Course

Civil Engineering Materials

ZEIT2603 | 6 Units of Credit
Overview

This course is aimed to provide a comprehensive introduction on civil engineering materials. It will cover all basic topics about modern construction materials, their properties and their applications in civil engineering. Emphasis will be given to factors affecting material selections in terms of strength, serviceability, durability and sustainability in practical applications.

Course Learning Outcomes

Upon successful completion of the course, students will have acquired:

- Understanding the basic properties of materials and ability to relate such properties to civil engineering.
- Understanding the properties of naturally occurring materials with which civil engineers must deal.
- Understanding properties of artificial materials and their relationship and impact on civil engineering.
- Understanding relationships between materials properties and design needs.
- Recognising the importance of knowledge of material properties in influencing decision making in infrastructural design that carry environmental, economical and sociological consequences.

Course content:

History and development of materials; interactions between processes, design, and properties; basic material properties; manipulating material properties; natural materials in civil engineering; soils, rocks, timbers, bamboo, natural fibres, and metals; materials in the built environment: clay, timber, steel and concrete as building materials; Materials for roads and airports construction, materials to suit design and design to suit materials; durability of civil engineering materials; relevant properties of clay bricks, timber, steel and concrete; new materials for civil engineering; civil engineering materials and the environment.
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<th><strong>Faculty</strong></th>
<th>UNSW Canberra at ADFA</th>
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<tr>
<td><strong>School</strong></td>
<td>UC Engineering &amp; Information Technology</td>
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<tr>
<td><strong>Study Level</strong></td>
<td>Undergraduate</td>
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<td><strong>Offering Terms</strong></td>
<td>Semester 1</td>
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<td><strong>Campus</strong></td>
<td>Canberra</td>
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<td><strong>Delivery Mode</strong></td>
<td>Fully on-site</td>
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<td><strong>Indicative contact hours</strong></td>
<td>6</td>
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<td><strong>Timetable</strong></td>
<td>Visit timetable website for details</td>
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Conditions for Enrolment

Prerequisite: ZPEM1102
Course Outline

To access course outline, please visit:

ZEIT2603 Course Outline
Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)

Pre-2019 Handbook Editions