



# University of Pretoria Yearbook 2022

## Statics 122 (SWK 122)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	Faculty of Engineering, Built Environment and Information Technology
<b>Module credits</b>	16.00
<b>NQF Level</b>	05
<b>Programmes</b>	BEng (Mechanical Engineering) BEng (Chemical Engineering) BEng (Chemical Engineering) ENGAGE BEng (Civil Engineering) BEng (Civil Engineering) ENGAGE BEng (Computer Engineering) BEng (Computer Engineering) ENGAGE BEng (Electrical Engineering) BEng (Electrical Engineering) ENGAGE BEng (Electronic Engineering) BEng (Electronic Engineering) ENGAGE BEng (Industrial Engineering) BEng (Industrial Engineering) ENGAGE BEng (Mechanical Engineering) ENGAGE BEng (Metallurgical Engineering) BEng (Metallurgical Engineering) ENGAGE BEng (Mining Engineering) BEng (Mining Engineering) ENGAGE BSc (Engineering and Environmental Geology) BSc (Geology) BSc extended programme - Physical Sciences
<b>Service modules</b>	Faculty of Natural and Agricultural Sciences
<b>Prerequisites</b>	WTW 158
<b>Contact time</b>	2 tutorials per week, 4 lectures per week



---

**Language of tuition**      Module is presented in English

**Department**              Civil Engineering

**Period of presentation**   Semester 2

**Module content**

Equivalent force systems, resultants. Newton's laws, units. Forces acting on particles. Rigid bodies: principle of transmissibility, resultant of parallel forces. Vector moments and scalar moments. Relationship between scalar- and vector moments. Couples. Equivalent force systems on rigid bodies. Resultants of forces on rigid bodies. Equilibrium in two and three dimensions. Hooke's law. Trusses and frameworks. Centroids and second moments of area. Beams: distributed forces, shear force, bending moment, method of sections, relationship between load, shear force and bending moment.

---

The regulations and rules for the degrees published here are subject to change and may be amended after the publication of this information.

The [General Academic Regulations \(G Regulations\)](#) and [General Student Rules](#) apply to all faculties and registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations.