University of Pretoria Yearbook 2024

BEdHons *Assessment and Quality Assurance in Education and Training* (09240011)

Department	Science, Mathematics and Technology Education
Minimum duration of study	1 year
Total credits	128
NQF level	08

Admission requirements

1. A relevant bachelor's degree and a relevant Teacher's Diploma (e.g. BA + HED) **or** a relevant bachelor's degree, and a Postgraduate Certificate in Education **or** a relevant four-year bachelor's degree in Education (e.g. BEd) **or** a relevant M+4 Teacher's Diploma, and a relevant Advanced Diploma in Education.

Additional requirements

Selection is based on:

- Meeting the minimum academic requirements required for admission;
- Previous academic performance;
- Applicable academic and/or teaching background;
- Availability of supervision for the required research project;
- Proven academic potential which may include academic communication and computer application skills;
- Additionally, an interview may be requested;
- The requirements of professional registration bodies;
- The discretion of the head of department.

Examinations and pass requirements

Subject to exceptions approved by the Dean, on the recommendation of the relevant head of department, a student may not sit for an examination for the honours degree more than twice in the same module.

Chancellor's examination
A final-year student who has failed a maximum of three semester modules or their equivalent, with a final mark of at least 40% in each, may be admitted by the Dean to a Chancellor's examination/s in these modules during January of the following year, provided that this will enable the student to comply with all the requirements for the degree.

Research information

A research project is compulsory and must be handed in for examination, as prescribed by the particular department.

Pass with distinction

The degree is conferred with distinction on a student who has obtained an average of at least 75%, with a minimum of 70% in each module (no rounding).

Curriculum: Final year

Minimum credits: 128

When the full-time option is chosen, all "Fundamental" and "Core" modules must be selected. When the part-time option is chosen, NMQ 745, EDS 711, CDD 710 and API 711 must be selected in the 1st year and NMQ 755, one elective, AQA 780 and QPI 712 must be selected in the final year. **Elective module prerequisites** include Mathematics II for Mathematics education (MCE 730), Biology II or Zoology II or Botany II or General science II for Life sciences education (LSN 730) and Physics II or Chemistry II or General science II for Physical sciences education (PHN 730). If SCU 731 is chosen, it can only be taken in the second semester. Approval from the relevant head of department is required for MCE 730, LSN 730 and PHN 730.

Fundamental modules

Part 2: Research report 780 (AQA 780)

Module credits	16.00
NQF Level	08
Prerequisites	NMQ 755
Language of tuition	Module is presented in English
Department	Science Mathematics and Technology Education
Period of presentation	Semester 2

Module content

Supervised research project of limited scope. Use qualitative and/or quantitative methods. Writing a short report.

Part 1: Research proposal 755 (NMQ 755)

Module credits	16.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Humanities Education
Period of presentation	Semester 1

Module content

Guided literature research, formulation of a conceptual framework and development of a research proposal for a supervised research project of limited scope.

Core modules

Assessment approaches and instruments 711 (API 711)

Module credits	16.00
NQF Level	08

Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Science Mathematics and Technology Education
Period of presentation	Semester 2

Module content

Foundations, principles and ethics of assessment practices. International trends. Quantitative and qualitative modes of assessment and appropriate instruments. Generating evidence for assessment. Assessment and quality assurance. Techniques of computer-based assessment.

Curriculum development 710 (CDD 710)

Module credits	16.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Science Mathematics and Technology Education
Period of presentation	Semester 1 or Semester 2

Module content

Principles and foundations of curriculum/programme design and development. International and national models and trends in curriculum/programme development. Principles of outcomes-based programming in the SAQA context. Curriculum development models and instruments in action. Situation and task analysis needs assessment. Development. Dissemination. Implementation as a change process. Assessment and evaluation.

Philosophy and social imperatives of education 711 (EDS 711)

Module credits	16.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Educational Psychology
Period of presentation	Semester 1

Module content

Meta-theories in education. Empiricism; rational empiricism; critical rationalism; critical theory; phenomenology; hermeneutics; system theory; philosophies in education: traditional philosophies; indigenous (African) philosophies. The influence of modernism and postmodernism on education. Sociological imperatives for education. Theories of societal change and roles and values of education. Comparative perspectives on learning theories and their meaning for education.

Educational research methodology 745 (NMQ 745)

Module credits	16.00

NQF Level	08
Language of tuition	Module is presented in English
Department	Science Mathematics and Technology Education
Period of presentation	Semester 1

Module content

The nature of educational enquiry: contexts of research, research ethics, truth, rationality, subjectivity and objectivity; Quantitative and qualitative modes of enquiry, research designs and data collection techniques. Various approaches to qualitative research including case study research, historical research, ethnographic research, and action research. Basic concepts and principles of quantitative research. Statistical techniques in the educational research process. Survey methodology and questionnaire design. Classification and graphical representation of data. Descriptive measures. Statistical inference. Data-processing procedures. Parametric versus non-parametric tests. Some test statistics (e.g. F-Test and T-test). Formulating a research methodology for a limited project.

Quality assurance structures and policies 712 (QPI 712)

Module credits	16.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Science Mathematics and Technology Education
Period of presentation	Semester 2

Module content

The module provides knowledge on quality assurance, assessment and accreditation requirements within the context of the national education and training system. The focus is the legislative base, policies and structures of national and international accreditation and quality assurance bodies.

Elective modules

Instructional tools and e-learning 710 (CTM 710)

Module credits	16.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Science Mathematics and Technology Education
Period of presentation	Semester 1

Module content

The purpose of this module is to enable the candidate to master computer-integrated techniques pertaining to instructional tools and multimedia in education and training.

Education law and policy 730 (ELP 730)

Module credits	16.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Education Management and Policy Studies
Period of presentation	Semester 1 or Semester 2

Module content

The aim of this module is to equip students with intellectual, academic and literacy skills in the fields of Education Law and Policy. It also seeks to prepare them for further studies in these fields and to enhance their professional development at their places of work. The module will be of benefit to those who intend pursuing studies in education law or education policy; and to practitioners of policy and law at schools and other education working environments.

Inclusive education 731 (ISA 731)

Module credits	16.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Educational Psychology
Period of presentation	Semester 2

Module content

Theoretical basis and nature of learning diversity, learning problems/barriers to learning, learning disabilities, cognitive functioning and special educational needs. Background, principles and implementation of inclusive education policy. Principles and practical application of learning support. Identification, screening, informal assessment and support to learners who display spoken and written language, mathematics, perceptions and non-verbal learning difficulties.

Multi-literacies 730 (JGL 730)

Module credits	16.00
NQF Level	08
Prerequisites	Any undergraduate equivalent language and/or literacy module
Contact time	7 lectures
Language of tuition	Module is presented in English
Department	Humanities Education
Period of presentation	Semester 1 or Semester 2

Module content

This module introduces the concepts of multi-literacies and multimodality highlighting the importance of these when teaching learners from diverse linguistic and cultural communities. The topics dealt with in this module should not be seen in isolation but are interrelated and are applicable to teaching in the global classroom. Topics include, among others, language and literacies; language acquisition theories; current language policies; the multilingual classroom; English as a *lingua franca*; World Englishes; globalisation and school and social literacies. The student is expected to design appropriate applications of various concepts in innovative classroom practices that reflect an advanced knowledge of key South African texts, policies and issues as addressed in this module.

Life orientation education 710 (JLO 710)

Module credits	16.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Humanities Education
Period of presentation	Semester 1

Module content

The aim of this module is to develop skills, knowledge, values and attitudes that empower students to make informed decisions and to take appropriate actions in diverse educational contexts. Life orientation focuses on the self in society. As an educator it is important to realise that teaching and learning of skills, values and attitudes that occurs in the classroom must be linked to learners' everyday lives. This module aims to equip students to achieve their optimal intellectual, personal and emotional potential.

Learning support 710 (LSG 710)

Module credits	16.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Early Childhood Education
Period of presentation	Semester 1

Module content

Develop knowledge and insight regarding learners with learning difficulties. Systemic factors that influence the development of the learner; the impact of perception (motor, visual and auditory) on the integrated learning process and principles of inclusive education. A practical learning support model which focuses on assessment as well as devising a supporting strategies to cater for individual needs.

Life science education 730 (LSN 730)

Module credits	16.00
NQF Level	08
Prerequisites	No prerequisites.

Language of tuition	Module is presented in English
Department	Science Mathematics and Technology Education
Period of presentation	Semester 1 or Semester 2

Module content

The nature and structure of life science: implications for life sciences teaching; learning excellence in life sciences; development and administration of a school's life sciences department; planning of learning activities in life sciences; experimentation and research methodology; practical work, demonstrations and microscope work; management and use of organisms in the laboratory; the life sciences club; excursions and fieldwork; safety in the laboratory.

Mathematics and mathematical literacy education 730 (MCE 730)

Module credits	16.00
NQF Level	08
Service modules	Faculty of Natural and Agricultural Sciences
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Science Mathematics and Technology Education
Period of presentation	Semester 1 or Semester 2

Module content

Perspectives in the teaching and learning of mathematics. This module will focus on contemporary issues in mathematics education such as: Types of mathematical knowledge in teacher education; learning theories in mathematics education; use of technology in the teaching of mathematics; classroom research; gender; language; culture (Ethno mathematics). Mathematics in context: prospects and challenges. This module also focuses on the role of mathematics in different contexts (including vocational and real life contexts): Nature of mathematics – mathematics as a human activity; rationale for learning mathematics; the theory of realistic mathematics education; content-driven and context-driven approach in mathematics; mathematical literacy; knowledge 'transfer': some challenges – school mathematics vs real world.

Physical sciences education 730 (PHN 730)

Module credits	16.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Science Mathematics and Technology Education
Period of presentation	Semester 1 or Semester 2

Module content

Instructional strategies; reform in physics and chemistry education; alternative concepts. Curriculum leadership in Physical Sciences Education in multiple contexts.

Sciences curriculum 731 (SCU 731)

Module credits	16.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Science Mathematics and Technology Education
Period of presentation	Semester 2

Module content

The nature of the natural sciences, technology and mathematics: public understanding of scientific, mathematical and technological endeavours and their impact on society. Ethical implications of practices and advances in these fields. Indigenous Knowledge Systems (IKS), ethno-mathematics and technologies and ways of knowing. Implications for teaching and learning content, and anticipated outcomes. The purpose and nature of curricula to develop scientific ways of understanding the world.

Design and technology education 730 (TNO 730)

Module credits	16.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Science Mathematics and Technology Education
Period of presentation	Semester 1 or Semester 2

Module content

Philosophy of Technology and Design Science. Design Science is examined from an information processing point of view. The unique nature of Technology is explored and the relationships between Technology, Design and Natural Science are drawn with a particular focus on social technological understanding.

General Academic Regulations and Student Rules

The General Academic Regulations (G Regulations) and General Student Rules apply to all faculties and registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations. The G Regulations are updated annually and may be amended after the publication of this information.

Regulations, degree requirements and information

The faculty regulations, information on and requirements for the degrees published here are subject to change and may be amended after the publication of this information.

University of Pretoria Programme Qualification Mix (PQM) verification project

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