

Aboubakr Belkaid University of Tlemcen.

Faculty of Sciences

M1-S1, All specialities

Mathematics department

Technical English

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Lesson 0: Introduction to the module

Objectives of the lesson:

- Understand the importance of English in scientific research.
- How to master technical English.

Part 1: Why is English essential in science?

Because : "English is the universal language of science."

1. Key Statistics:

- **Around 80% of global scientific publications are written in English.**
- **English is the communication language in international conferences and journals.**

2. In today's academic and professional world, mastering **technical English** is essential, especially in mathematics and related fields. Most research papers, conferences, and collaborations happen in English, making it the global language of science. Understanding technical terminology allows you to read and write research papers effectively, communicate ideas clearly, and collaborate with international experts.

Part 2: How to master technical English?

3. To master technical English, practice is key. Engage with academic papers, attend seminars, and actively participate in discussions. Expanding your vocabulary through specialized texts and exercises will help you become more confident in both written and spoken communication. Regular exposure, combined with practical application, will significantly improve your technical language skills over time.

4. The Four Key Skills to Develop in Technical English

To master **Technical English**, it is essential to work on the four fundamental language skills:

- 📖 **Reading**: Improves comprehension of research papers, textbooks, and technical documents. Regularly reading academic articles helps expand vocabulary and understand formal writing structures.
- 🎧 **Listening**: Enhances the ability to follow lectures, presentations, and discussions. Listening to podcasts, conferences, and scientific talks improves pronunciation and familiarizes you with technical jargon.
- ✍️ **Writing**: Develops the ability to express ideas clearly in reports, research papers, and emails. Practicing structured writing with proper grammar and terminology is crucial for academic and professional success.
- 🗣️ **Speaking**: Strengthens confidence in presenting research, participating in discussions, and networking. Engaging in conversations, explaining concepts aloud, and practicing pronunciation help improve fluency.

5. Tips to Help Master Technical English

Read Academic Papers & Textbooks 📖

- Regularly read research articles, textbooks, and journals in your field.
- Pay attention to technical terms, sentence structures, and formal writing styles.

Build a Specialized Vocabulary 📝

- Learn **common phrases** used in academic writing (e.g., "This study investigates...", "The results indicate...").

Practice Writing & Speaking 📝🧠

- Summarize research articles in your own words.
- Write short explanations of complex concepts in English.
- Discuss mathematical problems in English with classmates.

Listen to Technical Content 🎧

- Watch lectures, TED Talks, and research presentations in your field.
- Listen to podcasts related to mathematics, statistics, or scientific research.

Engage in Discussions 💬

- Join study groups where you discuss technical topics in English.
- Participate in online forums like ResearchGate.

Use AI & Language Tools 🤖

- Use tools like Grammarly for writing corrections.
- Translate complex phrases but try to **think in English** rather than translating from your native language.

Practice with Past Exam Papers & Exercises 🏆

- Work on problem sets in English to get used to mathematical terminology.
- Take practice quizzes to reinforce your understanding.

Consistency is key! The more you immerse yourself in technical English, the more natural it will become. Keep practicing, and progress will follow! 💡