Frequency
Every 2 years

Remarque
Every two years/ Next time: Spring 2020 Minimum 5

Summary
The course focuses on the current investigations in the fields of fatigue and fracture of composite materials and composite structural components, like adhesively-bonded joints. Students would be able to develop design concepts for composite structures under realistic loading conditions.

Content
Introduction to composite materials and the specific design concepts of structures with this type of material. Description of the characteristics of composite materials and their singularities. Selected topics to be addressed are:

- Failure modes and failure criteria for composite materials,
- Fatigue of composite materials and structures,
- Multiaxial static/fatigue behaviour,
- Fracture of composite materials,
- Joining techniques,
- Issues raised by the students, related to their PhD projects

Keywords
Composite materials, fatigue, fracture, joining techniques.

Learning Prerequisites

Required courses
Basic knowledge about composite materials and theory of elasticity.

Resources
Websites

• http://www.cclab.ch