BIS Information Science (12131012)

Duration of study	3 years
Total credits	415
Contact	Prof MA Holmner marlene.holmner@up.ac.za +27 (0)124205215

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: a candidate who is in possession of a certificate that is deemed by the University to be equivalent to the required Grade 12 certificate with university endorsement; a candidate who is a graduate from another tertiary institution or has been granted the status of a graduate of such an institution; and a candidate who is a graduate of another faculty at the University of Pretoria.
- Life Orientation is excluded when calculating the APS.
- Grade 11 results are used in the provisional 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. On first-year level a student has a choice between Afrikaans and English as language medium. In certain cases, tuition may be presented in English only, for example in electives, where the lecturer may not speak Afrikaans or in cases where it is not economically or practically viable.
- Should a candidate obtain an APS of 25 to 27, consideration for admission will be based on the results of the NBT, provided the quotas regarding student numbers 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				
Afrikaans or English				**APS**
NSC/IEB	HIGCSE	AS-Level	A-Level	

				28 (25-27 admission based on the NBT)
4	3	D	D	

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

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 Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	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
Academic organisation	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	Afrikaans and English is used in one class
Academic organisation	EBIT Dean's 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	Separate classes for Afrikaans and English
Academic organisation	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	Separate classes for Afrikaans and English
Academic organisation	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	3 lectures per week, 1 practical per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	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	3 lectures per week, 1 practical per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	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	Separate classes for Afrikaans and English
Academic organisation	Business Management
Period of presentation	Semester 1

Module content

Introduction to business management as a science; the environment in which the enterprise operates; the field of business, the mission and goals of an enterprise; management and entrepreneurship. Responsible leadership and the role of a business in society. The choice of a form of enterprise; the choice of products and/or services; profit and cost planning for different sizes of operating units; the choice of location; the nature of production processes and the layout of the plant or operating unit.
Introduction to and overview of general management, especially regarding the five management tasks: strategic management; contemporary developments and management issues; financial management; marketing and public relations. Introduction to and overview of the value chain model; management of the input; management of the purchasing function; management of the transformation process with specific reference to production and operations management; human resources management and information management; corporate governance and black economic empowerment (BEE).

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	Separate classes for Afrikaans and English
Academic organisation	Business Management

| **Period of presentation** | Semester 2 |

Module content

The nature and development of entrepreneurship; the individual entrepreneur and characteristics of South African entrepreneurs. Creativity and innovation, opportunity finding and exploitation. The business plan and resource requirements are explored. Getting started (business start up). Exploring different routes to entrepreneurship: entering a family business, buying a franchise, home-based business and the business buyout. This semester also covers how entrepreneurs can network and find support in their environments. Case studies of successful entrepreneurs - also South African entrepreneurs - are studied.

Elective modules

Industrial and organisational psychology 110 (BDO 110)

Module credits	10.00
Service modules	Faculty of Health Sciences
Contact time	4 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Human Resource Management
Period of presentation	Semester 1

Module content

*Only for BCur students

Industrial and organisational psychology 120 (BDO 120)

Module credits	10.00
Service modules	Faculty of Health Sciences
Prerequisites	BDO 110 GS
Contact time	4 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Human Resource Management
Period of presentation	Semester 2

Module content

*Only for BCur students

Informatics 112 (INF 112)

Module credits	10.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Natural and Agricultural Sciences

Prerequisites	Refer to Regulation 1.2(e): 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	Separate classes for Afrikaans and English
Academic organisation	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 Education Faculty of Natural and Agricultural Sciences
Prerequisites	Refer to Regulation 1.2(f): A candidate must have passed Mathematics with at least 4 (50-59%) in the Grade 12 examination
Contact time	2 practicals per week, 1 lecture per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	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 Education Faculty of Natural and Agricultural Sciences
Prerequisites	INF 154; Regulation 1.2(f): 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	Separate classes for Afrikaans and English
Academic organisation	Informatics

Period of presentation   Semester 2

Module content

Advanced programming, use of a computer-aided software engineering tool.

Criminology 110 (KRM 110)

Module credits	12.00
Service modules	Faculty of Law
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Social Work and Criminology
Period of presentation	Semester 1

Module content

Part 1: Fundamental criminology
Introduction to criminology, definition of crime, crime tendencies, classical and positivistic explanations of crime.
Part 2: Violent crime
A brief analysis of causes, consequences and mechanisms to prevent and reduce violent crime within a South African context. Define violent crime in terms of interpersonal violence, homicide, violent crimes within the criminal justice system and property-related violent crimes.

Criminology 120 (KRM 120)

Module credits	12.00
Service modules	Faculty of Law
Prerequisites	KRM 110
Contact time	2 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Social Work and Criminology
Period of presentation	Semester 2

Module content

Part 1: Penology
In Penology attention is given to the criminal justice system to emphasise the importance of using an integrated approach in the handling of offenders. The impact of overpopulation in prisons is critically evaluated. Attention is also given to awaiting trial offenders, the importance of community-based sentences as well as the re-integration of offenders in the community.
Part 2: Crime prevention and control
Responsibilities of the police and the community in crime prevention and control. Primary, secondary and tertiary crime prevention, crime prevention and reduction strategies in South Africa.

Politics 111 (PTO 111)

Module credits	12.00
Service modules	Faculty of Economic and Management Sciences Faculty of Law
Prerequisites	No prerequisites.
Contact time	1 discussion class per week, 2 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Political Sciences
Period of presentation	Semester 1

Module content

Basics of politics
An introduction to the study of organised political society at national and international levels with specific reference to political concepts, approaches and methods. The emphasis is on state and governance as frameworks for analysis. This includes the development and comparison of related political entities, processes and regime types of a democratic and non-democratic nature, also considering the salient changes brought about by globalisation.

Politics 120 (PTO 120)

Module credits	12.00
Service modules	Faculty of Economic and Management Sciences Faculty of Law
Prerequisites	PTO 111(GS)
Contact time	1 discussion class per week, 2 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Political Sciences
Period of presentation	Semester 2

Module content

Cooperation in the political world
An introduction to cooperation at national and international levels with specific reference to the nature, foundations and politics of cooperation. This includes an analysis and comparison of the politicisation, localisation and internationalisation of issues and of the problems at national, regional and international levels related to cooperation in an increasingly interdependent world characterised by the absence of supranational institutions. Attention is also paid to the corresponding dynamics of regime development, performance and change.

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	Separate classes for Afrikaans and English
Academic organisation	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 lectures per week, 2 discussion classes per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	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.

Public administration 112 (PAD 112)

Module credits	10.00
Service modules	Faculty of Humanities
Prerequisites	No prerequisites.
Contact time	3 lectures per week

Language of tuition	Module is presented in English
Academic organisation	School of Public Man + Admin
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 Humanities
Prerequisites	PAD 112 GS
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Academic organisation	School of Public Man + Admin
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.

Informatics 171 (INF 171)

Module credits	20.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Natural and Agricultural Sciences
Prerequisites	Regulation 1.2: 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	Separate classes for Afrikaans and English
Academic organisation	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.

Curriculum: Year 2

Minimum credits: 160

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	Separate classes for Afrikaans and English
Academic organisation	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 practicals per week, 3 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	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	Separate classes for Afrikaans and English
Academic organisation	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 practicals per week, 3 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	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.

Communication management 210 (KOB 210)

Module credits	16.00
Service modules	Faculty of Engineering, Built Environment and Information Technology

Prerequisites	No prerequisites.
Language of tuition	Afrikaans and English is used in one class
Academic organisation	Div Communication Management
Period of presentation	Semester 1

Module content

Management communication
Based on the paradigm of Integrated Communication (IC), this module covers management communication theory, leadership and supervisory communication, as well as the management of change and transformation through communication. Management communication in the global arena focuses on the dynamics and celebration of diversity and intercultural relations. Managers should take cognisance of the importance of development communication in both a business and community context. The importance of ethical considerations in managerial and leadership communication is emphasised. After explaining quantitative and qualitative research designs, appropriate communication research techniques are explored.

Communication management 220 (KOB 220)

Module credits	16.00
Service modules	Faculty of Engineering, Built Environment and Information Technology
Prerequisites	KOB 210 GS
Language of tuition	Afrikaans and English is used in one class
Academic organisation	Div Communication Management
Period of presentation	Semester 2

Module content

Organisational communication management
Through the utilisation of organisational communication management theories, a study is made of group and team communication, with specific emphasis on facilitation, negotiation and innovation. Knowledge management, internal communication, culture and organisational climate are core components of the complex dynamics of the sharing of meaning within the organisation. The function of strategic communication is emphasised throughout. Ethical considerations in organisational communication management are also stressed and appropriate research techniques are presented.

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
Contact time	3 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	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
Contact time	3 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Business Management
Period of presentation	Semester 2

Module content

Project management: 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.

Elective modules

Informatics 214 (INF 214)

Module credits	14.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education 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	Afrikaans and English is used in one class
Academic organisation	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 Education Faculty of Natural and Agricultural Sciences
Prerequisites	INF 164 and INF 171; AIM 101 or AIM 102 or AIM 111 and AIM 121
Contact time	1 lecture per week, 3 practicals per week
Language of tuition	Afrikaans and English is used in one class
Academic organisation	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 practical per week, 1 lecture per week
Language of tuition	Afrikaans and English is used in one class
Academic organisation	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 Education
Prerequisites	AIM 101 or AIM 102 or AIM 111 and AIM 121, INF 163, 164
Contact time	1 lecture per week, 2 discussion classes per week, 1 practical per week

Language of tuition	Afrikaans and English is used in one class
Academic organisation	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 Education Faculty of Natural and Agricultural Sciences
Prerequisites	AIM 101 or AIM 102 or AIM 111 and AIM 121, INF 163 and INF 164, Regulation IT.3(g)
Contact time	1 discussion class per week, 5 web-based periods per week, 2 practicals per week
Language of tuition	Afrikaans and English is used in one class
Academic organisation	Informatics
Period of presentation	Year

Module content

Use of computer-aided development tools; advanced programming.

Information science 230 (INL 230)

Module credits	20.00
Service modules	Faculty of Humanities
Prerequisites	No prerequisites.
Contact time	3 practicals per week, 3 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	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 practicals per week, 3 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	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
Academic organisation	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

Core modules

Information science: Information organisation 310 (INL 310)

Module credits	30.00
Service modules	Faculty of Humanities
Prerequisites	No prerequisites.
Contact time	3 practicals per week, 3 lectures per week
Language of tuition	Module is presented in English
Academic organisation	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 practicals per week, 3 lectures per week
Language of tuition	Module is presented in English
Academic organisation	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
Academic organisation	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 Faculty of Education
Prerequisites	INF 261, INF 225, INF 271 and INF 272
Contact time	2 lectures per week
Language of tuition	Afrikaans and English is used in one class
Academic organisation	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 Faculty of Education
Prerequisites	INF 261, INF 225, INF 271 and INF 272
Contact time	3 lectures per week
Language of tuition	Afrikaans and English is used in one class
Academic organisation	Informatics
Period of presentation	Semester 2

Module content

Information systems in organisations, social and ethical responsibilities, the role of the Informatician. IT end-user relationships; IT management.

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
Academic organisation	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 practicals per week, 3 lectures per week
Language of tuition	Module is presented in English
Academic organisation	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
Academic organisation	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.