

Graduate Attribute 6

Technical and professional communication

RANGE STATEMENT

Communication should not be seen as an isolated or discrete skill but as a social practice that needs to be developed over time. Practices require multiple opportunities for development and vary across different social contexts.

Goals for technical and professional communication

- Graduates should be able to use a **variety of modes of communication** (including
 written, spoken, drawn and visual modes)
 to communicate technical and abstract
 information in simple terms.
- Graduates should be able to communicate within a variety of genres of communication (including, for example, essays, design reports, technical reports, and so on).
- Graduates should be able to tailor their communication (through language use, modes used etc) to a **variety of audiences**, specifically non-engineering audiences and, potentially, audiences with relatively low levels of education.

- Graduates should be able to achieve clarity of expression and a balance between clear, jargon-free descriptions without removing the substance of what they are communicating about. This may include the use of appropriate editing tools, such as spell checkers, Grammarly, and so on.
- Graduates should be able to use appropriate document formatting styles and/or technical requirements.
- Graduates should be able to acknowledge the sources of their ideas and avoid plagiarism (possibly through using tools to detect such plagiarism).
- Graduates should also demonstrate **confidence and conviction** (even enthusiasm and interest) in what they are communicating about.

Strategies and tools





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Strategies and tools to communication goals

CURRICULAR (RE)DESIGN

There should be conscious efforts to develop students' communication practices through real-world activities and detailed feedback.

This requires team teaching, industry collaboration and innovative design of assessment tasks such that they integrate communication into the accomplishment of engineering work.

To this end, modules need to have credits appropriate to develop the required practices and development of communication needs to be scaffolded as part of all modules and throughout the curriculum, rather than in isolated communication modules.

Such a curriculum gives students more time to reflect, think, synthesise and develop these practices.

REAL-WORLD EXPERIENCE

We should be measuring the development of this graduate attribute through feedback obtained from real-world audiences.

But, where this is not possible, contextualized, simulated presentations or reports for specific target audiences that simulate real-world experience can also be utilised.

FEEDBACK AND PRACTICE

Students should have multiple opportunities, individually and in teams, across the curriculum, and should obtain detailed feedback on their attempts, with mechanisms in place to chart progress across tasks.

This requires consistency of expectations within and across modules. Peer-evaluation and self-reflection opportunities can also be included to provide practice and feedback.

Effective and detailed feedback is essential to encourage development of skillful practices.

DEVELOP ASSESSMENT EXPERTISE

Although we may ask students to communicate regularly, we typically assess technical content (and our assessment rubrics focus on this).

We should work towards promoting and assessing clarity of argument and clear and concise expression in addition to technical content).

This requires rubrics that go beyond the basic 'presentation' marks.

However, engineering lecturers often struggle to articulate the difference 'good' communication practices and 'developing' practices.

As such, there is need for guidance and training in this regard.

IDENTIFY SUPPORT MECHANISMS

Communicationrich assessments are not always possible because of the marking load and challenges regarding large cohorts.

Strategies to overcome these constraints include: collaborating with writing centers or modules outside of engineering; working with communication specialists through team-teaching and collaborative design of assessment tasks and rubrics; and training postgraduate writing consultants (or tutors) across a department or faculty.