

# Career Information

## Bachelor of Health Sciences: Medical Orthotics and Prosthetics

### Location

Steve Biko Campus, Ritson Campus/ Wentworth Hospital

### What is an Orthotist/Prosthetist?

Medical orthotists/prosthetists (MOPs) are concerned with the design, manufacturing and fitting of splints, braces, surgical appliances (orthotics) and artificial limbs (prosthetics). MOP's are members of the rehabilitation team; helping those who require orthopaedic support.

### What work am I actually going to do?

MOPs usually work independently or in a team. Working alongside doctors, surgeons, physiotherapists, occupational therapists and nursing staff. In addition some work is referred from other medical personnel. Some of the members of the team can diagnose and assess the problems the patient is experiencing and send a treatment plan or prescription to the Orthotist/Prosthetist, who thereafter consults and formulates a treatment plan with and for the patient. The role of the O&P is both clinical and technical in nature.

With the aim of creating orthotics/prosthetics that are well-fitting and functional, medical orthotists/prosthetists examine patients' disabilities, take measurements and make plaster moulds of the affected areas. The orthotics/prosthetics are custom-fitted to the patients. Adjustments are made until both parties are fully satisfied with the results.

The profession entails a lot of direct work with the patients. Orthotists/prosthetists may use significant hours to instruct the patient on the use of the orthotics/prosthetics.

Expertise in this field is developing in response to advances in technology. Previously steel and leather were used to make appliances. Currently, plastics and materials such as carbon fibres, acrylic resin, titanium and silicone make it possible to manufacture lighter, more functional and aesthetically-pleasing orthotics/prosthetics. Technological advancement in electronics enables medical orthotists/ prosthetists to make prosthetics that function electronically. Therefore, there exists a growing scope for research in this field for those individuals who wish to further their qualifications at a later stage.

### Description of the Programme

The programme in Orthotics and Prosthetics has been developed to produce a competent clinician who is grounded in the fundamental theory and principles that underlay the practice and growth in the field of orthotics and prosthetics. The programme's strong clinical and practical components are offered as increasingly complex and demanding modules through the four years of the programme. A partnership between the Department of Medical Orthotics and Prosthetics and the KwaZulu-Natal Department of Health including the private sector will ensure that the students fully participate in focused clinical practice activities. The BHSc in Medical Orthotics and Prosthetics programme leads to professional practice and scientific advancement in Medical Orthotics and Prosthetics.

Successful completion of this qualification will entitle the student to register with the Health Professions Council of South Africa (HPCSA) as an independent Medical Orthotist and Prosthetist.

### Personal Qualities Required

Prospective MOPs should show an authentic interest in working with people with physical disabilities. They must be empathetic, patient and understanding. It is advisable to be psychologically well adjusted with an optimistic approach towards life thereby encouraging and inspiring confidence in patients. As biomechanics is a major subject in the qualification, exceptional biomechanical insight enables these professionals to design orthotics and prosthetics that are both practical and successful. Practical proficiency is an indispensable quality, since a significant portion of tasks involves the actual physical manufacturing of orthotics and prosthetics. It is therefore also to your advantage to possess artistic skills.

### Career Opportunities

There exists high demand for qualified medical orthotists and prosthetists in South Africa. This programme will play a crucial role in meeting the need to service this particular health care sector. Graduates will have an extremely high employment opportunity, due to the national and African need for practitioners in this field. Orthotists and prosthetists may find employment in a variety of settings:

- Hospitals
- Government departments
- Rehabilitation facilities / private institutions
- Specialty clinics and home health settings
- Universities and Universities of Technology

### Entry Requirements

Acceptance into the programme will be limited to 30 places.

DEPARTMENTAL NSC REQUIREMENTS		DEPARTMENTAL SENIOR CERTIFICATE REQUIREMENTS		
National Senior Certificate (NSC) with endorsement for degree entry with the following subject.		A Senior Certificate with Matriculation exemption with the following subjects at the appropriate ratings		
Compulsory Subjects	NSC Rating Code	Compulsory Subjects	HG	SG
English (home)	3	English	E	C
Life Sciences	4	Biology	D	B
Physical Sciences	4	Physical Sciences	D	B
Mathematics	4	Mathematics	D	B
And two 20 credit subjects (only one of the two can be another language)	4			

In addition to the above the following DUT general rules apply: admission requirements based on work experience, age and maturity; admission via recognition of prior learning granted through an internal process will apply.

### Additional Entry Requirements

Certain attributes including a combination of cognitive and psychomotor abilities, which will be determined through an interview, placement, test and a review of a voluntary practice report. (Available from DUT-Dept. of Med. O&P)

### Selection Procedure

Top applicants will be invited to participate in a placement test and an interview. The 30 highest-ranked persons will then be allowed access to the programme. In summary, selection criteria include:

The applicant must meet the entrance requirements and meet a minimal point's score as determined from time to time.

Applicants will be encouraged to complete at least 8 hours of voluntary service in a Prosthetic and Orthotic environment, for which a voluntary practice report must be submitted with your application.

### Tuition fees

Tuition fees are approximately R40 000 per annum. Please note that DUT cannot be held liable for the fees in this brochure as the 2017 fees are not yet final. In addition, there may be further costs associated with the programme e.g. consumables, personal equipment and prescribed text books.

## Curriculum

### First Year

Physics	R 2880
Cornerstone	R 2600
Mathematic	R 2010
Materials Science	R 7140
Anatomy I	R 6250
Biomechanics I	R 7140
Principles of Orthotics and Prosthetics	R 9440
Clinical Practice I	<u>R10 930</u>
<b>Total</b>	<b><u>R48 390</u></b>

### Second Year

Computer and Graphical communication	R 2420
Ethics and Medical Law	R 3580
Electronics	R 3230
Anatomy II	R 5350
Community Health Care and Research-Introduction	R 4320
Physiology for MOP	R 3010
Biomechanics II	R 7140
Principles of Orthotics and Prosthetics II	R 8930
Clinical Practice II	<u>R15 770</u>
<b>Total</b>	<b><u>R 53750</u></b>

### Third Year

Community Health Care and Research-Intermediate – Clinical Studies I	R 3460
Psychology	R 1730
Basic Pharmacology	R 2600
Biomechanics III	R 8410
Principles of Orthotics and Prosthetics III	R 9370
Clinical Practice II	<u>R18 970</u>
<b>Total</b>	<b><u>*R44 540</u></b>

### Fourth Year

- \*Clinical Studies II -
- \*Clinical Practice IVA (orthotics) -
- \*Clinical Practice IVB (prosthetics)-
- \*Clinic, Laboratory and Business Management -
- \*Community Health Care and Research- Advanced-
- \*Advanced Clinical Practice -

**\*Contact Department for fee structure**

**CAO Code: DUDHSP**

**Closing date for applications: 31 August 2017**

### G7 (3) Admission Requirements Based Upon Work Experience, Age and Maturity

For admission to entry level degree studies:

A person may, subject to such requirements as the Senate may determine, be admitted if such a person is in possession of a National Senior Certificate, Senior Certificate or an equivalent certificate, but lacks the minimum requirements for admission to the degree provided that:

- The person shall have reached the age of 23 in the first year of registration and shall have at least:
  - three years' appropriate work experience; and/or
  - capacity for the proposed instructional programme, which shall be assessed by a Senate-approved admission test; and the person has obtained
- A conditional certificate of exemption from the Matriculation Board (when in possession of the Senior Certificate (SC)); OR has met
- The requirements for Senate discretionary admission (when in possession of the NSC or equivalent), where Senate is satisfied the applicant has shown sufficient academic ability to ensure success, and that the person's standard of communication skills, and/or work experience are such that the person, in the opinion of the Senate, should be able to complete the proposed instructional programme successfully.
- The person's application for admission in terms of Rule G7 (3) is approved prior to registration.

Minimum duration for completion (full-time): 4 years

Entry term: Annual programme starting in January.

### For Further Information

Contact the Department of Medical Orthotics and Prosthetics, Durban University of Technology

Mr Bruce Nothing (Head of Department)

Tel: (031) 373 2035

Email: [brucen@dut.ac.za](mailto:brucen@dut.ac.za)

Ms Nosipho Thabethe (Departmental Secretary)

Tel: (031) 3736723

Email: [nosiphot@dut.ac.za](mailto:nosiphot@dut.ac.za)

Or

Mr Vikesh Singh Faculty Officer

Faculty of Health Sciences

Tel: (031) 373 2701

Email: [vikeshs@dut.ac.za](mailto:vikeshs@dut.ac.za)

### Application Forms

Contact the Central Applications Office (CAO)

Address letters to:

Central Applications Office Private Bag X06

Dalbridge 4014

Tel: (031) 268 4444

Fax: (031) 268 4422

Website: <http://www.cao.ac.za>

*This leaflet is for information purposes only and is not binding on the Durban University of Technology.*



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## CAREER INFORMATION BACHELOR OF HEALTH SCIENCES MEDICAL ORTHOTICS AND PROSTHETICS

**1 JANUARY – 31 DECEMBER 2017**

**FACULTY OF  
HEALTH  
SCIENCES**

**DEPARTMENT OF  
MEDICAL ORTHOTICS  
AND PROSTHETICS**

# 2018