

# University of Pretoria Yearbook 2022

## Software engineering 301 (COS 301)

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| <b>Qualification</b>          | Undergraduate   |
| <b>Faculty</b>                | Faculty of Engineering, Built Environment and Information Technology  |
| <b>Module credits</b>         | 27.00   |
| <b>NQF Level</b>              | 07  |
| <b>Programmes</b>             | BIS (Multimedia)<br>BSc (Computer Science)<br>BSc (Information and Knowledge Systems)<br>BSc (Applied Mathematics)<br>BSc (Mathematics) |
| <b>Prerequisites</b>          | COS 212 and COS 214   |
| <b>Contact time</b>           | 1 practical per week, 2 lectures per week   |
| <b>Language of tuition</b>    | Module is presented in English  |
| <b>Department</b>             | Computer Science  |
| <b>Period of presentation</b> | Year  |

### Module content

The module exposes students to problems associated with software development on an industrial scale. Overall goals of the module are: to become familiar with the latest trends in software engineering; to understand the software engineering process and to appreciate its complexity; to be exposed to a variety of methodologies for tackling different stages of the software lifecycle; to understand and apply the concepts of systems administration and maintenance; to complete the development of a fairly large object orientation-based software product. The focus of the module is on a project that lasts the whole year. The project is completed in groups of approximately four (4) students and teaches students to take responsibility for a variety of roles within a group, and to understand the different requirements for these; to experience the advantages and problems of working in a group; professionalism with regards to particularly colleagues and clients.

After the successful completion of this module, the student will be able to: understand the psychology of a client; work in groups; and have an appreciation for planning, designing, implementing and maintaining large projects. These qualities should place the students in a position in which they are able to handle software development in the corporate environment.

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.