FACULTY OF HEALTH SCIENCES

The study of Health Sciences

The Faculty of Health Sciences has an outstanding international reputation and many of our graduates are leaders in their fields, both in South Africa and worldwide. The Medical School opened its doors in 1919 and since the first four graduates in 1924, the Faculty has graduated more than 7 000 doctors and dentists and hundreds in the therapeutic science disciplines of Nursing, Occupational Therapy, Pharmacy, Physiotherapy and Biokinetics.

Among the Faculty’s renowned members are: Emeritus Professor of Anatomy, Phillip Tobias, who placed Wits and South Africa at the forefront of research into human evolution; Professor Lorna Jacklin, winner of the Checkers-Shoprite Woman of the Year in 2008 in the category of Health and Adjunct Professor Janet Poole as runner up in the category; the late Dr N. Motlana, physician to former President Mandela and chairman of NAIL; Nutrition and Medicine expert, Professor Harry Seftel and Professor Sydney Brenner, joint winner of the 2002 Nobel prize for Medicine.

The Faculty offers students a superb training with practical clinical experience in no less than five major hospitals.

The study of health sciences emphasises the importance of physical and mental well-being. Empathy, patience, initiative, integrity and technical aptitude are the essential attributes of the health caregiver.

A profession in healthcare can be physically, mentally and emotionally demanding, and healthcare practitioners are frequently exposed to life-threatening diseases. In South Africa there is an urgent need for healthcare professionals who can dedicate themselves to preventative and curative healthcare among needy communities.

It is important that students are exposed to the needs of the various communities which make up South Africa and that they can cope both with sophisticated equipment in urban hospitals and basic equipment in rural areas.

The study of health sciences provides access to various careers either as a professional practitioner, in education as a lecturer, or in medical research.

Currently there are three study plans available in the Bachelor of Health Sciences programme. These are:

- **Biomedical** – offering exciting opportunities within the biological sciences such as molecular medicine, physiology, applied anatomy and pharmacology
- **Human Sciences** – offering applicants an opportunities to combine social sciences (such as psychology and sociology) with basic sciences and fundamentals of health and disease
- **Biokinetics** – providing applicants with the opportunities to pursue a studies and professional training as a biokinetist.

Honours programmes are available for many of the major subjects completed within the Bachelor of Health Sciences degree including Forensic Sciences, Human Genetics, Medical Cell Biology and Physiology.

For more information on either the course in Exercise Science or Biokinetics Honours, please contact the Centre for Exercise Science and Sports Medicine on Tel: 011 717-3372.

Note:

There are two points of entry into MBBC:

- first year for applicants who are currently in Grade 12 and
- third year for applicants who have completed a degree (this is the Graduate Entry Medical Programme (GEMP) – see page 43).

No application to second year will be considered. Those applicants who are currently studying or who have studied at a tertiary institution are advised to complete their studies and apply for admission to the GEMP.

Programmes offered

The following undergraduate programmes are offered:

- **Bachelor of Dental Science – BDS**: (5 years)
- **Bachelor of Medicine and Bachelor of Surgery – MBBC**: 6 years (or 4 years for suitably qualified graduates)
- **Bachelor of Nursing – BNurs**: (4 years)
- **Bachelor of Science in Occupational Therapy – BSc(OT)**: (4 years)
- **Bachelor of Science in Physiotherapy – BSc(Physiotherapy)**: (4 years)
- **Bachelor of Pharmacy – BPharm**: (4 years)
- **Bachelor of Health Sciences – BHSc** (3 years) (there are three plans – Biomedical Sciences, Human Sciences and Biokinetics.)
- **Bachelor of Clinical Medical Practice – BCMP**: (3 years)
- **Diploma in Oral Hygiene - DipOH**: (2 years)*

* The Diploma in Oral Hygiene will no longer be offered. It is currently being upgraded to a three year Bachelor degree. This is an exciting development for the Faculty that will probably be introduced in 2013. For further details, please contact the Faculty Office on 011 717 2525.

Wits fact

The Faculty of Health Sciences offers professional undergraduate degrees in Medicine, Dentistry, Nursing, Pharmacy, Physiotherapy and Occupational Therapy. Training is offered with practical experience in five major hospitals in Johannesburg as well as several rural hospitals, the state of the art Wits Donald Gordon Medical Centre and various clinics. Through its partnership with the Gauteng Health Department, Wits employs over 800 medical and dental consultants who are involved in teaching undergraduates and postgraduates and in the research programmes.

Approximately 500 students graduate in these professions each year.
Bachelor of Health Sciences
The Bachelor of Health Sciences provides an appropriate undergraduate qualification to fulfil the needs of a number of health-related industries, including biotechnology, forensic science, health service and hospital management, health policy and economics, insurance and medical aid, medical science and research, the pharmaceutical industry, sport and fitness. To meet the needs of these diverse career opportunities, the programme is offered in three plans – Biomedical Sciences, Human Sciences and Biokinetics. All students major in Fundamentals of Health and Disease, and will select other courses from a wide range of courses offered by the Faculties of Health Sciences, Science, Humanities and Commerce, Law and Management.

Bachelor of Clinical Medical Practice
The aim of the programme is to develop a new group of health care workers (Clinical Associates) who will have the necessary knowledge, attitudes and psychomotor skills to be able to assist doctors and health care team members in district hospitals so as to improve patient care especially in rural and disadvantaged communities.

The qualified Clinical Associate will be expected to:
• Assist with the assessment and management of emergencies in casualty or ward situations, for children and adults, for all conditions likely to occur in a district hospital
• Take responsibility for performing routine procedures in district hospital wards, casualty and the outpatient departments under supervision
• Form an essential part of the health care team in areas of need.

The Clinical Associate will be a proud, independent member of the medical team with unique skills and knowledge. The Clinical Associate will be taught mainly at district hospitals with some training at other hospitals and Wits Medical School. The Clinical Associate curriculum is based on the principle of developing a sound knowledge of the medical and clinical sciences to enable understanding of conditions and management strategies. Students will be expected to have a detailed knowledge of the biomedical sciences in areas related to the performance of procedures. It is a three year full time programme resulting in a degree qualification.

Information for applicants
NB: All eligible applicants to Health Sciences are required to write the NBT selection tests in 2012, (see page 15 for information).
In addition, all applicants need to complete the biographical questionnaire. Please note that the biographical questionnaire includes a confidential report. Return the questionnaire with your application form to the Student Enrolment Centre by 30 June 2012.

Personal Belief Systems and Undergraduate Training
“The Faculty of Health Sciences at Wits is committed to the training of Health Science students with attributes and skills appropriate to the highest standards of the practice of the profession.”

While the University is obviously committed to wholeheartedly recognising and supporting the human rights laid down in the Constitution, it understands and acknowledges that few human rights are absolute. In general, human rights and freedom may be limited by the duty to respect the rights of others and recognition that the health care professional’s responsibilities to the patient are paramount.

There are certain requirements for degrees in the Health Sciences which every student enrolled for such programmes must satisfy prior to graduating. By satisfying these requirements a student demonstrates that he or she has acquired the essential skills and expertise necessary for the proper and ethical treatment of patients. The University must take all reasonable steps to ensure that only students who have acquired these essential skills and expertise graduate with an award in the Health Sciences.

International Applicants
The Faculty of Health Sciences is only able to consider a limited number of international applicants, who have “foreign” school-leaving certificates such as the GCE ‘A’ levels or ‘AS’ levels or HIGSCE, the International Baccalaureate or the German Abitur. All “foreign” school-leaving certificates must be evaluated for exemption equivalence. Please refer to page 7 for further details.

Enrolment
All new students who have been accepted for admission, as well as returning students, have to enrol at the beginning of each academic year. The week preceding the beginning of the academic year is set aside for enrolment, workshops, orientation and interaction with senior students. Details are sent to those applicants who have been offered a place in the Faculty.

Note:
Application enquiries should be made to the Student Enrolment Centre. The details of the enquiry will be recorded and passed to the relevant member of staff. Personal interviews will not be given without an appointment.

Closing date for all Health Sciences applicants: 30 June 2012

Contact details
Student Enrolment Centre
Tel: 011 717 1030
Email: admission.senc@wits.ac.za
Compliance

A Health Sciences practitioner without the necessary skills and expertise may improperly endanger the life and limb of the patients he or she treats and thereby infringe the patient’s fundamental human rights.

A great effort has been made to identify the minimum requirements for training to meet this aim. Aspects of clinical practice including history taking, examination of the patient and basic patient care issues must be complete and not influenced by the individual’s belief system. The standard of ethical practice which supports an open and trusting relationship between the patient and the health professional must be adhered to.

According to this commitment, the Faculty of Health Sciences will not condone any personal belief system that prevents, interferes with, or is contrary to these minimum requirements for training. After intensive consultation, we have ascertained that the various belief systems would support this approach in the training of the health professionals.

In practice, a number of situations have been noted, where students’ religious beliefs appear to conflict with programme requirements. These include but are not restricted to:

• Travelling on certain days, or travelling unaccompanied on certain journeys
• Attending a certain venue for training purposes
• Attending lectures at certain times of certain days
• Examining patients of both sexes
• Acquiring appropriate clinical skills relating to CTOP/Sterilisation procedures
• Complying with certain clothing requirements e.g. not wearing veils, which might impede or detract from patient care or appropriate training
• Performing certain skills (e.g. scrubbing) in the available facilities
• Being assessed on religious holidays which are not on the University’s official list of approved holidays (published and placed on all notice boards at the start of each academic year)
• Being on intake duty on certain days or nights.

Such objections and failure to comply with programme requirements would interfere with the training offered by the Faculty. The student in question would therefore fail to meet the requirements for a particular course as stipulated by each particular School or Department. The final decision regarding assessment and whether requirements have been met remains with the School or Department concerned.

The following situations are known to conflict with requirements:

• In any Department/Discipline requiring physical/personal interaction with patients e.g. Psychiatry, Surgery, Emergency Medicine etc. or, where a specific dress code is required e.g. Physiotherapy, Nursing etc., where the wearing of veils is unacceptable
• In the School of Oral Health Sciences students wearing veils will be required to identify themselves at the start of every clinical session and to conform to the clothing requirements as laid down by required infection control protocols
• In tests or examinations, where students wearing veils will be required to identify themselves prior to commencement.

The process is guided by the following principles:

• Meeting the minimum requirements for training as set by the Faculty
• A culture of religious tolerance.

This information has been drawn up and approved by all of the Faculty’s Undergraduate Committees and the Teaching and Learning Committee.

Any clarity required may be directed to the Office of the Assistant Dean (Student Affairs).

Statutory bodies

• All students registering for the first time for the MBBCh, BSc(Physiotherapy), BSc(OT), BDS and B CMP have to register with the Health Professions Council of South Africa (HPCSA).
• All new BNurs students are required to register with the South African Nursing Council.
• Pharmacy students register with the South African Pharmacy Council at the beginning of their second year only.
• Please note that you must bring two certified copies of your identity document when you come to enrolment.

Note:

There are many more applicants than places available and academic potential is very important although other criteria are also considered.

Please give your selection careful consideration. No changes or additions to your selected programme will be permitted after 30 June 2012.

Because the competition for places in the Health Sciences is fierce, applicants may not be successful, and, therefore advised that one of their selections should be in a faculty other than Health Sciences.

Required documentation

Applicants who have completed tertiary qualifications at other institutions must ensure that they supply an academic record and certificate of good conduct, attached to the biographical questionnaire, to the Student Enrolment Centre. Please note that credit certificates or examination results are not acceptable. Failure to do so will result in delays in the selection process and the possibility that your application will be withdrawn.

Closing date for applications

The final closing date for receipt of applications for any of the programmes in the Faculty of Health Sciences by the applicant and not by family or friends is 30 June 2012. ALL enquires should be made by the applicant and not by family or friends.
Do you already have a degree?

The Graduate Entry Medical Programme (GEMP)

The GEMP offers an entry point to the third year of the MBBCh degree at Wits for suitably qualified graduates who are interested in becoming doctors. The MBBCh years III, IV, V and VI comprise integrated multi-disciplinary and clinical courses and, as each year of study is compulsory, no student may be admitted to the degree beyond the third year of study.

Eligible applicants must have:

- an appropriate bachelors degree achieving at least a 60% average in the final year, or a combination of a bachelors degree and a higher degree (e.g. Honours, Masters, PhD)
- a full course in Biology at first year university level, or equivalent (some equivalents might be Zoology I, Life Sciences I, Physiology I, Human Structure and Function I, Anatomy I, etc.)
- a half course in Chemistry at first year university level
- a half course in Physics at first year university level
- Matriculation Mathematics passed at HG or a minimum of 60% SG, or NSC Scale of Achievement Level 5.

It is anticipated that there will be up to 120 places available in 2013. Applications which do not include the requested documentation will not be processed. The selection procedures may, at the discretion of the Senate, include an additional evaluation such as the Wits Additional Placement Test (WAPT). Applicants need to complete a biographical questionnaire and submit a complete academic transcript (credit certificates and examination results are not acceptable).

For more information visit www.health.wits.ac.za

Wits fact

Wits University has been acknowledged as the South African institution which produced the most scientific research publications pertaining to HIV/AIDS, between 1996 and 2006, according to an analysis undertaken by Pouris and Pouris entitled, *Scientometrics of a Pandemic: HIV/AIDS research in South Africa and the World*. This affirms the leading role that Wits has played at the forefront of HIV/AIDS research in South Africa and the World.
In all the programmes offered in the Faculty of Health Sciences most of the curricula for each year of study are fixed. Course selection where choice is available, is made at enrolment. It is important that you think carefully about the optional courses you wish to enrol for. Most of the first-year courses are taught at the University’s Braamfontein Campus. More information about the different courses offered is given later in this book.

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<th>HEALTH SCIENCES - CURRICULUM INFORMATION</th>
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<th>COURSE CODE</th>
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<tr>
<td>Bachelor of Medicine and Bachelor of Surgery (MF000)</td>
<td>Introduction to Medical Sciences (36 Points) Chemistry (36 Points) Physics I (36 Points) Medical Thought &amp; Practice (24 Points) Sociological Foundations of Health (18 Points) Psychological Foundations of Health (18 Points)</td>
<td>APES1001 CHEM1048 PHYS1024 SCMD1002 SOCL1016 PSYC1008</td>
<td>Human Anatomy II (48 Points) Molecular Medicine (48 Points) Physiology and Medical Biochemistry I (48 Points) Medical Thought &amp; Practice II (24 Points)</td>
<td>ANAT2020 HAEM2000 PHL5204</td>
<td>SCMD2002</td>
<td>Integrated Basic Medical and Human Sciences A (192 Points)</td>
<td>SCMD3000</td>
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<td>Bachelor of Health Sciences - Biomedical Sciences Plan (MB000)</td>
<td>Introduction to Medical Sciences (36 Points) Chemistry (36 Points) Physics I (36 Points) Medical Thought and Practice for Pharmacy and Health Sciences (24 Points) Sociological Foundations of Health (18 Points) Psychological Foundations of Health (18 Points)</td>
<td>APES1001 CHEM1048 PHYS1024 SCMD1003 SOCL1016 PSYC1008</td>
<td>Human Anatomy II (48 Points) Fundamentals of Health and Disease II (24 Points) Molecular Medicine II (48 Points) Physiology and Medical Biochemistry II (48 Points)</td>
<td>ANAT2020 FAMH2004 HAEM2000 PHL5204</td>
<td>SCMD2002</td>
<td>Fundamentals of Health and Disease III (72 Points) AND one of the following courses: Human Biology III (72 Points) Medical Cell Biology II (72 Points) Applied Anatomy III (72 Points) Molecular Medicine III (72 Points) Physiology III (72 Points) Pharmacology III (72 Points)</td>
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<td>Introduction to Medical Sciences (36 Points) Chemistry (36 Points) Physics I (36 Points) Medical Thought and Practice for Pharmacy and Health Sciences (24 Points) Sociological Foundations of Health (18 Points) Psychological Foundations of Health (18 Points)</td>
<td>APES1001 CHEM1048 PHYS1024 SCMD1003 SOCL1016 PSYC1008</td>
<td>Human Anatomy II (48 Points) Fundamentals of Health and Disease II (24 Points) Exercise Science II (48 Points) Physiology and Medical Biochemistry II (48 Points)</td>
<td>ANAT2020 FAMH2004 STHS2000 PHL5204</td>
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<td>Fundamentals of Health and Disease III (72 Points) Exercise Science III (72 Points)</td>
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<td>Bachelor of Health Sciences - Human Sciences Plan (MB000)</td>
<td>Introductory Life Sciences (36 Points) Chemistry I (36 Points) AND sufficient courses to yield a minimum of 144 points for the curriculum of the first year</td>
<td>BIOL1000 CHEM1012</td>
<td>Fundamentals of Health and Disease II (24 Points) Physiology II (48 Points) AND sufficient courses to yield a minimum of 168 points for the curriculum of the second year</td>
<td>FAMH2004 PHL5200</td>
<td>SCMD2002</td>
<td>Fundamentals of Health and Disease III (72 Points) AND A second course set with a value of 72 Points OR At least two courses at the 2000 level (with a combined points value of 96) for which the prerequisites have been fulfilled</td>
<td>FAMH3002</td>
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YEAR 4 COURSE CODE
- Comprehensive Nursing IV (48 Points)
- Women’s Health II (48 Points)
- Psycho-Social Health II (48 Points)
## HEALTH SCIENCES - CURRICULUM INFORMATION

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<tr>
<th>PROGRAMME/PLAN</th>
<th>YEAR 1</th>
<th>COURSE CODE</th>
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<th>YEAR 3</th>
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<tr>
<td>Bachelor of Dental Science (MF005)</td>
<td>Introduction to Medical Sciences (18 Points)</td>
<td>APES1001</td>
<td>Anatomy for Dental Students (36 Points)</td>
<td>ANAT2000</td>
<td>Pathology (Anatomical and Haematological) (9 Points)</td>
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<td>Chemistry I (18 Points)</td>
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<td>Oral Biology for Dental Students (24 Points)</td>
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<td>Biometrics, Health Law and Human Rights I (3 Points)</td>
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<td>Orthodontics I (3 Points)</td>
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| YEAR 4 | COURSE CODE | YEAR 5 | COURSE CODE | YEAR 3 | COURSE CODE | YEAR 3 | COURSE CODE | YEAR 3 | COURSE CODE | YEAR 3 | COURSE CODE | YEAR 3 | COURSE CODE | YEAR 3 | COURSE CODE | YEAR 3 | COURSE CODE | YEAR 3 | COURSE CODE | YEAR 3 |
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| • General Medicine and Paediatrics for Dental Students (24 Points) | MEDC4003 |
| • General Surgery (24 Points) | SURG4000 |
| • Integrated Learning III (36 Points) | OHSC4002 |
| • Oral Pathology (6 Points) | OMPA3001 |
| • Prosthodontics IV (36 Points) | PROD4001 |
| • Paediatric and Restorative Dentistry IV (36 Points) | COND4001 |
| • Periodontology (6 Points) | ORM3000 |
| • Maxillo-Facial and Oral Radiology II (6 Points) | ORM3002 |
| • Orthodontics II (6 Points) | ORTD4001 |
| • Maxillo-Facial and Oral Surgery II (6 Points) | SURG4004 |
| • Public Oral Health IV (6 Points) | COND4000 |
| • Bioethics, Health Law and Human Rights III (3 Points) | FAMH3003 |
| • Oral Medicine I (3 Points) | ORM4004 |
| • Anaesthesics (6 Points) | ANAES3000 |
| • Practice Management (3 Points) | COMD5001 |
| • Integrated Learning IV (36 Points) | OHSC5003 |
| • Prosthodontics V (24 Points) | PROD5003 |
| • Paediatric and Restorative Dentistry V (24 Points) | COND5003 |
| • Periodontology II (12 Points) | ORM5004 |
| • Maxillo-Facial and Oral Radiology III (6 Points) | ORM5005 |
| • Orthodontics III (24 Points) | ORTD5002 |
| • Maxillo-Facial and Oral Surgery III (24 Points) | SURG5002 |
| • Public Oral Health V (12 Points) | COMD5002 |
| • Oral Medicine II (12 Points) | ORM5006 |

| Bachelor of Science in Physiotherapy (MF002) | Introduction to Medical Sciences (18 Points) | APES1000 |
|                                              | Chemistry I (18 Points) | CHEM1029 |
|                                              | Physics I (18 Points) | PHYS1009 |
|                                              | Introduction to Psychology I (18 Points) | PSYC1007 |
|                                              | Basic Principles of Group and Individual Psychology I (18 Points) | PSYC1004 |
|                                              | Human Behavioural Sciences I (18 Points) | SOCIL1012 |
|                                              | Anatomy for Physiotherapy and Occupational Therapy Students (48 Points) | ANAT2033 |
|                                              | Physiotherapy I (36 Points) | PHST1000 |
|                                              | Physiotherapy II (36 Points) | PHST2000 |
|                                              | Physiotherapy III (36 Points) | PHSL2003 |
|                                              | Rehabilitation II (48 Points) | PHST4000 |
|                                              | Clinical Physiotherapy II (36 Points) | PHST4001 |
|                                              | Research Methodology Part II (36 Points) | PHST4002 |
|                                              | Management for Therapists (24 Points) | PHST2001 |
|                                              | Physiotherapy III (36 Points) | PHST4000 |
|                                              | Rehabilitation II (48 Points) | PHST4001 |
|                                              | Clinical Physiotherapy II (36 Points) | PHST4002 |
|                                              | Research Methodology Part II (24 Points) | PHST4004 |
The University is concerned about the risks that HIV/AIDS poses to its students. It is recognised that the main route of acquisition is via unprotected sexual contact but the Faculty wishes to draw to your attention that in the occupational setting, an additional risk exists to its students and healthcare professionals. The risk, however, remains low (0.36% following a needle stick injury). To minimise the risk of occupational acquisition of HIV infection, instruction in “Universal Precautions” will be provided to all students. In addition, when appropriate, instruction on post-exposure prophylaxis will be provided. Applicants who know at the time of application that they are HIV+, are advised that they may have a reduced immune response system and that this renders them vulnerable to certain infectious diseases which they are likely to encounter in their daily activities in the hospitals.

Note:

Before applying for admission, applicants should be aware that from time-to-time they may be exposed to life-threatening diseases. The University is concerned about the risks that HIV/AIDS poses to its students. It is recognised that the main route of acquisition is via unprotected sexual contact but the Faculty wishes to draw to your attention that in the occupational setting, an additional risk exists to its students and healthcare professionals. The risk, however, remains low (0.36% following a needle stick injury). To minimise the risk of occupational acquisition of HIV infection, instruction in “Universal Precautions” will be provided to all students. In addition, when appropriate, instruction on post-exposure prophylaxis will be provided. Applicants who know at the time of application that they are HIV+, are advised that they may have a reduced immune response system and that this renders them vulnerable to certain infectious diseases which they are likely to encounter in their daily activities in the hospitals.

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<tr>
<td>Bachelor of Science in Occupational Therapy (MF003)</td>
<td>Introduction to Medical Sciences (18 Points) Chemistry I (18 Points) Fundamentals of Occupational Science and Occupational Therapy I (36 Points) Physics I (18 Points) Introduction to Psychology I (18 Points) Basic Principles of Group and Individual Psychology I (18 Points) Human Behavioural Sciences I (18 Points)</td>
<td>APES1000 CHEM1028 OCCT1000 PHYS1008 PSYC1007 PSYC1004 SOCL1012</td>
<td>Anatomy for Physiotherapy and Occupational Therapy Students II (48 Points) Fundamentals of Occupational Science and Occupational Therapy II (48 Points) Physiology and Medical Biochemistry I (48 Points)</td>
<td>ANAT2033 OCCT2000 PHYS2003</td>
<td>• Occupational Therapy III applied to Physical Conditions (48 Points) • Occupational Therapy III applied to Psychiatric Conditions (48 Points) • Medicine and Surgery for Occupational Therapy • Science of Occupation II (48 Points) • Psychiatry in Relation to Occupational Therapy (48 Points) • Health Psychology (24 Points) • Research Design and Analysis (24 Points)</td>
<td>OCCT3000 OCCT3001 OCCT3002 OCCT3003 PSMH3000 PSYC2002 PSYC2009</td>
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<td>Introduction to Medical Sciences (18 Points) Chemistry I (36 Points) Physics I (18 Points) Medical Thought and Practice for Pharmacy and Health Sciences (36 Points) Sociological Foundations of Health (18 Points) Psychological Foundations of Health (18 Points)</td>
<td>APES1000 CHEM1048 PHYS1008 SCMD1003 SOCL1016 PSYC1008</td>
<td>Anatomy for Pharmacy Students (24 Points) Physiology and Medical Biochemistry I (48 Points) Pharmaceutics I (48 Points) Pharmacy Practice I (24 Points)</td>
<td>ANAT2031 PHYS2003 PACY2000 PACY2001 PACY2002</td>
<td>• Pathology (24 Points) • Medical Microbiology (24 Points) • Introduction to Biomedical Ethics (24 Points) • Pharmaceutical Chemistry II (24 Points) • Pharmacotherapy I (48 Points) • Pharmacy Practice II (24 Points) • Pharmaceutics II (24 Points) • Pharmacology I (48 Points)</td>
<td>ANAP2000 CMD2001 FAMH2002 PACY3000 PACY3001 PACY3002 PACY3003 PHAR3001</td>
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<tr>
<td>Bachelor of Clinical Medical Practice (MB001)</td>
<td>Fundamentals of Medical and Clinical Science (144 Points)</td>
<td>SCMD1001</td>
<td>Fundamentals of Clinical Medical Practice (144 Points)</td>
<td>SCMD3003</td>
<td>• Applied Clinical and Medical Practice (144 Points)</td>
<td>SCMD3003</td>
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COURSES

Chemistry

The syllabus for the full course is similar to that of Chemistry I offered in the Faculty of Science; thus a pass in this course may be used as a credit towards a BSc degree by students who decide to change faculties. The half-course cannot be used as a credit in the Faculty of Science. The full course involves three to four lectures and one tutorial per week, plus twelve practical sessions spaced at approximately two-week intervals throughout the academic year. The half-course has approximately half the number of lectures, tutorials and practicals. The full course covers: the language of chemistry, stoichiometry, kinetic molecular theory, simple models of structure and bonding, quantum theory in relation to atomic and molecular structure, the periodic table, equilibrium and thermodynamics, kinetics, electrochemistry, aqueous solutions and aspects of organic and inorganic chemistry. Laboratory work involves the preparation of substances and the determination of their composition, structure and behaviour.

Comprehensive Nursing

Introduction to concepts of health, wellness and illness, in relation to the individual family and community; introduction to professional practice including caring, rights, values and beliefs; aspects of transcultural care including interpersonal relationships, communication and lifestyle; introduction to research; first aid and clinical skills related to the above.

Introduction to Medical Sciences

Introduction to medical sciences places man in his environment and explores his relationships to it. The course is designed to form a basis for the study of human health and disease. Topics covered will include basic classification, the evolution of early life, cell and molecular biology of living organisms through functional anatomy, to evolution, genetics, parasitology and ecology. As we construct an organism from its component parts, the emphasis is on the interrelatedness of the living world and the body systems that we all share.

Clinical Dentistry

An introduction to the different disciplines of dentistry and cardiology. Students learn basic restorative and prosthetic techniques and relevant materials science. Students also commence clinical experience in preventative dentistry.

Human Behavioural Sciences (HBS)

The HBS course is concerned with the integration and application of the social sciences in the health environment. Among health workers there is an ever-increasing awareness that the biological aspects of health and disease are integrally related to social, psychological, economic, cultural and political factors. The aim of this course is to sensitize students to these broader aspects of health and to lay the foundation for an understanding of holistic health care.

Sociological Foundations of Health

This is an independent half course taught from an applied sociological perspective that has been especially tailored to the needs of future medical practitioners. The course introduces the MBBCh, Pharmacy and BHSc student to the multi-factorial causation of health and disease, and the role that the broader social environment plays in determining, shaping and intervening in health and disease in South Africa. With content including the social context of health and disease, sexuality and HIV and AIDS the course lays the foundation for the bio- psychological perspective and to provide the basis for which the spiral curriculum can take root with direct linkages to the community doctor, public health and bio-ethics offerings of the GEMP programme. Through the use of sociological perspectives and insights as applied to very concrete practical and contemporary health-care issues, course objectives will be met.

Physics

The full course is a transferable credit recognised by the Faculty of Science, while the half-course is offered only to students registered in the Faculty of Health Sciences. The objective of both courses is the understanding of the principles of physics and the application of these principles in the medical field. Examples and tutorial problems are chosen to illustrate the importance of physics in the study of anatomy and physiology. Topics covered include the following:

- Classical mechanics
- Fluid mechanics
- Waves and optics
- Thermal physics
- Electricity and electromagnetism
- Atomic and nuclear physics

The full course treats these topics in considerably more detail than the half-course. Modern medicine increasingly utilises sophisticated instrumentation, e.g. CAT scanners and MR imagers. The underlying principles of many of these instruments are treated in the full course. The associated laboratory courses have three main objectives:

- an introduction to the experimental (scientific) method
- an introduction to instrumentation
- the illustration of lecture material.

In the full course students carry out 10 experiments in a variety of fields while in the half-course students do half this number.

Wits fact

The Wits University/MRC/NICD’s Respiratory and Meningeal Pathogens Research Course (RMPRU) has been awarded a US$1.9-million grant to support a project to develop a pneumonia vaccine.
Medical Thought and Practice I

The course comprises two separate components:

- System Dynamics in Health and
- Critical Thinking and Learning Skills for Health Sciences.

**System Dynamics in Health** aims at giving the student a firm foundation in systems thinking and analysis. The course takes students through the concept of systems and how they function with different data and variables and develops the capacity to handle all manner of problems encountered by the health professional viz. biological, chemical, physical pathological, social, administrative and economic, in the context of a systems approach. As such, the students will recognise the common features of these disciplines and the ways in which they are intersected. The course will use system simulation software and have allotted laboratory time for that.

**Critical Thinking and Learning Skills for Health Sciences** is made up of a number of related outcomes. Students will learn the principles of logic and apply them to verbal reasoning and critical analysis and arguments; English language skills such as reading, writing and presentation; the Latin and Greek foundations of English medical science terminology, and basic study skills. This integration of the English language, ethics, argumentation, formal logic and an awareness of the ways in which words can be used to project ideologies facilitates effective learning strategies. In addition, students will receive regular inputs from health professionals to illustrate how the learning in the Health Sciences Programmes relate to the practice of medicine. Finally, students working in groups will be given assignments in which they have to illustrate their ability to integrate the content of different courses of the overall health sciences programmes.

In both components, real life examples from all disciplines, but mainly medicine will be drawn upon during the course. The examples will be derived from physiology, pharmacology, molecular medicine, clinical medicine, public health, epidemiology and socio-economic aspects of health care.

**Physiotherapy**

The main focus of this course will be an introduction to physiotherapy practice and learning of the basic therapeutic techniques and skills. The course covers four main areas: professional practice, respiratory therapy, neurology rehabilitation and soft tissue management.

Some of the topics in these areas include: professional code of ethics, postural drainage, breathing exercises and manual chest therapy, passive movements, bed mobility and wheelchair activities, hot and cold therapy, massage and crutch walking.

**Occupational Therapy**

This course comprises:

- Preparations for problem-based learning, communication, teaching and study skills.
- Science of occupation which includes: – the study of occupations carried out in personal, social, work and leisure spheres of life; – introduction of research into occupations.

**Psychology**

The main focus of these courses will be the application of the principles of psychology in the health sciences. The courses cover four main areas:

- The Introduction to Psychology
- Psychology of the Individual
- Human Development
- Psychology and Health

Some of the topics in these areas include: intelligence and mental abilities, social psychology, physiology and behaviour, sensation and perception, personality and abnormal behaviour, stress and health psychology.

**Psychological Foundations of Health**

This full semester course will introduce this course to the students to theoretical and practical topics in human development, behaviour and personality traits that influence the well-being of individuals. The course will provide a broad introduction to the field of psychology and the systematic and scientific study of human behaviour, the underlying theories and the application of knowledge of psychology. The main focus of the course will be the application of introductory principles of psychology for the Health Sciences. The teaching of this course will be closely integrated with sociology using methods which include formal lectures, tutorials, practicals and field trips.

**Wits fact**

The Malaria Entomology Research Course (MERU), under the directorship of Professor Maureen Coetzee, made international headlines in 2009 when they announced the discovery of a new species of mosquito in the northern regions of Malawi.

Professor Coetzee, who is also a research professor of medical entomology in the School of Pathology was awarded a South African Research Chair in Medical Entomology and Vector Control in 2007.