University of Pretoria Yearbook 2019

BRadHons Diagnostics (10247015)

Minimum duration of study	1 year
Total credits	120

Admission requirements

- Subject to the stipulations of the General Regulations, a candidate must hold the BRad degree, or the Bachelor in Technology: Radiography, an equivalent qualification in the relevant field of specialisation for admission to honours degree study.
- The candidate must have access to equipment and patients in a healthcare facility approved by the Department, for the purpose of undertaking work-integrated learning associated with the programme in which the student will be registered.
- The candidate must be registered as radiographer with the Health Professions Councils of South Africa (HPCSA) (for candidates who are South African Citizens). International students will be registered with the HPCSA as postgraduate students.
- Admission to study for honours degree is subject to the approval of the head of department: with the provison that a candidate must have obtained an average of more than 60% in the modules of his or her final year of the bachelor's degree study. Candidates who do not meet this requirement will be expected to pass the BRadHons bridging programme as stipulated by the Department.
- Successful completion of a research methodology module with a minimum credit weighting of 16 credits in the prerequisite degree for admission to the honours programme.

Additional requirements

All students must register for NVB 700 Research principles.

Also consult the General Regulations.

Examinations and pass requirements

Second examinations may be granted in modules not passed, according to the stipulations of the School of Healthcare Sciences in this regard.

Pass with distinction

The degree is conferred with distinction on a student who has obtained an average of at least 75% in all the modules for the degree.

Curriculum: Final year

Minimum credits: 120

Fundamental modules

Anatomical pathology 703 (ANP 703)

Module credits	5.00
Prerequisites	No prerequisites.
Contact time	1 discussion class per week
Language of tuition	Module is presented in English
Department	Anatomical Pathology
Period of presentation	Semester 1

Module content

Basic knowledge of General Pathology. Pathology and pathogenesis of some of the more common disease in several of the organ systems and integration of clinical features with the pathological aspect of a disease.

Research principles 700 (NVB 700)

Module credits	5.00
Prerequisites	No prerequisites.
Contact time	1 discussion class per week
Language of tuition	Module is presented in English
Department	Radiography
Period of presentation	Semester 1

Module content

Development and submission of a research protocol.

Radiographic anatomy 700 (RAN 700)

Module credits	20.00
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Anatomy
Period of presentation	Semester 1

Module content

Integration of anatomical concepts related to the general as well specialised imaging procedures specific to radiographic technique and image interpretation regarding the thorax, abdomen, pelvis, head and neck, vertebral column, the nervous system: brain and upper and lower limbs.

Core modules

Research report: Radiography 700 (RSK 700)

Module credits	30.00
Prerequisites	No prerequisites.
Contact time	as scheduled with study leader
Language of tuition	Module is presented in English
Department	Radiography
Period of presentation	Year

Module content

Continuation of the research process which includes the implementation of the approved research protocol and writing up a research essay of the completed research project.

Elective modules

Quality assurance 780 (RAW 780)

Module credits	20.00
Prerequisites	No prerequisites.
Contact time	1 discussion class per week
Language of tuition	Module is presented in English
Department	Radiography
Period of presentation	Semester 2

Module content

Integration of administrative and management principles. Legal and ethical requirements in management of a radiography department. Drafting a quality assurance programme and manual for a radiography department. Management of reject image analysis compilation of a programme and implantation thereof. Compiling radiation safety protection protocols. Conducting and management of quality control tests on all types of radiation emitting equipment and accessories. Staff evaluations and quality of service programmes.

Image interpretation 781 (RAW 781)

Module credits	20.00
Prerequisites	No prerequisites.
Contact time	1 discussion class per week
Language of tuition	Module is presented in English
Department	Radiography
Period of presentation	Semester 2

Module content

Advance application of image interpretation principles in image evaluation of the head and neck, chest and abdomen, axial and appendicular skeleton in biplane, three dimensional and cross sectional images. Radiographic report writing skills.

Computer tomography 782 (RAW 782)

Module credits	20.00
Prerequisites	No prerequisites.
Contact time	1 discussion class per week
Language of tuition	Module is presented in English
Department	Radiography
Period of presentation	Semester 2

Module content

Introduction to principles of CT scan. Image acquisition, processing and image evaluation and interpretation normal as well pathological images of head, neck, thorax, abdomen and musculo-skeletal system. Application of Quality assurance including quality control and radiation safety principles for all investigations and procedures. Knowledge on Contrast media administration for all the different types of procedures and investigations. Patient care. Medico-legal aspects. Clinical application and evaluation by means of case studies.

Magnetic resonance imaging 783 (RAW 783)

Module credits	20.00
Prerequisites	No prerequisites.
Contact time	1 discussion class per week
Language of tuition	Module is presented in English
Department	Radiography
Period of presentation	Semester 2

Module content

Review of basic MRI principles, image weighting and contrast, spatial encoding, k-space, image formation, instrumentation, MRI safety, trade-offs between parameters, pulse sequences, flow phenomena and basic principles of MRA. Artifacts in MRI/ Contrast agents. Functional imaging techniques and applications for various types of investigations.

Intervention 784 (RAW 784)

Module credits	20.00
Prerequisites	No prerequisites.
Contact time	1 discussion class per week
Language of tuition	Module is presented in English

Department	Radiography
Period of presentation	Semester 2

Module content

Interventional procedures for both adult and paediatric which includes all specialised radiographic modalities such as CT, MRI and Ultrasound.. Imaging principles and post processing. Intervention equipment considerations for all imaging modalities and accessory equipment for different procedures, investigations and interventions. Contrast media application and drug administration for all the different types of procedures and investigations. Patient care. Medico-legal aspects. Radiation protection. Quality assurance including quality control. Clinical application and evaluation by means of case studies.