

# University of Pretoria Yearbook 2016

## Theory of structures 321 (STU 321)

|                               |                                                                                      |
|-------------------------------|--------------------------------------------------------------------------------------|
| <b>Qualification</b>          | Undergraduate                                                                        |
| <b>Faculty</b>                | <a href="#">Faculty of Engineering, Built Environment and Information Technology</a> |
| <b>Module credits</b>         | 8.00                                                                                 |
| <b>Programmes</b>             | <a href="#">BSc Architecture</a>                                                     |
| <b>Service modules</b>        | Faculty of Engineering, Built Environment and Information Technology                 |
| <b>Prerequisites</b>          | STU 311 GS                                                                           |
| <b>Contact time</b>           | 3 lectures per week                                                                  |
| <b>Language of tuition</b>    | Both Afr and Eng                                                                     |
| <b>Academic organisation</b>  | Civil Eng                                                                            |
| <b>Period of presentation</b> | 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

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