



# University of Pretoria Yearbook 2022

## Program design: Introduction 110 (COS 110)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	<a href="#">Faculty of Engineering, Built Environment and Information Technology</a>
<b>Module credits</b>	16.00
<b>NQF Level</b>	05
<b>Programmes</b>	<a href="#">BEng (Computer Engineering)</a> <a href="#">BEng (Computer Engineering) ENGAGE</a> <a href="#">BIS (Multimedia)</a> <a href="#">BSc (Computer Science)</a> <a href="#">BSc (Information and Knowledge Systems)</a> <a href="#">BSc (Applied Mathematics)</a> <a href="#">BSc (Mathematics)</a> <a href="#">BSc (Physics)</a> <a href="#">BSc extended programme - Mathematical Sciences</a>
<b>Service modules</b>	<a href="#">Faculty of Engineering, Built Environment and Information Technology</a> <a href="#">Faculty of Economic and Management Sciences</a> <a href="#">Faculty of Natural and Agricultural Sciences</a>
<b>Prerequisites</b>	COS 132 , COS 151 and Maths level 5
<b>Contact time</b>	1 practical per week, 1 tutorial per week, 3 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Computer Science
<b>Period of presentation</b>	Semester 2

### Module content

The focus is on object-oriented (OO) programming. Concepts including inheritance and multiple inheritance, polymorphism, operator overloading, memory management (static and dynamic binding), interfaces, encapsulation, reuse, etc. will be covered in the module. The module teaches sound program design with the emphasis on modular code, leading to well structured, robust and documented programs. A modern OO programming language is used as the vehicle to develop these skills. The module will introduce the student to basic data structures, lists, stacks and queues.



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.