

## University of Pretoria Yearbook 2024

# Information hiding 788 (COS 788)

| Qualification          | Postgraduate   |
|------------------------|--|
| Faculty                | Faculty of Engineering, Built Environment and Information Technology |
| Module credits         | 15.00  |
| NQF Level              | 08   |
| Programmes             | BScHons Computer Science   |
| Prerequisites          | No prerequisites.  |
| Contact time           | 2 lectures per week  |
| Language of tuition    | Module is presented in English                                       |
| Department             | Computer Science   |
| Period of presentation | Semester 1 or Semester 2   |

### Module content

Information hiding is a category of computer security that focuses on embedding information in digital objects. Information, such as digital signatures, are sometimes embedded in objects to indicate ownership or origin – a technology that is called watermarking. Alternatively information is sometimes hidden in digital objects to facilitate invisible or inaudible communication – called steganography. Steganography focuses on the confidentiality of information, while watermarking is used to protect intellectual property. This module covers the techniques and algorithms used in both technologies to embed information in objects with minimal perceptual and audible changes to the objects. The module also provides a brief overview of different multimedia formats, such as image, audio and video, in order to understand their potential and limitations in the field of information hiding. Potential attacks on information hiding systems are also investigated.

#### **General Academic Regulations and Student Rules**

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. The G Regulations are updated annually and may be amended after the publication of this information.

#### Regulations, degree requirements and information

The faculty regulations, information on and requirements for the degrees published here are subject to change



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#### University of Pretoria Programme Qualification Mix (PQM) verification project

The higher education sector has undergone an extensive alignment to the Higher Education Qualification Sub-Framework (HEQSF) across all institutions in South Africa. In order to comply with the HEQSF, all institutions are legally required to participate in a national initiative led by regulatory bodies such as the Department of Higher Education and Training (DHET), the Council on Higher Education (CHE), and the South African Qualifications Authority (SAQA). The University of Pretoria is presently engaged in an ongoing effort to align its qualifications and programmes with the HEQSF criteria. Current and prospective students should take note that changes to UP qualification and programme names, may occur as a result of the HEQSF initiative. Students are advised to contact their faculties if they have any questions.