

RE-VISITING MECHANICAL ENGINEERING ENGLISH IN HIGHER EDUCATION STUDIES

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1. GENERAL DESCRIPTION

The skills-based ESP textbook, entitled English for Mechanical Engineering, explores various input materials (i.e. listening and reading) and output materials (i.e. writing and speaking) pertaining to a wider field of English for Mechanical Engineering. The course material is intended for students of mechanical engineering who take their higher education courses entirely or partly in English.

English for Mechanical Engineering covers all aspects of engineering communication types, from writing technical reports and e-mails, understanding and efficient note-taking to effective participation skills and understanding a wide range of mechanical engineering spoken and written discourses in English. Furthermore, this textbook also focuses on academic communication skills and provides a progressive syllabus, which includes key vocabulary, or more specifically, diverse words and phrases used both in academic and mechanical engineering English. Packed with tips and advice provided by the authors, English for Mechanical Engineering systematically develops the essential engineering language, used in technical reports and product presentations, that students, as future engineers, would be expected to utilise as an integral part of their effective professional English language performance.

2. SUMMARY

The textbook opens with an introduction (p. 3) which sets the scene. The authors briefly state their language learning objectives and ESP methodology. In addition to this, they sketch out the world of English used in mechanical engineering, introduce the concepts relevant for the study of mechanical engineering English and then outline English-medium tertiary level studies in this specific context.

The English for Mechanical Engineering textbook contains twelve units: 1. What is Engineering? (p. 6-13), 2. Engineering Achievements (p. 14-21), 3. Forces on Materials (p. 22-29), 4. Computers in Engineering (p. 30-37), 5. Memes and Nanotechnology (p. 38-45), 6. Friction (p. 46-53), 7. The Future of Cars: Battery Power (p. 54-61), 8. Engineering and Sustainability (p. 62-69), 9. Health and Safety (p. 70-77), 10. Accident Analysis in Construction (p. 78-85), 11. Wind Turbines (p. 86-93), and 12. Water Engineering (p. 94-101), respectively. The textbook ends with “Additional material” (p. 102-108), “Wordlist” (p. 109-112), and “Transcripts” of all listening exercises (p. 113-131).

Each unit is further subdivided into four lessons that follow one general lesson sequence pattern. Namely, the first lesson within each unit contains the essential

mechanical engineering vocabulary and pertinent vocabulary skills; the second lesson always refers to reading and/or listening text, general and specific skills development, whilst the third lesson includes both reading and listening skills extension. Moreover, students are also presented with a writing assignment, which is further developed throughout the textbook. Finally, the fourth lesson within each unit contains parallel listening and/or reading text used for decoding. Vocabulary Bank and Skills Bank are welcome additions following each unit, and providing a useful unit content summary.

Reflecting the diverse aspects of today's mechanical engineering reality, English for Mechanical Engineering brings the engineering world into the higher education classroom and presents the students with illuminating insights into almost all mechanical engineering discourse features, both spoken and written, brought from all over the English-speaking engineering world, from a multitude of different mechanical engineering sectors of all sizes. This textbook is based on a unique syllabus that combines General English skills and English for Specific Purposes skills. Furthermore, this textbook benefits from both spoken and written discourses that have been previously thoroughly investigated by the authors with the aim of guaranteeing up-to-date and relevant mechanical engineering language.

Each unit enables students, future mechanical engineers, to gain a clearer understanding of essential mechanical engineering English principles and ideas. Equally commendable is the textbook authors' treatment of skills bases on genuine, recorded communications from different sources, which further allows students to grasp how mechanical engineers really communicate in order to help them perform successfully themselves when they enter the English-speaking mechanical engineering world. Easy and enjoyable to teach, English for Mechanical Engineering combines proven General English communicative methodology with a practical ESP-based approach. Also, another obvious merit lies in the solid structure of the textbook. The textbook features a clear specific vocabulary presentation, a thorough ESP grammar syllabus, as well as the functional mechanical engineering language with systematic practice of all four skills.

English for Mechanical Engineering places special emphasis on helping future mechanical engineers to become both confident and competent speakers of English for Mechanical Engineering. All the activities within each unit enable students entering English-medium tertiary level studies to clearly see the concrete results of their language learning, as well as their mechanical engineering English progress. Additionally, the textbook's lessons equip students to read and understand authentic mechanical engineering discourse. Thought-provoking exercises and interactive tasks enhance the students' ability to interpret and appreciate mechanical engineering English written and spoken materials. Extra work materials take students beyond pure text reading and comprehension to expand their specialised knowledge of engineering topics while building globalisation-driven engineering language skills.

3. EVALUATION

English for Mechanical Engineering covers all types of written and spoken engineering communications thereby preparing students to work effectively with colleagues in the English-speaking world. This textbook covers a fresh and highly flexible approach to one specific part of ESP - English for Mechanical Engineering. Separating ESP from General English skills development makes this textbook more than ideal for tertiary-level studies

English classes. The intensive all-four skills exercises and interactive materials offer additional practice for mechanical engineering English discourse. In addition to this, the comprehensive range of engineering language components gives both the potential users and ESP teachers the ultimate flexibility to tailor the textbook's units to individual needs, thereby ensuring the acquisition of the essential mechanical engineering language tools. Not only are the new phrases and words pithily explained when introduced, but the textbook also provides a well-chosen word list as a most welcome addition.

This textbook provides a comprehensive, up-to-date ESP learning package, which develops all the necessary skills mechanical engineering students need as they prepare for their future careers in English-speaking engineering world. It might be said that key properties of the textbook are found in authors' clear explanations, detailed guidance on diverse strategies to improve the overall ESP performance, as well as a wide range of practical exercises and concrete mechanical engineering discourse examples to extend all four skills. Written by authors with vast ESP and EFL experience, English for Mechanical Engineering provides a complete package for students wishing to improve their mechanical engineering English proficiency. Furthermore, the textbook is based on ESP classroom-tested written and spoken language material, so the potential users may be confident of a well-balanced textbook lessons' route.

To conclude, the textbook English for Mechanical Engineering is perfect for students preparing for professional careers in mechanical engineering domain, as well as professionals looking to further enhance their engineering English. By presenting the key mechanical engineering topics through authentic spoken and written discourse chunks, this textbook provides students with the engineering language they need in order to function in the English-speaking mechanical engineering environment. English for Mechanical Engineering whets the appetite for further ESP discourse skills development, particularly in a mechanical engineering environment that uses English as its official language. Since English for Mechanical Engineering provides refreshingly clear and original ESP language explanations, and also addresses typical mechanical engineering topics that future professional engineers encounter, I wholeheartedly recommend this textbook to future mechanical engineers who want to become proficient in written and spoken mechanical engineering English.