Materials engineering

Basic information

**Code:** FITech

**Extent:** 5–20 ECTS

**Language:** English

**Organising university:** Tampere University

**Methods and location:** Online

**Teacher in charge:** Petri Vuoristo ([petri.vuoristo@tuni.fi](mailto:petri.vuoristo@tuni.fi))

**Administrative contact:** Coordinator Hannele Kulmala ([hannele.kulmala@tuni.fi](mailto:hannele.kulmala@tuni.fi))

**Target group:** Schools of Technology. Persons operating in design, product development, manufacturing and use of engineering materials.

**Application process:**
- This guideline applies to students who want to attend FITech studies in universities other than their home university.
- Instructions for applying ([opens in a new tab](#))
- More info can be found on FITech’s website.

**Quotas and restrictions:** -

Content and structure of the minor

In the engineering industry, the term “materials engineering” is often understood as metal technology. However, the materials are a much larger group than metals alone and frequently the work of material engineer includes topics on plastics, ceramics and composite materials. Especially when designing new components or structures, and at the same time optimising the strength and weight of them. Managing these material groups cannot be done without specific expertise.

The minor in materials science provides the student basic knowledge in plastic (polymer), ceramic and composite materials. In addition, the wear and corrosion properties of different material groups are studied. After completing the minor, the student understands the usability and limitations of each material group and is able to apply the knowledge in their daily work.

More information: [https://fitech.io/studies/materials-engineering/](https://fitech.io/studies/materials-engineering/)

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