a value that can change
- **Function**: a reusable block of code
- **Debugging**: finding and fixing errors

5. Data and Information:

Key terms related to data processing:

- **Data**: raw facts and numbers
- **Information**: processed and meaningful data
- **Database**: organized collection of data
- **File / folder**: units for storing data
- **Input / output**: data entered and results produced

6. Internet and Networking Vocabulary:

Essential networking and web-related terms:

- **Internet**: global network of computers
- **Network**: connected devices sharing data

- **Server / client**: provider and user of services
- **Website / web page**: online content
- **Download / upload**: data transfer actions

7. Cybersecurity and Ethics (Basic):

Introductory security vocabulary:

- **Password**: secret access code
- **Virus / malware**: harmful software
- **Firewall**: system that protects networks
- **Privacy**: protection of personal data

Conclusion

Mastering informatics vocabulary allows students to better understand technical content, improve communication, and succeed in their studies. This foundational vocabulary is essential for learning programming, networking, and advanced informatics concepts.

Part two : Grammar

Lesson 1: English Tenses:

There are three main tenses in English :

(Past – Present – Future).

1. Present Tense

. Simple Present

Use: facts, routines, general truths, definitions (very common in informatics).

Form:
Subject + base verb (+ s/es for the pronouns he/she/it)

Examples (Informatics):

- A computer **processes** data.
- Programmers **use** algorithms to solve problems.
- The CPU **executes** instructions.

2. Past Tense

. Simple Past:

Use: completed actions in the past.

Form:
Subject + verb (past form)

Examples:

- The program **crashed** yesterday.
- The engineer **installed** the software.
- We **debugged** the code last week.

3. Future Tense

. Simple future :

Use: decisions at the moment, predictions.

Form:
Subject + will + base verb

Examples:

- The system **will restart** automatically.
- This software **will improve** performance.
- The program **will generate** an error.

PS : there is a list of regular and irregular verbs we use it in the simple past form .

1. Regular Verbs (base – past – past participle)

☞ Regular verbs form the past by adding -ed.

- **work – worked – worked**
- **use – used – used**
- **install – installed – installed**

- develop – developed – developed
- program – programmed – programmed
- test – tested – tested
- start – started – started
- stop – stopped – stopped
- open – opened – opened
- close – closed – closed
- save – saved – saved
- update – updated – updated
- download – downloaded – downloaded
- upload – uploaded – uploaded
- connect – connected – connected
- disconnect – disconnected – disconnected
- analyze – analyzed – analyzed
- design – designed – designed

2. Irregular Verbs (base – past – past participle)

👉 Irregular verbs do not follow the -ed rule and must be memorized.

- be – was / were – been
- have – had – had
- do – did – done
- go – went – gone
- make – made – made
- take – took – taken
- give – gave – given
- get – got – got
- come – came – come

- see – saw – seen
- write – wrote – written
- read – read – read
- run – ran – run
- build – built – built
- think – thought – thought
- know – knew – known
- find – found – found
- keep – kept – kept
- choose – chose – chosen
- begin – began – begun

Lesson 02 : Parts of Speech

Introduction

In English, words are grouped into categories called **parts of speech** according to their function in a sentence. Understanding parts of speech helps students build correct sentences, understand technical texts, and communicate clearly in informatics and technology contexts.

1. Nouns

Definition: name of people, places, things, or ideas.

Examples:

- computer, software, data, program, network, server

In sentences:

- The **computer** processes data.
- A **database** stores information.

Types of nouns:

- **Common nouns:** computer, program
- **Proper nouns:** Windows, Linux
- **Abstract nouns:** information, security

2. Pronouns

Definition: Pronouns replace nouns to avoid repetition.

Common pronouns: it, they, he, she, which, that

Examples:

- The software is efficient. **It** runs fast.
- Computers are useful. **They** save time.

3. Verbs

Definition: Verbs show actions or states.

Examples:

- run, execute, process, install, store

In sentences:

- The system **executes** commands.
- Students **learn** programming.

Types of verbs:

- **Action verbs:** run, install
- **Linking verbs:** be, seem
- **Auxiliary verbs:** do, have, will

4. Adjectives

Definition: Adjectives describe nouns.

Examples:

- digital, fast, secure, automatic

In sentences:

- A **secure** network protects data.
- The **digital** system is efficient.

☞ Adjectives usually come **before the noun**.

5. Adverbs

Definition: Adverbs describe verbs, adjectives, or other adverbs.

Common adverbs: quickly, efficiently, automatically

In sentences:

- The program runs **efficiently**.
- The system updates **automatically**.

☞ Many adverbs end in **-ly**.

1. Adverbs of Manner

(How something happens)

- quickly
- slowly
- carefully
- efficiently
- correctly
- automatically
- manually
- safely
- easily
- badly

Examples:

- The program runs **efficiently**.
- Data is processed **automatically**.

2. Adverbs of Time

(When something happens)

- now
- today
- yesterday
- recently
- already
- just
- soon

- later
- always
- never

Examples:

- The system is **currently** updating.
- The software was installed **yesterday**.

3. Adverbs of Frequency

(How often)

- always
- usually
- often
- sometimes
- rarely
- never
- frequently

Examples:

- Programmers **often** test their code.
- The server **always** runs in the background.

4. Adverbs of Place

(Where)

- here

- there
- inside
- outside
- online
- offline
- everywhere

Examples:

- The data is stored **online**.
- The user is logged in **here**.

5. Adverbs of Degree

(How much / how strong)

- very
- too
- quite
- extremely
- nearly
- almost
- enough

Examples:

- The system is **very** fast.
- The file is **too** large.

6. Adverbs of Probability / Certainty

- probably

- possibly
- definitely
- certainly
- maybe

Examples:

- The error will **probably** appear again.
- The update will **definitely** improve performance.
-

NP : The types of adverbs are just examples as an extra information they
Are not included in the exam .

6. Prepositions

Definition: Prepositions show relationships of place, time, or movement.

Common prepositions: in, on, at, between, under

Examples:

- Data is stored **on** the hard drive.
- The server is **in** the network.

7. Conjunctions

Definition: Conjunctions connect words, phrases, or sentences.

Common conjunctions: and, but, because, so

Examples:

- The program runs, **but** it has errors.
- The system failed **because** the power was off.

8. Interjections

Definition: Interjections express emotions or reactions.

Examples:

- Oh! The program crashed.
- Wow! The application works perfectly.

Summary Table

Part of Speech	Function	Example
Noun	Names of things	computer
Pronoun	Replaces nouns	it
Verb	Shows action	run
Adjective	Describes nouns	secure
Adverb	Describes actions	quickly
Preposition	Shows relation	on
Conjunction	Connects ideas	because
Interjection	Expresses feeling	wow!

Conclusion

Understanding parts of speech helps informatic students write clear code comments, technical reports, and professional emails. It is a fundamental step toward mastering English for technology and academic success.

Lesson 3: Types of Sentences

Introduction

Sentences are classified according to their **purpose** and **structure**. Understanding the different types of sentences helps informatics students write clear instructions, ask correct questions, and communicate effectively in academic and technical contexts.

1. Affirmative (Positive) Sentences

Definition:
Affirmative sentences state a fact, give information, or express an idea.

Structure:
Subject + Verb + Object / Complement

Examples:

- The computer **processes** data.
- Students **learn** programming languages.
- The system **stores** information securely.

2. Negative Sentences

Definition:
Negative sentences show that something is **not true** or **does not happen**.

Structure:

- Present: *do / does + not + verb*
- Past: *did + not + verb*
- Future: *will + not + verb*

Examples:

- The program **does not run** correctly.
- The computer **did not save** the file.
- The system **will not start** without power.

3. Interrogative Sentences (Questions)

A. Yes / No Questions

Definition:
Questions that can be answered with **Yes** or **No**.

Structure:
Auxiliary verb + Subject + Main verb

Examples:

- **Does** the computer work properly?

- **Is** the server online?
- **Did** you install the software?
- **Will** the system restart?

B. WH-Questions

Definition:
Questions that ask for **specific information**.

WH-Words:
what – where – when – why – who – how

Structure:
WH-word + auxiliary verb + subject + verb

Examples:

- **What** does the CPU do?
- **Where** is the data stored?
- **Why** did the program crash?
- **How** does the algorithm work?

Summary Table

Type of Sentence	Function	Example
Affirmative	Gives information	The system works.
Negative	Denies information	The program does not run.
Yes / No Question	Asks for confirmation	Does the file exist?

Type of Sentence	Function	Example
WH-Question	Asks for details	Where is the server?

Conclusion

Mastering sentence types helps informatics students write clear technical instructions, ask correct questions, and communicate efficiently in academic and professional environments.

Lesson04 : Clauses

Introduction

A **clause** is a group of words that contains a **subject** and a **verb**. Clauses are used to build simple and complex sentences. Understanding clauses helps students read technical texts, write clear explanations, and express ideas accurately in informatics.

1. Independent Clauses

Definition:
An **independent clause** expresses a complete idea and can stand alone as a sentence.

Structure:
Subject + Verb (+ Object / Complement)

Examples:

- The computer **processes data**.

- The program **runs correctly**.
- Students **learn programming**.

☞ Each sentence above is complete by itself.

2. Dependent (Subordinate) Clauses

Definition:
A **dependent clause** has a subject and a verb but **cannot stand alone**. It depends on an independent clause to complete its meaning.

Example:

- The program fails **because the code is incorrect**.

☞ *Because the code is incorrect* cannot be a sentence alone.

3. Types of Dependent Clauses

A. Noun Clauses

Definition:
A **noun clause** functions like a noun. It can be a **subject**, **object**, or **complement**.

Common starters:
that, what, who, whether, if

Examples:

- **What the program does** is important. *(subject)*
- I know **that the system needs an update**. *(object)*

- The problem is **that the file is missing**. *(complement)*

B. Adjective Clauses

Definition:
An **adjective clause** describes or gives more information about a noun.

Common relative pronouns:
who, which, that, where

Examples:

- The software **that we installed** is secure.
- A server **which stores data** must be protected.
- The programmer **who wrote the code** fixed the error.

☞ Adjective clauses come **after the noun** they describe.

C. Adverb Clauses

Definition:
An **adverb clause** explains **condition**, cause and time when something happens.
when, because, if.

Examples:

- The system shuts down **when it overheats**. *(time)*
- The program failed **because the code was incorrect**. *(reason or cause)*
- **If the user enters wrong data**, the system shows an error. *(condition)*

Summary Table

Clause Type	Function	Example
Independent	Complete idea	The system works.
Noun Clause	Acts as a noun	that program is important.
Adjective Clause	Describes a noun	Ahmed who is the first in class.
Adverb Clause	Shows time/reason/condition	If the code fails

Conclusion

Understanding independent and dependent clauses helps informatic students write clear explanations, technical reports, and well-structured sentences in English.

Part three : Written expression

Lesson 01: Writing a Paragraph

Introduction

Writing clear paragraphs is a fundamental skill for academic and professional communication. A **paragraph** is a group of sentences that focuses on **one main idea**. In informatics, paragraphs are used in reports, technical documentation, emails, and project descriptions.

1. What is a Paragraph?

- A paragraph is a group of related sentences that develop **one main idea**.
- It helps organize thoughts and makes writing easier to read and understand.

Example :

Data security is a crucial aspect of any computer system. Companies must protect sensitive information from hackers. Using strong passwords and encryption methods helps prevent unauthorized access. Regular updates and monitoring ensure

that the system remains secure. Therefore, maintaining good data security practices is essential for any organization.

2. Structure of a Paragraph

A well-structured paragraph usually includes three main parts:

A. Topic Sentence

- **Definition:** The sentence that expresses the **main idea** of the paragraph.
- Usually the first sentence.
- Guides the reader about what the paragraph is about.

Examples :

- *Cybersecurity is essential for protecting digital information.*
- *Programming skills are important for solving computing problems.*

B. Supporting Sentences

- **Definition:** Sentences that **develop the main idea** with details, examples, or explanations.
- They provide evidence or clarification.

Examples:

- *Strong passwords and two-factor authentication help prevent unauthorized access.*

- *Learning different programming languages allows developers to solve diverse problems.*

C. Concluding Sentence

- **Definition:** The sentence that **wraps up the paragraph**.
- Restates the main idea or gives a final thought.

Examples:

- *Therefore, every organization must implement strong cybersecurity measures.*
- *In conclusion, programming skills are vital for success in the IT field.*

3. Paragraph Example :

Topic Sentence: *Artificial intelligence is transforming the IT industry.*

Supporting Sentences:

- *AI systems can process large amounts of data quickly.*
- *They help automate repetitive tasks, increasing efficiency.*
- *AI tools assist developers in debugging code and detecting errors.*

Concluding Sentence:

- *Thus, artificial intelligence is becoming an essential tool for modern computing.*

4. Tips for Writing a Strong Paragraph

1. Stick to **one main idea** per paragraph.
2. Use **clear and simple sentences**.

3. Provide **examples or explanations** in supporting sentences.
4. Start with a **topic sentence** and end with a **concluding sentence**.
5. Keep your paragraph **logical and coherent**.

Lesson 02: Types of Paragraphs

Introduction

Paragraphs can serve different purposes depending on the **type of writing**. Understanding the types of paragraphs helps students express ideas clearly in academic and technical contexts, including reports, documentation, and emails.

1. Descriptive Paragraph

Definition:

- A descriptive paragraph **describes a person, place, object, or process** in detail using sensory words.
- Focuses on **how something looks, feels, works, or functions**.

Features:

- Uses adjectives and adverbs.
- Creates a vivid picture for the reader.

Example :

The new server room is spacious and well-organized. Rows of powerful servers hum quietly while blinking lights indicate activity. The cooling system keeps the temperature low, preventing hardware overheating. Cables are neatly arranged, and monitors display real-time data.

2. Narrative Paragraph

Definition:

- A narrative paragraph **tells a story** or describes **events in chronological order**.
- Often includes characters, actions, and a sequence of events.

Features:

- Uses past tense for events that already happened.
- Often answers: what happened, who was involved, when and where.

Example :

Last week, the IT team installed a new software update. First, they backed up all the data. Then, they ran the installation on the main server. Finally, they tested each program to ensure everything worked correctly. The update improved the system's speed and security.

3. Expository Paragraph

Definition:

- An expository paragraph **explains, informs, or clarifies a topic**.
- Focuses on **facts, definitions, processes, or instructions**.

Features:

- Logical and organized structure.
- Often includes examples, facts, or scientific truths.

Example :

Cloud computing allows users to store and access data over the internet. It provides flexibility, scalability, and cost efficiency. Users can share files, run applications, and collaborate on projects without needing physical hardware. Cloud services are widely used in businesses and educational institutions.

4. Persuasive Paragraph

Definition:

- A persuasive paragraph **tries to convince the reader** to accept an opinion or take action.
- Often includes reasons, examples, and strong language.

Features:

- Clear opinion or argument.
- Uses evidence, examples, or logical reasoning.

Example :

Every company should invest in cybersecurity measures. Hackers can steal sensitive information, causing financial and reputational damage. Strong passwords, firewalls, and regular

system updates reduce the risk of attacks. Therefore, implementing cybersecurity is essential for protecting company data.

Summary Table

Paragraph Type	Purpose	Key Features	Examples
Descriptive	Describe	Adjectives, sensory words	The server room is spacious and organized.
Narrative	Tell a story	Chronological events, past tense	The IT team installed a new update last week.
Expository	Explain or inform	Facts, examples, logical structure	Cloud computing allows data access over the internet.
Persuasive	Convince	Opinion, reasoning, evidence	Companies should invest in cybersecurity measures.

Conclusion

Knowing the types of paragraphs helps students write effectively in different contexts. In informatics, descriptive, narrative, expository, and persuasive paragraphs are useful for documentation, reports, emails, and presentations.

Lesson 03: Writing a Summary

Introduction

A **summary** is a brief presentation of the **main ideas** of a text, report, or lecture. It condenses information while keeping the **essential meaning** intact. Summaries are useful for studying, reporting, and sharing information in academics and professional work, especially in informatics.

1. What is a Summary?

- A summary is a **shortened version** of a longer text.
- It highlights **key points**, **main arguments**, or **important facts**.
- A good summary is **concise**, **clear**, and **accurate**.

Example :

Original text: "Cloud computing allows users to store data online and access it from any device. It reduces the need for physical hardware, increases collaboration, and saves costs for companies."

Summary: "Cloud computing enables online data storage, remote access, and cost efficiency.

2. Types of Summaries

A. Descriptive Summary

Definition:

- Focuses on **describing the content or main topic** without giving detailed analysis.
- Mainly identifies **what the text is about**.

Example :

- *The article explains cloud computing, its uses, and its benefits for businesses.*

B. Analytical Summary

Definition:

- Explains the **structure and main ideas** of the text.
- Highlights **relationships, causes, or effects**.

Example :

- *The report shows that cloud computing reduces hardware costs and improves collaboration by allowing remote access to data.*

C. Critical Summary

Definition:

- Includes **evaluation or judgment** about the content.
- Combines **summary and opinion**.

Example :

- *The article effectively explains cloud computing, but it does not address potential security risks, which are crucial for businesses.*

D. Executive Summary

Definition:

- A concise summary **designed for decision-makers**.
- Focuses on **business only .**

Example :

Business involves producing, buying, and selling goods or services to generate profit. Effective businesses plan and manage resources efficiently, meet customer needs, and adapt to market changes. Innovation, ethical practices, and sustainability are key factors for long-term success. Adopting these strategies allows businesses to remain competitive and achieve growth in a global economy

E. Thematic Summary

Definition:

- Focuses on **specific themes or topics** in the text.
- Groups related information under a central theme.

Example :

- *Theme: Security in Cloud Computing – The article emphasizes encryption, access control, and regular monitoring to prevent data breaches.*

3. Steps to Write a Summary

1. Read the text carefully.
2. Identify the main ideas and supporting points.
3. Omit examples, illustrations, and minor details.
4. Use your own words.
5. Organize the information clearly.
6. Keep it concise and accurate.

4. Summary Table

Type of Summary	Purpose	Examples
Descriptive	Describe content	The article explains cloud computing.
Analytical	Explain main ideas & relationships	Cloud computing reduces costs and improves collaboration.
Critical	Evaluate content	The article is clear but ignores security risks.
Executive	Only business	Adopting cloud computing can save 30% of IT costs.
Thematic	Focus on a specific theme	Security measures in cloud computing include encryption and monitoring.

Conclusion

Summaries help students and professionals in informatics **extract, organize, and communicate information efficiently**. Learning different types of summaries allows better comprehension, reporting, and decision-making.

Part four :
Oral expression

Oral Expression

Introduction

Oral expression is the ability to **communicate ideas clearly through speaking**. In informatics, strong oral skills are essential for giving presentations, explaining projects, participating in discussions, and collaborating in teams.

During this semester, we **practiced oral expression in the classroom** to improve students' speaking and listening skills in English, with a focus on technical and academic contexts.

1. Objectives of Oral Expression

By practicing oral expression, students learn to:

- Speak clearly and confidently.
- Organize ideas logically.
- Use appropriate vocabulary and grammar.
- Listen actively and respond correctly.
- Present technical topics effectively.

2. Classroom Activities

In the classroom, students engaged in several **oral exercises**, including:

1. **Short Presentations:** Students presented topics such as cloud computing, cybersecurity, or programming languages.
2. **Discussions and Debates:** Small groups discussed technology trends and ethical issues in informatics.
3. **Role-Play Exercises:** Students simulated workplace situations, such as explaining a program to a client.
4. **Question and Answer Sessions:** Practicing WH-questions and technical inquiries to improve spontaneous speaking.

3. Key Skills Developed

- **Fluency:** Speaking without long pauses.
- **Pronunciation:** Clear and understandable speech, especially technical terms.
- **Vocabulary Usage:** Using informatics-related terms correctly.
- **Confidence:** Reducing hesitation when speaking in front of classmates.

4. Example Activity

Task: Describe a software application in 2 minutes.
Student Example:

"This is a data analysis application. It helps users process large datasets quickly. The software can generate charts and reports automatically. It is easy to use and improves decision-making in businesses."

Conclusion

Classroom practice of oral expression helps informatics students communicate technical ideas clearly and confidently. These skills are essential for **presentations, teamwork, and professional interactions** in academic and workplace environments.

THANK YOU