University of Pretoria Yearbook 2022

BIS (Information Science) (12131012)

Department	Information Science
Minimum duration of study	3 years
Total credits	385
NQF level	07

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

Important information for all prospective students for 2022

- The admission requirements apply to students who apply for admission to the University of Pretoria with a **National Senior Certificate (NSC) and Independent Examination Board (IEB) qualifications.**
- **Applicants with qualifications other than the abovementioned** should refer to:
  - **Brochure:** Undergraduate Programme Information 2022: Qualifications other than the NSC and IEB, available at click here.
- **Citizens from countries other than South Africa (applicants who are not South African citizens)** should also refer to:
  - **Brochure:** Newcomer's Guide 2021, available at click here.
  - **Website:** click here.
- **School of Tomorrow (SOT), Accelerated Christian Education (ACE) and General Education Development Test (GED):** The University of Pretoria no longer accepts qualifications awarded by these institutions.
- **National Certificate (Vocational) (NCV) Level 4:** The University of Pretoria may consider NCV candidates, provided they meet the exemption for bachelor's status criteria and the programme requirements.

Transferring students

A transferring student is a student who, at the time of application for a degree programme at the University of Pretoria (UP) –

- is a registered student at another tertiary institution, **or** was previously registered at another tertiary institution

and did not complete the programme enrolled for at that institution, and is not currently enrolled at a tertiary institution, **or** has completed studies at another tertiary institution, but is not currently enrolled at a tertiary institution, **or** has started with tertiary studies at UP, then moved to another tertiary institution and wants to be readmitted at UP.

A transferring student will be considered for admission based on

- an NSC or equivalent qualification with exemption to bachelor's or diploma studies (whichever is applicable); **and** meeting the minimum faculty-specific subject requirements at NSC or tertiary level; **or** having completed a higher certificate at a tertiary institution with faculty-specific subjects/modules passed (equal to or more than 50%), as well as complying with faculty rules on admission;
- previous academic performance (must have passed all modules registered for up to the closing date of application) or as per faculty regulation/promotion requirements;
- a certificate of good conduct.

Note: Students who have been dismissed at the previous institution due to poor academic performance, will not be considered for admission to UP.

Returning students

A returning student is a student who, at the time of application for a degree programme –

- is a registered student at UP, and wants to transfer to another degree at UP, **or** was previously registered at UP and did not complete the programme enrolled for, and did not enrol at another tertiary institution in the meantime (including students who applied for leave of absence), **or** has completed studies at UP, but is not currently enrolled or was not enrolled at another tertiary institution after graduation.

A returning student will be considered for admission based on

- an NSC or equivalent qualification with exemption to bachelor's or diploma studies (whichever is applicable); **and** meeting the minimum faculty-specific subject requirements at NSC or tertiary level; **or** previous academic performance (should have a cumulative weighted average of at least 50% for the programme enrolled for);
- having applied for and was granted leave of absence.

Note: Students who have been excluded/dismissed from a faculty due to poor academic performance may be considered for admission to another programme at UP. The Admissions Committee may consider such students if they were not dismissed more than twice. Only ONE transfer between UP faculties will be allowed, and a maximum of two (2) transfers within a faculty.

Important faculty-specific information on undergraduate programmes for 2022

- The closing date is an administrative admission guideline for non-selection programmes. Once a non-selection programme is full and has reached the institutional targets, then that programme will be closed for further admissions, irrespective of the closing date. However, if the institutional targets have not been met by the closing date, then that programme will remain open for admissions until the institutional targets are met.
- The following persons will be considered for admission: Candidates who have a certificate that is deemed by the University to be equivalent to the required National Senior Certificate (NSC) 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 for 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.
- All modules will be presented in English, as English is the language of tuition, communication and

correspondence.

University of Pretoria website: click here

Minimum requirements **Achievement level**	
English Home Language or English First Additional Language	**APS**
NSC/IEB 4	**28**

Other programme-specific information

Because credits are not calculated in the same way in all faculties, students should note that the total number of credits required for this package is at least 425-458 depending on the choice of elective modules (as required for Group A, B or C).

Promotion to next study year

Refer also to General Academic Regulation G4.

a. A student must pass all the modules of the first year of study, before he or she is permitted to register for any module of the third year of study. Module prerequisites remain applicable. Exceptions to this rule will be considered by the relevant head of department and the Dean.
b. A new first-year student, who has failed in all the prescribed modules of the programme at the end of the first semester, will not be permitted to proceed to the second semester in the School of Information Technology.
c. A student who has not passed at least 70% of the credits of the current year of study after the November examinations will not be re-admitted to the School of Information Technology.
d. Students who fail a module for a second time, forfeit the privilege of registering for any modules of an advanced year of study.
e. Students whose academic progress is not acceptable can be suspended from further studies. Refer to the following important regulation: G4 and/or regulations as they appear for the applicable programmes.
f. A student who is excluded from further studies in terms of the stipulations of the above-mentioned regulations will be notified in writing by the Dean or admissions committee at the end of the relevant semester.
g. A student who has been excluded from further studies may apply in writing to the admissions committee of the School of Information Technology for readmission on or before 12 January.
h. Should the student be readmitted by the admissions committee, strict conditions will be set which the student must comply with in order to proceed with studies.
i. Should the student not be readmitted to further studies by the admissions committee, he/she will be informed in writing.
j. Students who are not readmitted by the admissions committee have the right to appeal to the Senate Committee for Admission, Evaluation and Academic Support.
k. Any decision taken by the Senate Committee for Admission, Evaluation and Academic Support is final.

Pass with distinction

A degree (undergraduate) in the School of IT is conferred with distinction on a student who did not repeat any module of his/her final year, obtained a weighted average of at least 75% (not rounded) in all the prescribed modules for the final year, provided that a subminimum of 65% is obtained in each of these modules and provided that the degree is completed in the prescribed minimum period of time. Ad hoc cases will be considered by the Dean, in consultation with the relevant head of department.

Curriculum: Year 1

Minimum credits: 120

Elective modules: Select one group of modules in consultation with the package organiser, select at least 40 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 the NSC will be admitted to Informatics 112 and students who obtained at least 5(60 - 69%) for Mathematics in the NSC will be admitted to Informatics 154, 164 and 171.

Fundamental modules

Academic information management 111 (AIM 111)

Module credits	4.00
NQF Level	05
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
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.

Academic information management 121 (AIM 121)

Module credits	4.00
NQF Level	05
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	Informatics
Period of presentation	Semester 2

Module content

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
NQF Level	05
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
NQF Level	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
NQF Level	05
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

Introduction to Information Science. 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, the 4th Industrial Revolution and other revolutions to come are addressed as well as core principles such as equity, diversity and inclusion.

Information science 120 (INL 120)

Module credits	12.00
NQF Level	05
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 offers a brief overview of the basic principles and processes underlying the organisation, representation, and structuring of information. The process of organising information on the web (such as social networking sites), in multimedia formats, by means of document image processing and in databases is 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 for the web, as well as the various retrieval and management tools available for metadata. 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
NQF Level	05
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 deals with the management of personal information and knowledge on a personal level which enables an individual to perform their job within an organisational context. Key themes that will be discussed include: creating an environment which is conducive to personal information and knowledge; the skills required to manage personal information and knowledge; the causes and effects of information overload, and the management of this type of phenonemon. The actions, strategies and technologies available for personal information management, as well as the manner in which individuals can switch from personal information management to personal knowledge management; the various career options in information and knowledge management.

Information science 140 (INL 140)

Module credits	12.00
NQF Level	05
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 and telecommunications technologies. Various networks, network applications. intranets, internet, the World Wide Web, deep web and cloud computing are discussed. Computer ethics, ICTs, e-commerce, ergonomics, mobile computing technology and the influence that new trends and developments such as the 4th Industrial Revolution and virtual reality have on the creation and distribution of information are covered in this module. The practical component focuses on the introduction to the coding language, Python.

Business management 114 (OBS 114)

Module credits	10.00
NQF Level	05
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
NQF Level	05
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
NQF Level	06
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
NQF Level	06
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Economic and Management Sciences Faculty of Law
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
NQF Level	05
Prerequisites	No prerequisites.
Contact time	1 tutorial per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Anthropology, Archaeology and Development Studies
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
NQF Level	05
Prerequisites	No prerequisites.
Contact time	1 tutorial per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Anthropology, Archaeology and Development Studies
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
NQF Level	07
Service modules	Faculty of Engineering, Built Environment and Information Technology 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 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
NQF Level	05
Service modules	Faculty of Engineering, Built Environment and Information Technology 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
NQF Level	06
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
NQF Level	06
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Economic and Management Sciences Faculty of Law Faculty of Theology and Religion
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
NQF Level	05
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
NQF Level	05
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
NQF Level	05
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Natural and Agricultural Sciences
Prerequisites	INF 154 GS
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
NQF Level	05
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
NQF Level	05
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
NQF Level	05
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
NQF Level	05
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
NQF Level	05
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
NQF Level	05
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
NQF Level	05
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
NQF Level	05
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
NQF Level	05
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: 140

Elective modules: Select one group of modules in consultation with the package organiser, select at least 63 credits from the INF elective group OR select 48 credits from the INL elective group.

Fundamental modules

Community-based project 202 (JCP 202)

Module credits	8.00
NQF Level	07
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 module is integrated into all undergraduate academic programmes offered by the Faculty. Main objectives: execution of a community project aimed at achieving a beneficial impact on a section of a socio-economically underprivileged community located in socio-economically deprived areas our society; awareness of personal, social and cultural values and an understanding of social issues; and development of life skills.

Core modules

Information science 210 (INL 210)

Module credits	16.00
NQF Level	06
Service modules	Faculty of Humanities
Prerequisites	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, including systematic reviewing. 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	16.00
NQF Level	06
Service modules	Faculty of Humanities
Prerequisites	INL 210
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). The fundamental concepts of information organisation are also covered including components of information retrieval systems (IRS), abstraction principles and user information needs. This module also deals with search engine optimisation.

Information science 240 (INL 240)

Module credits	16.00
NQF Level	06
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, accuracy, intellectual property, access and security information, information poverty and censorship. Digital divide, information poverty and big data are discussed in this module. The interpretation and enforcement of rules and regulations are discussed.

Business management 210 (OBS 210)

Module credits	16.00
NQF Level	06
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	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.

Publishing 220 (PUB 220)

Module credits	20.00
NQF Level	06
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

*Closed - requires departmental selection.
The Visual and Production Dimensions of Publishing. This module offers a theoretical positioning of graphic design, reproduction and printing within the publishing process, as well as practical applications thereof. The following topics are addressed in the theoretical positioning: graphic design practice; the historical development of the relationship between reproduction and printing innovations and graphic design styles; the use of visual elements in publications; the management role of the editor in this phase.
During the practical component learners are introduced to selected applications of DTP software and the practical aspects of the production phase.

Elective modules

Informatics 214 (INF 214)

Module credits	14.00
NQF Level	06
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
NQF Level	06
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
NQF Level	06
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
NQF Level	06
Service modules	Faculty of Engineering, Built Environment and Information Technology
Prerequisites	INF 164 GS, INF 171 GS
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
NQF Level	06
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Natural and Agricultural Sciences

Prerequisites	INF 164 GS, INF 171 GS
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	16.00
NQF Level	06
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. Core principles of diversity, equity and inclusion are included.

Information science 260 (INL 260)

Module credits	16.00
NQF Level	06
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. The module also addresses the different types of information industries which are located within the information sector of the economy, and how their growth transforms the production and delivery of products and services across the local and global economy.

Information science 270 (INL 270)

Module credits	16.00
NQF Level	06
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 as well as cultural competency. 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: 125

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 (75 credits) Select three INL modules
- Group C (80 credits) Select two INF modules and at least 40 credits from Group B.

Core modules

Information science 310 (INL 310)

Module credits	20.00
NQF Level	07
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. The module introduces the practical component of information organisation which includes information access, storage, organisation and security using SharePoint as a web-based collaborative platform.

Information science 320 (INL 320)

Module credits	20.00
NQF Level	07
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: Work integrated learning and experience 370 (INL 370)

Module credits	20.00
NQF Level	07
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	Module is presented in English
Department	Information Science
Period of presentation	Year

Module content

Work integrated learning and experience. 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
NQF Level	07
Service modules	Faculty of Engineering, Built Environment and Information Technology
Prerequisites	INF 261 GS, INF 225 GS, INF 271 GS
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

NQF Level	07
Service modules	Faculty of Engineering, Built Environment and Information Technology
Prerequisites	INF 261 GS, INF 225 GS, INF 271 GS
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 340 (INL 340)

Module credits	20.00
NQF Level	07
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

Digital repositories. This module deals with the design, development and management of digital repositories. It addresses the characteristics of the digital repository in a rapidly changing technological world and a challenging information society. Core aspects include: system design, digital collections, metadat and rights management, standards and the development and evaluation of digital repositories. The role repositories in the Open Access movement is considered.

Information science 360 (INL 360)

Module credits	20.00
NQF Level	07
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
Socio-political aspects of information in global context. 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 the global knowledge system. The module discusses the growth and role of information and communication technologies (ICTs), and their implications for development in various developed and developing communites and countries.

Information science 380 (INL 380)

Module credits	20.00
NQF Level	07
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
Competitive intelligence. This module provides an overview of competitive intelligence (CI) and focuses on the needs for CI in organisations. The CI cycle, identifying key intelligence topics, needs and questions are covered. The ways in which organisations compete and the benefits that CI can bring to these organisations to forecaste 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.

Business management 330 (OBS 330)

Module credits	20.00
NQF Level	07
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Business Management
Period of presentation	Semester 2

Module content
Strategy execution: The role of management in strategy implementation; budgets as instrument in the implementation process; leading processes of change within enterprises; supporting policies, procedures and information systems for implementation in the various functional areas; evaluation and control of implementation. South African case studies to create contextual relevance.

Business analytics 370 (OBS 370)

Module credits	20.00
NQF Level	07
Prerequisites	Admission to exam in OBS 359.
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Business Management
Period of presentation	Semester 2

Module content

Evaluates how to strategically align, plan for and direct investments in, and governance of, processes for continuous renewal of analytic deployments in business. An overview of analytics in the business context will be provided that will cover: concepts of strategic and operational analytics; overview of concepts like dimensional modeling, the Model Life cycle, data mining, big data, KPIs and metrics, ERP and analytics, in-database/memory analytics; real-time analytics and data stream analysis. The applied decision making aspect will focus on mastering quantitative modeling tools and techniques for business decision-making and deterministic optimisation techniques.

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