



University of Pretoria Yearbook 2020

BIS Information Science (12131012)

Minimum duration of study	3 years
Total credits	415
NQF level	07
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Programme information

The increasing amount of information available and developing information needs have necessitated the training of information intermediaries to effectively facilitate the bringing together of users and the information they require.

This package focuses on the use of information technology and the processing of information products and is designed to train students in the management, retrieval and organisation of information, as well as to teach them how to add value to, package and distribute information. Students will also have the opportunity to develop knowledge and skills in the management of one of the most important resources of enterprises – information and knowledge. Two or three specialisation options are available, depending on the electives chosen.

Admission requirements

- The following persons will be considered for admission: candidates who are in possession of a certificate that is deemed by the University to be equivalent to the required Grade 12 certificate with university endorsement; candidates who are graduates from another tertiary institution or have been granted the status of a graduate of such an institution; and candidates who are graduates of another faculty at the University of Pretoria.
- Life Orientation is excluded when calculating the APS.
- Grade 11 results are used in the conditional admission of prospective students.
- A valid qualification with admission to degree studies is required.
- Minimum subject and achievement requirements, as set out below, are required.
- Tuition will be presented in English only.
- Should a candidate obtain an APS of 25 to 27, consideration for admission will be based on the results of the NBT, provided the numbers of students in designated groups have not been reached. If informatics is selected at first-year level, an achievement level of 5 is required in Mathematics.

Minimum requirements

Achievement level

English Home Language or English First Additional Language

NSC/IEB AS Level

4 D

APS

28

(25 - 27 admission based on the NBT)



* Cambridge A level candidates who obtained at least a D in the required subjects, will be considered for admission. International Baccalaureate (IB) HL candidates who obtained at least a 4 in the required subjects, will be considered for admission.

Other programme-specific information

Because credits are not calculated in the same way in all faculties, students should ensure note that the total number of credits required for this package is at least 415-458 depending on the choice of elective modules (as required for Group A, B or C).



Curriculum: Year 1

Minimum credits: 110

Elective modules: Select one group in consultation with the package organiser, at least 30 credits from any modules at year level one OR Select 50 credits from the INF elective group. Students who obtained at least 4(50% - 59%) for Mathematics in Grade 12 will be admitted to Informatics 112 and students who obtained at least 5(60 - 69%) for Mathematics in Grade 12 will be admitted to Informatics 154, 164 and 171.

Fundamental modules

Academic information management 101 (AIM 101)

Module credits 6.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Education
Faculty of Economic and Management Sciences
Faculty of Humanities
Faculty of Law
Faculty of Health Sciences
Faculty of Natural and Agricultural Sciences
Faculty of Theology and Religion
Faculty of Veterinary Science

Prerequisites No prerequisites.

Contact time 2 lectures per week

Language of tuition Module is presented in English

Department Information Science

Period of presentation Semester 1

Module content

Find, evaluate, process, manage and present information resources for academic purposes using appropriate technology. Apply effective search strategies in different technological environments. Demonstrate the ethical and fair use of information resources. Integrate 21st-century communications into the management of academic information.

Academic literacy for Information Technology 121 (ALL 121)

Module credits 6.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Economic and Management Sciences

Prerequisites No prerequisites.

Contact time 1 web-based period per week, 2 lectures per week

Language of tuition Module is presented in English

Department Unit for Academic Literacy

Period of presentation Semester 2



Module content

By the end of this module students should be able to cope more confidently and competently with the reading, writing and critical thinking demands that are characteristic of the field of Information Technology.

Academic orientation 112 (UPO 112)

Module credits	0.00
Language of tuition	Module is presented in English
Department	EBIT Deans Office
Period of presentation	Year

Core modules

Information science 110 (INL 110)

Module credits	12.00
Service modules	Faculty of Humanities
Prerequisites	No prerequisites.
Contact time	1 practical per week, 3 lectures per week
Language of tuition	Module is presented in English
Department	Information Science
Period of presentation	Semester 1

Module content

This module is an introduction to the study field of information science and its various professions. Key concepts that will be discussed include the following: the human as information processor and user; the life-cycle of information in terms of processes, products and role-players; as well as the communication of information. The social-ethical impact of globalisation is included as a key concern, with reference to Africa.

Information science 120 (INL 120)

Module credits	12.00
Service modules	Faculty of Humanities
Prerequisites	No prerequisites.
Contact time	1 practical per week, 3 lectures per week
Language of tuition	Module is presented in English
Department	Information Science
Period of presentation	Semester 2



Module content

Organisation and representation of information. This module provides the student with an introduction to the basic principles and processes underlying the organisation and representation of information. The process of organising information in documents and on the web, in multimedia formats, by means of document image processing and in databases are dealt with. Themes on the representation of information through the creation of metadata include various general and domain specific metadata schemas such as Dublin Core as a metadata standard for the Web, as well as various other metadata schemas.

Practical classes include basic HTML and the design of Web pages incorporating and applying what was covered in theory.

Information science 130 (INL 130)

Module credits 12.00

Service modules Faculty of Humanities

Prerequisites No prerequisites.

Contact time 1 practical per week, 3 lectures per week

Language of tuition Module is presented in English

Department Information Science

Period of presentation Semester 1

Module content

Personal information management. This module focuses on personal information management within an organisational context. It deals with managing information and knowledge that is peculiar to an individual and which enables him/her to perform his/her job.

Topics include: creating an environment in which the individual can manage his/her information and knowledge; the skills needed to be able to manage personal information and knowledge; information overloading which gives rise to personal information and knowledge management, as well as the manner in which individuals can switch from personal information management to personal knowledge management; personal information and knowledge management as a career.

Information science 140 (INL 140)

Module credits 12.00

Service modules Faculty of Humanities

Prerequisites No prerequisites.

Contact time 1 practical per week, 3 lectures per week

Language of tuition Module is presented in English

Department Information Science

Period of presentation Semester 2



Module content

Information and communication technology. This module offers a brief overview of hardware and software, telecommunications technology, LANs, WANs and intranets, the information highway, the internet and the World Wide Web, computer ethics, ICTs, e-commerce, mobile computing technology and the influence that new trends and developments have on the distribution of information.

Business management 114 (OBS 114)

Module credits 10.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Education
Faculty of Humanities
Faculty of Natural and Agricultural Sciences

Prerequisites May not be included in the same curriculum as OBS 155

Contact time 3 lectures per week

Language of tuition Module is presented in English

Department Business Management

Period of presentation Semester 1

Module content

The entrepreneurial mind-set; managers and managing; values, attitudes, emotions, and culture: the manager as a person; ethics and social responsibility; decision making; leadership and responsible leadership; effective groups and teams; managing organizational structure and culture inclusive of the different functions of a generic organisation and how they interact (marketing; finance; operations; human resources and general management); contextualising Sustainable Development Goals (SDG) in each of the topics.

Business management 124 (OBS 124)

Module credits 10.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Education
Faculty of Humanities
Faculty of Natural and Agricultural Sciences

Prerequisites Admission to the examination in OBS 114

Contact time 3 lectures per week

Language of tuition Module is presented in English

Department Business Management

Period of presentation Semester 2

Module content

Value chain management: functional strategies for competitive advantage; human resource management; managing diverse employees in a multicultural environment; motivation and performance; using advanced information technology to increase performance; production and operations management; financial management; corporate entrepreneurship.



Elective modules

Afrikaans 110 (AFR 110)

Module credits 12.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Education
Faculty of Economic and Management Sciences
Faculty of Law
Faculty of Health Sciences

Prerequisites No prerequisites.

Contact time 2 discussion classes per week, 2 lectures per week

Language of tuition Module is presented in Afrikaans

Department Afrikaans

Period of presentation Semester 1

Module content

Taalkundekomponent: Inleiding tot die Afrikaanse taalkunde met klem op lees-en skryfvaardigheid.

Letterkundekomponent: Inleiding tot die Afrikaanse en Nederlandse letterkunde aan die hand van kortverhale en gedigte.

Afrikaans 120 (AFR 120)

Module credits 12.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Education
Faculty of Economic and Management Sciences
Faculty of Law
Faculty of Health Sciences

Prerequisites No prerequisites.

Contact time 2 discussion classes per week, 2 lectures per week

Language of tuition Module is presented in Afrikaans

Department Afrikaans

Period of presentation Semester 2

Module content

Taalkundekomponent: Inleiding tot die Afrikaanse sintaksis, fonetiek en taalgeskiedenis.

Letterkundekomponent: Inleiding tot die Romankuns Inleiding tot die Drama

Archaeology 110 (AGL 110)

Module credits 12.00

Prerequisites No prerequisites.

Contact time 1 tutorial per week, 2 lectures per week



Language of tuition Module is presented in English

Department Anthropology and Archaeology

Period of presentation Semester 1

Module content

*Optional Field school usually in April

Introduction to Archaeology

An introduction as to how archaeologists study the past via the artefacts left behind by our ancestors. Basic introduction to archaeological theory and how it has contributed to interpretation of the past is discussed. Topics range from the origins of the human family in Africa over three million years ago to the study of more recent times.

Archaeology 120 (AGL 120)

Module credits 12.00

Prerequisites No prerequisites.

Contact time 1 tutorial per week, 2 lectures per week

Language of tuition Module is presented in English

Department Anthropology and Archaeology

Period of presentation Semester 2

Module content

African and world archaeology

Africa is the home of humanity in both a biological and cultural sense and we have the artefacts and sites to prove it. Topics range from the famous 3 million year-old Australopithecine 'Lucy' ancestor found in Ethiopia to the 'Out of Africa' dispersal of modern humans, and the emergence of human symbolism, rock art and the emergence of complex societies at society at Lake Chad (Daima) and southern Africa (Mapungubwe and Great Zimbabwe). The main aim is to situate events in Africa in global perspective.

Introduction to tourism 110 (EFK 110)

Module credits 12.00

Service modules Faculty of Education

Prerequisites No prerequisites.

Contact time 2 lectures per week

Language of tuition Module is presented in English

Department Historical and Heritage Studies

Period of presentation Semester 1

Module content

Overview of the origin and nature of tourism development of South African cultural, natural and adventure tourist destinations.



Heritage tourism management 120 (EFK 120)

Module credits 12.00

Service modules Faculty of Education

Prerequisites No prerequisites.

Contact time 1 tutorial per week, 2 lectures per week

Language of tuition Module is presented in English

Department Historical and Heritage Studies

Period of presentation Semester 2

Module content

An introductory exploration of the relationship between heritage conservation and tourism.

English 110 (ENG 110)

Module credits 12.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Education
Faculty of Economic and Management Sciences
Faculty of Law
Faculty of Health Sciences

Prerequisites No prerequisites.

Contact time 1 discussion class per week, 2 lectures per week, 2 web-based periods per week

Language of tuition Module is presented in English

Department English

Period of presentation Semester 1

Module content

*Alternative evening classes - 2 discussion classes per week
Introduction to Literature in English (1) This module introduces the study of literature by examining a number of texts representing different genres (poetry, prose, drama). The texts studied here will be mainly from the pre-twentieth century era and may include texts written in English from both Africa and other parts of the world. The aim of this module is to equip students with the critical and analytical skills required for a perceptive reading of poetry, novels and plays.

English 120 (ENG 120)

Module credits 12.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Education
Faculty of Economic and Management Sciences
Faculty of Law
Faculty of Health Sciences

Prerequisites No prerequisites.

Contact time 1 discussion class per week, 2 lectures per week



Language of tuition Module is presented in English

Department English

Period of presentation Semester 2

Module content

*Alternative evening classes: 2 discussion classes per week

Introduction to Literature in English (2)

This module introduces the study of post-nineteenth century literature by examining a number of texts representing different genres (poetry, drama, prose). Texts will be from both Africa and other parts of the world. By the end of this module students should have the background and analytical skills to perceptively read modern and contemporary poetry, novels and plays.

Informatics 112 (INF 112)

Module credits 10.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Natural and Agricultural Sciences

Prerequisites A candidate must have passed Mathematics with at least 4 (50-59%) in the Grade 12 examination; or STK 113 60%, STK 123 60% or STK 110

Contact time 2 lectures per week

Language of tuition Module is presented in English

Department Informatics

Period of presentation Semester 2

Module content

Introduction to information systems, information systems in organisations, hardware: input, processing, output, software: systems and application software, organisation of data and information, telecommunications and networks, the Internet and Intranet. Transaction processing systems, management information systems, decision support systems, information systems in business and society, systems analysis, systems design, implementation, maintenance and revision.

Informatics 154 (INF 154)

Module credits 10.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Natural and Agricultural Sciences

Prerequisites A candidate must have passed Mathematics with at least 4 (50-59%) in the Grade 12 examination

Contact time 1 lecture per week, 2 practicals per week

Language of tuition Module is presented in English

Department Informatics

Period of presentation Semester 1



Module content

Introduction to programming.

Informatics 164 (INF 164)

Module credits 10.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Natural and Agricultural Sciences

Prerequisites INF 154; A candidate must have passed Mathematics with at least 4 (50-59%) in the Grade 12 examination; AIM 101 or AIM 102 or AIM 111 and AIM 121

Contact time 1 lecture per week, 2 practicals per week

Language of tuition Module is presented in English

Department Informatics

Period of presentation Semester 2

Module content

Programming.

Informatics 171 (INF 171)

Module credits 20.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Natural and Agricultural Sciences

Prerequisites A candidate must have passed Mathematics with at least 4 (50-59%) in the Grade 12 examination

Contact time 2 lectures per week

Language of tuition Module is presented in English

Department Informatics

Period of presentation Year

Module content

General systems theory, creative problem solving, soft systems methodology. The systems analyst, systems development building blocks, systems development, systems analysis methods, process modelling.

Criminology 110 (KRM 110)

Module credits 12.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Law
Faculty of Theology and Religion

Prerequisites No prerequisites.

Contact time 2 lectures per week

Language of tuition Module is presented in English



Department Social Work and Criminology

Period of presentation Semester 1

Module content

Part 1: Fundamental criminology

A general introduction to criminology is provided. An overview of factors that contribute to crime, forensic criminology and forensic criminalistics are investigated.

Part 2: Violent crime

Various types of violent crimes receive attention in this section.

Criminology 120 (KRM 120)

Module credits 12.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Law
Faculty of Theology and Religion

Prerequisites KRM 110

Contact time 2 lectures per week

Language of tuition Module is presented in English

Department Social Work and Criminology

Period of presentation Semester 2

Module content

Part 1: Penology

Attention is given to the roleplayers in the criminal justice system, namely the police, judiciary and corrections.

Part 2: Crime prevention and control

The nature and extent of crime, theories to explain criminal behaviour and crime prevention and control are investigated.

The two sections will not necessarily be presented in chronological order.

Public administration 112 (PAD 112)

Module credits 10.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Humanities

Prerequisites No prerequisites.

Contact time 3 lectures per week

Language of tuition Module is presented in English

Department School of Public Management and Administration

Period of presentation Semester 1



Module content

This module in public administration is designed specifically to assist students in understanding the role of public administration in a modern state, the unique characteristics of public administration, the schools and approaches in public administration and introducing the various generic administrative functions. The discipline of public administration has developed rapidly and by implication, has changed and shifted its paradigm over the years. The purpose of this module is to introduce public administration to the student as a field of study that makes a significant contribution to the effective administration and management of government institutions.

Public administration 122 (PAD 122)

Module credits 10.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Humanities

Prerequisites PAD 112 GS

Contact time 3 lectures per week

Language of tuition Module is presented in English

Department School of Public Management and Administration

Period of presentation Semester 2

Module content

This module in public administration will introduce the constitutional framework pertaining to public administration. The South African system of government, the functions, role and powers of the executive, legislative and judicial branches of government as well as the functioning of the three spheres of government will be discussed. The module will enable the student to understand how and where public administration is practiced.

Psychology 110 (SLK 110)

Module credits 12.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Education
Faculty of Health Sciences
Faculty of Natural and Agricultural Sciences

Prerequisites No prerequisites.

Contact time 2 discussion classes per week, 2 lectures per week

Language of tuition Module is presented in English

Department Psychology

Period of presentation Semester 1

Module content

This module is a general orientation to Psychology. An introduction is given to various theoretical approaches in Psychology, and the development of Psychology as a science is discussed. Selected themes from everyday life are explored and integrated with psychological principles. This module focuses on major personality theories. An introduction is given to various paradigmatic approaches in Psychology.



Psychology 120 (SLK 120)

Module credits 12.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Education
Faculty of Health Sciences
Faculty of Natural and Agricultural Sciences

Prerequisites No prerequisites.

Contact time 2 discussion classes per week, 2 lectures per week

Language of tuition Module is presented in English

Department Psychology

Period of presentation Semester 2

Module content

This module introduces the student to a basic knowledge and understanding of the biological basis of human behaviour. The module addresses the key concepts and terminology related to the biological subsystem, the rules and principles guiding biological psychology, and identification of the interrelatedness of different biological systems and subsystems. In this module various cognitive processes are studied, including perception, memory, thinking, intelligence and creativity. Illustrations are given of various thinking processes, such as problem solving, critical, analytic and integrative thinking.

Sociology 110 (SOC 110)

Module credits 12.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Law

Prerequisites No prerequisites.

Contact time 1 tutorial per week, 3 lectures per week

Language of tuition Module is presented in English

Department Sociology

Period of presentation Semester 1

Module content

Invitation to Sociology

How do we understand ourselves as individuals in relation to society? How are our individual life courses and large-scale processes of social and historical change related to each other? How have our societies come to be what they are today? And how can we think of our private troubles as public issues? These questions are at the very heart of sociology as a distinctive way of thinking about and understanding the social worlds that we inhabit. This module invites students to become familiar with sociological ways of thinking about current issues and personal experiences (particularly in the southern African context), and to develop the analytical skills that are necessary in order to ask and answer critical questions about the communities, society, and world that they live in. The module will include a specific emphasis on academic reading skills.



Sociology 120 (SOC 120)

Module credits	12.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Law
Prerequisites	No prerequisites.
Contact time	1 tutorial per week, 3 lectures per week
Language of tuition	Module is presented in English
Department	Sociology
Period of presentation	Semester 2

Module content

Thinking sociologically

Drawing from the idea of Sociology as a discipline that focuses on critical thinking, the module will introduce students to ways of questioning the obvious and the taken-for-granted. In particular, power and inequality will be problematised, with a focus on how power operates to structure racial, class and gender inequalities across institutions, ideologies and identities. The module will introduce students to the operations of power as manifested in the production of institutions, the proliferation of identities and heightened contestations among ideologies. The module will include a specific emphasis on writing skills.



Curriculum: Year 2

Minimum credits: 160

Elective modules: Select one group in consultation with the package organiser, at least 63 credits from INF elective group OR Select 60 credits from INL elective group.

Fundamental modules

Community-based project 202 (JCP 202)

Module credits	8.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	No prerequisites.
Contact time	1 other contact session per week
Language of tuition	Module is presented in English
Department	Informatics
Period of presentation	Year

Module content

This project-orientated module is a form of applied learning which is directed at specific community needs and is integrated into all undergraduate academic programmes offered by the Faculty of Engineering, Built Environment and Information Technology.

The main objectives with the module are as follows:

- (1) The execution of a community-related project aimed at achieving a beneficial impact on a chosen section of society, preferably but not exclusively, by engagement with a section of society which is different from the student's own background.
- (2) The development of an awareness of personal, social and cultural values, an attitude to be of service, and an understanding of social issues, for the purpose of being a responsible professional.
- (3) The development of important multidisciplinary and life skills, such as communication, interpersonal and leadership skills.

Assessment in this module will include all or most of the following components: evaluation and approval of the project proposal, assessment of oral and/or written progress reports, peer assessment in the event of team projects, written report-back by those at which the project was aimed at, and final assessment on grounds of the submission of a portfolio and a written report.

Core modules

Information science 210 (INL 210)

Module credits	20.00
Service modules	Faculty of Humanities
Prerequisites	AIM 101 or AIM 102 or AIM 111 and 121
Contact time	3 lectures per week, 3 practicals per week
Language of tuition	Module is presented in English



Department Information Science

Period of presentation Semester 1

Module content

Information seeking and retrieval. This module explores the theory and practice of effective information seeking and retrieval. It builds on supporting research paradigms such as the systems, user-centred, cognitive and socio-cognitive paradigms. The focus is on the complexities of effective information seeking and retrieval within the context of information behaviour on a personal level, as well as in the context of professional, academic or everyday information needs.

Information science 220 (INL 220)

Module credits 20.00

Service modules Faculty of Humanities

Prerequisites INL 210 or LP

Contact time 3 lectures per week, 3 practicals per week

Language of tuition Module is presented in English

Department Information Science

Period of presentation Semester 2

Module content

Representation and organisation. Information needs to be represented and organised in a system for it to be effectively retrievable. This module deals with the representation and organisation of information on the level of individual entities (e.g. indexing), from the perspective of the users (user profiling), as well as within a document collection (taxonomies and ontologies).

Information science 240 (INL 240)

Module credits 20.00

Service modules Faculty of Humanities

Prerequisites No prerequisites.

Contact time 3 lectures per week, 3 practicals per week

Language of tuition Module is presented in English

Department Information Science

Period of presentation Semester 1

Module content

Social and ethical impact. This module examines moral and legal regulation practices related to information in print and digital environments. Different ethical theories are identified and applied to privacy, access to information, information poverty and censorship. The interpretation and enforcement of rules and regulations are discussed.



Business management 210 (OBS 210)

Module credits 16.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Education
Faculty of Natural and Agricultural Sciences

Prerequisites OBS 114 or 124 with admission to the examination in the other

Language of tuition Module is presented in English

Department Business Management

Period of presentation Semester 1

Module content

Logistics management

The role of logistics in an enterprise; definition and scope of customer service; electronic and other logistics information systems; inventory management; materials management with special reference to Japanese systems; management of the supply chain. Methods of transport and transport costs; types and costs of warehousing; electronic aids in materials handling; cost and price determination of purchases; organising for logistics management; methods for improving logistics performance.

Business management 220 (OBS 220)

Module credits 16.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Education
Faculty of Natural and Agricultural Sciences

Prerequisites OBS 114 or 124 with admission to the examination in the other. Students from other Faculties are required to have 50% for Mathematics in Grade 12.

Contact time 3 lectures per week

Language of tuition Module is presented in English

Department Business Management

Period of presentation Semester 2

Module content

Project management and negotiations:

Introduction Project management concepts; needs identification; the project, the project manager and the project team; types of project organisations; project communication and documentation. Planning and control: planning, scheduling and schedule control of projects; resource considerations and allocations; cost planning and performance evaluation.

Negotiation and collective bargaining: The nature of negotiation; preparation for negotiation; negotiating for purposes of climate creation; persuasive communication; handling conflict and aggression; specialised negotiation and collective bargaining in the South African context.

Elective modules



Informatics 214 (INF 214)

Module credits 14.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Natural and Agricultural Sciences

Prerequisites AIM 101 or AIM 111 and AIM 121

Contact time 2 lectures per week, 2 practicals per week

Language of tuition Module is presented in English

Department Informatics

Period of presentation Semester 1

Module content

Database design: the relational model, structured query language (SQL), entity relationship modelling, normalisation, database development life cycle; practical introduction to database design. Databases: advanced entity relationship modelling and normalisation, object-oriented databases, database development life cycle, advanced practical database design.

Informatics 225 (INF 225)

Module credits 14.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Natural and Agricultural Sciences

Prerequisites INF 112; AIM 101 or AIM 102 or AIM 111 and AIM 121

Contact time 1 lecture per week, 3 practicals per week

Language of tuition Module is presented in English

Department Informatics

Period of presentation Semester 2

Module content

An overview of systems infrastructure and integration.

Informatics 261 (INF 261)

Module credits 7.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Education
Faculty of Natural and Agricultural Sciences

Prerequisites INF 214

Contact time 1 lecture per week, 1 practical per week

Language of tuition Module is presented in English

Department Informatics

Period of presentation Semester 2



Module content

Database management: transaction management, concurrent processes, recovery, database administration: new developments: distributed databases, client-server databases: practical implementation of databases.

Informatics 271 (INF 271)

Module credits 14.00

Service modules Faculty of Engineering, Built Environment and Information Technology

Prerequisites AIM 101 or AIM 102 or AIM 111 and AIM 121, INF 164, INF 171

Contact time 1 discussion class per week, 1 lecture per week, 1 practical per week

Language of tuition Module is presented in English

Department Informatics

Period of presentation Year

Module content

Systems analysis. Systems design: construction; application architecture; input design; output design; interface design; internal controls; program design; object design; project management; system implementation; use of computer-aided development tools.

Informatics 272 (INF 272)

Module credits 14.00

Service modules Faculty of Engineering, Built Environment and Information Technology
Faculty of Natural and Agricultural Sciences

Prerequisites AIM 101 or AIM 102 or AIM 111 and AIM 121, INF 164 and INF 171, Regulation IT.3(g)

Contact time 1 lecture per week, 2 practicals per week

Language of tuition Module is presented in English

Department Informatics

Period of presentation Year

Module content

Advanced programming.

Information science 230 (INL 230)

Module credits 20.00

Service modules Faculty of Humanities

Prerequisites No prerequisites.

Contact time 3 lectures per week, 3 practicals per week

Language of tuition Module is presented in English

Department Information Science



Period of presentation Semester 1

Module content

User studies and dissemination. This module focuses on the individual as seeker, user, reader and communicator of information. Various user groups are identified and their information use and communication patterns and requirements are analysed and investigated. This module covers methods of service provision to facilitate and enhance the use and dissemination of information in accordance with the user's needs.

Information science 260 (INL 260)

Module credits 20.00

Service modules Faculty of Humanities

Prerequisites No prerequisites.

Contact time 3 lectures per week, 3 practicals per week

Language of tuition Module is presented in English

Department Information Science

Period of presentation Semester 2

Module content

Economics and politics of information. This module examines the economics and politics of information, with a special emphasis on South Africa's information sector. It aims to promote an understanding of the market and non-market qualities of information, and their consequences for the production, distribution and marketing of information goods and services. The ways in which information access and expression are regulated and the use of ICTs in crime and corruption is also addressed.

Information science 270 (INL 270)

Module credits 20.00

Service modules Faculty of Humanities

Prerequisites No prerequisites.

Contact time 3 lectures per week, 3 practicals per week

Language of tuition Module is presented in English

Department Information Science

Period of presentation Semester 2

Module content

Indigenous knowledge and communication. This module focuses on the role and function of Indigenous Knowledge (IK) in the information and knowledge society. Various categories and contexts of IK are explored within international and local perspectives.

Issues pertaining to access and communication of IK, inter alia through Information and Communication Technology (ICT), are addressed in order to ensure sustainable development.



Curriculum: Final year

Minimum credits: 145

Elective modules: Select one group in consultation with the package organiser,

Group A (70 credits) Select two INF modules and at least 40 credits OBS modules at year level 3.

Group B (90 credits) Select three INL modules

Group C (90 credits) Select two INF modules and at least 60 credits from Group B.

Core modules

Information science: Information organisation 310 (INL 310)

Module credits 30.00

Service modules Faculty of Humanities

Prerequisites No prerequisites.

Contact time 3 lectures per week, 3 practicals per week

Language of tuition Module is presented in English

Department Information Science

Period of presentation Semester 1

Module content

Information Organisation. The module is concerned with the organisation of information in the digital environment focusing on the structure and use of document management and workflow systems, as well as distribution channels and virtual environments. The characteristics and application of the internet, intranets, as well as portals and applications use, are considered.

Information science: Information and knowledge management 320 (INL 320)

Module credits 30.00

Service modules Faculty of Humanities

Prerequisites No prerequisites.

Contact time 3 lectures per week, 3 practicals per week

Language of tuition Module is presented in English

Department Information Science

Period of presentation Semester 2



Module content

Information and Knowledge Management. This module focuses on information and knowledge management at an operational level and introduces information and knowledge management at a corporate strategic level. It deals with the management of information and knowledge, which enables the organisation to be competitive. In this module the focus is on four aspects, namely: the 21st century organisation, the external and internal stakeholders that have an interest in information products, as well as the infrastructure that should be in place in organisations to manage information products. The module concludes with a few topics relating to information management at a corporate strategic level.

Information science 370 (INL 370)

Module credits 15.00

Prerequisites INL 210, 220 and INL 310 or registered for INL 310

Contact time 1 lecture per week, 2 practicals per week

Language of tuition Separate classes for Afrikaans and English

Department Information Science

Period of presentation Year

Module content

Experiential learning project. This module takes the form of a project and experiential training in co-operation with industry.

Elective modules

Informatics 315 (INF 315)

Module credits 15.00

Service modules Faculty of Engineering, Built Environment and Information Technology

Prerequisites INF 261, INF 225, INF 271 and INF 272

Contact time 2 lectures per week

Language of tuition Module is presented in English

Department Informatics

Period of presentation Semester 1

Module content

A review of current trends which are relevant to the application of information systems within a business environment.

Informatics 324 (INF 324)

Module credits 15.00

Service modules Faculty of Engineering, Built Environment and Information Technology

Prerequisites INF 261, INF 225, INF 271 and INF 272



Contact time	2 lectures per week
Language of tuition	Module is presented in English
Department	Informatics
Period of presentation	Semester 2

Module content

Information systems in organisations.

Information science: Digital repositories 340 (INL 340)

Module credits	30.00
Service modules	Faculty of Humanities
Prerequisites	No prerequisites.
Contact time	3 lectures per week, 3 practicals per week
Language of tuition	Module is presented in English
Department	Information Science
Period of presentation	Semester 2

Module content

This module deals with the construction and management of digital repositories. It also addresses the characteristics of the digital repository in a rapidly changing technological world and a challenging information society. Core aspects include: system design, relationships to hybrid libraries, digital collections and rights management, standards, virtual referencing and the development and evaluation of digital repositories.

Information science: Socio-political aspects of information in global context 360 (INL 360)

Module credits	30.00
Service modules	Faculty of Humanities
Prerequisites	No prerequisites.
Contact time	3 lectures per week, 3 practicals per week
Language of tuition	Module is presented in English
Department	Information Science
Period of presentation	Semester 1

Module content

This module examines aspects of the information and knowledge society within local, regional and international contexts. A special focus of the module is the interaction and exchange of data, information and knowledge from communities' local knowledge system with data, information and knowledge from the global knowledge system. The module discusses the growth and role of information and communication technologies (ICTs), and their implications for development.



Information science: Competitive intelligence 380 (INL 380)

Module credits	30.00
Service modules	Faculty of Humanities
Prerequisites	No prerequisites.
Contact time	3 lectures per week, 3 practicals per week
Language of tuition	Separate classes for Afrikaans and English
Department	Information Science
Period of presentation	Semester 2

Module content

This module provides an overview of Competitive Intelligence (CI) and focuses on the needs for CI in organisations. The ways in which organisations compete and the benefits that CI can bring to these organisations will also be covered. The growing need for CI among South African organisations will also be examined. Practical examples and case studies will be used to highlight the value of CI in organisations.

The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.