

IDENTIFICATION

Course code : E3BE5ST3
ECTS : 0

DURATION

Lectures : 0
Tutorial classes : 4
Labs : 0
Total : 4

Project :
Personnal work :

ASSESSMENT

Critical learning outcomes will be assessed based on the elements provided in deliverables, using a criterion-based rubric presented to students in advance, as well as an oral presentation.

TEACHING MATERIALS

All documents used during instruction. If necessary, additional reference materials may be consulted.

LANGUAGE

English

CONTACT

Sébastien HILAIRE
sebastien.hilaire@univ-reunion.fr

Modifié le : 3 août 2026

UE5.1-STRUC

SAE

SCOPE OF THE CHALLENGE

WORKING SITUATION

STRUC Competency - Level 1 Design and size the structure of building-type structures, particularly in extreme environments

COMPETENCES AND LEVEL ASSESSED

- Identify and analyze the essential elements of a structure • Select construction materials based on constraints (economic, environmental, mechanical, thermal)
- Calculate loads, stresses, and deflections • Justify the choices made and the results obtained

EXPECTED OUTPUTS

- Synthetic and detailed presentation of the project, with a focus on the structural elements to be studied • Comparative study of materials and selection of the 2 most suitable materials based on environmental and mechanical constraints
- Drafting of 2 calculation notes for the structural elements (stresses, deflections) • Cost analysis of the 2 solutions • 1 300-word text in English or Spanish justifying the selected solution • Oral presentation to your supervisor

Evaluation criteria will be defined in the criterion-based grid provided to engineering students in advance.

RESOURCES

— Lecturer in Isostatic Structures — Construction Materials — Construction Techniques — Spanish or English