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The [Minor in Applied Data Science for Engineering \(MADS4Engineering\)](https://www.mads4e.dee.isep.ipp.pt/) is a 30-ECTS programme in English offered by ISEP to international 3rd-year (or higher) engineering, product design and business students. The programme comprises the following modules:

1. Data Science Lab (21.0 ECTS)
2. Critical Thinking & Ethics in Data Science (1.5 ECTS)
3. Data Preparation, Processing & Visualization (1.5 ECTS)
4. Intercultural & Technical-Scientific Communication (1.5 ECTS)
5. Math Essentials for Data Science (1.5 ECTS)
6. Programming for Data Science (1.5 ECTS)
7. Team Building & Project Management (1.5 ECTS)

MADS4Engineering is open to students who have completed at least two years of higher education. Although primarily designed for engineering students, it also welcomes students from other fields who can contribute to engineering data science projects.

The programme equips students with the skills needed to address real-world engineering data science challenges. It follows a project-based learning approach with a strong emphasis on critical thinking, ethics, and teamwork.

Students work in international, multidisciplinary teams of 3 to 6 members on real data science projects, often in collaboration with industry partners or research laboratories. Through these projects, they develop technical expertise, intercultural competence, communication and interpersonal skills, while learning to take responsibility for their own learning and project outcomes.

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