University of Pretoria Yearbook 2020

Theory of structures 321 (STU 321)

Qualification	Undergraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	8.00
Programmes	BSc Architecture
Prerequisites	STU 311 GS
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Civil Engineering
Period of presentation	Semester 2

Module content

1. Timber structures
• Loads on typical timber structures, Limit-states design principles
• Bending, shear and deflection: Design of flexural members without and with axial loads
• Tension members: Tension members in roof trusses
• Compression members: Design of compression members in trusses and as support members for trusses
• Bracing systems
2. Steel Structures
• Loads on typical steel structures, Limit-states design principles
• Bending, shear and deflection: Design of flexural members without and with axial loads
• Tension members: Tension members in roof trusses
• Compression members: Design of compression members in trusses and as support members for trusses
• Bracing systems