

BS Prosthetics and Orthotics Program

NOMENCLATURE	
Degree Title	Bachelor of Science in Prosthetics & Orthotics
NQF Level	5 (Undergraduate)
No. of semesters/ calendar year	8
Credit Hours	140
Minimum Duration	4 (8 Semesters)
Maximum allowable duration	6 (12 Semesters)
Training Centers	Rehabilitation Institutes
Eligibility Criteria	Minimum 50% marks in HSSC (Pre-Medical) or Equivalent.
Selection Criteria	40% Aggregate unadjusted score in HSSC or equivalent, 10% aggregate unadjusted score in matric or equivalent, 40% University based entry test/any other test recognized by HEC/STMU, 10% Interview

BSPO Program

Salient Features

1. Clinical facility

Skilled and foreign qualified, PhD faculty for teaching and training.

Qualified faculty

2. Prize Money

1st, 2nd and 3rd position holders in the University/final exams avail the prize Money.

3. Skill Labs

Fully equipped labs with latest equipment for practical demonstration and development of advanced skills.

4. Library & Computer Lab

The Library & computer lab provides access to books, journals as well as electronic resources to students. rotations.

5. Transport

Facility of transport is provided from girls hostel to campus and from campus to SIH for clinical rotations.

Objectives of the program:

Program Objectives:

The learning objectives provide a comprehensive framework for the Bachelors in Prosthetics and Orthotics program, enabling graduates to acquire the necessary competencies for entry-level professional practice. The objectives of Bachelors in Prosthetics and Orthotics program are as follows:

1. To apply foundational knowledge of physical, social, health, cultural, and natural sciences along with technology to effectively assess, design, and implement prosthetic and orthotic service plans, ensuring optimal care for users across the lifespan.
2. To demonstrate social and professional responsibility, ethical behavior, and effective communication skills in diverse and collaborative healthcare settings, preparing graduates to work effectively in inter/intra-professional teams.
3. To engage in continuous professional development and lifelong learning activities, while demonstrating competencies in research and evidence-based practice, contributing to advancements in the field of prosthetics and orthotics.

Scope of Prosthetics and Orthotics

Prosthetics and Orthotics (P&O) involves designing, fabricating, and fitting artificial limbs and supportive devices. It includes creating prosthetics for limb loss, designing orthotics for musculoskeletal support, and ensuring devices improve mobility and comfort. Key advancements involve new materials, bionic and robotic limbs, and custom fabrication using CAD. P&O professionals work with healthcare teams and engage in research and development, with career opportunities in clinical practice, research, manufacturing, and consultancy. Globally, P&O addresses needs in under-resourced areas and plays a crucial role in public health, facing challenges in affordability, personalization, and sustainability.

Job prospects:

Job Prospects for BS Prosthetics and Orthotics

Graduates of the BS Prosthetics and Orthotics program can pursue diverse career paths in both government and private sectors. Employment opportunities exist in hospitals, rehabilitation centers, NGOs, and international organizations. Some of the key areas where professionals can work include:

1. Clinical Practice

Graduates can work in hospitals, rehabilitation centers, and clinics, providing direct patient care by assessing, designing, and fitting prosthetic and orthotic devices.

2. Manufacturing and Industry

Opportunities are available in the design, production, and testing of prosthetic and orthotic devices. Graduates can work in companies that manufacture these devices or participate in product development and quality control.

3. Research and Development

Graduates can engage in research activities aimed at improving prosthetic and orthotic technologies or developing new devices. This includes positions in universities and research institutions.

4. Academia and Education

Teaching opportunities are available for those interested in educating future prosthetic and orthotic professionals. Graduates can contribute to curriculum development, clinical education, and research.

5. NGOs and International Organizations

Professionals can work with non-governmental and international organizations, particularly in developing countries where there is a high demand for prosthetic and orthotic services but limited access.

6. Specialized Fields

Graduates can specialize in fields such as pediatrics, sports medicine, or bionics, allowing them to focus on specific populations or advanced technologies like 3D printing and robotic limbs.

7. Certification and Continuing Education

In many countries, certification is required to practice as a prosthetist or orthotist. Continuing education is essential for staying up-to-date with evolving technologies and techniques, providing opportunities for career advancement and specialization.

ENTRY/ADMISSION REQUIREMENT FOR BS-PO

Any one of the following qualifications is necessary for an application to be eligible for consideration. All foreign qualifications must be supported by an equivalence certificate issued by IBCC.

50% overall unadjusted score in pre-medical group at Intermediate Certification in Pakistan. However, much higher scores prove to be more competitive.

British Advanced Level (A-Level) certification with Biology, Chemistry and Physics/Mathematics. The achievements should be minimum 50% (pre-medical) in IBCC Equivalence Certificate.

US Grade-12 Diploma (minimum GPA 3.0) accompanied by an Equivalence Certificate from the IBCC of at least 50% F.Sc pre-medical qualification (that will require inclusion of Biology, Chemistry, Physics/Mathematics and English in the final 3 years). Higher Secondary School Certificate from other countries with Biology, Chemistry and

Physics/Mathematics accompanied by an Equivalence Certificate from IBCC of at least 50% F.Sc pre-medical qualification.

Students should get a minimum 50% marks in the admission test.

SELECTION CRITERIA

1. Aggregate unadjusted score in F.Sc or equivalent qualification (40%)
2. Aggregate unadjusted score in Matric or equivalent qualification (10%)
3. Interview (10%)
4. University based entry test / any other test recognized by HEC / STMU (40%)

SCHEME OF STUDY:

SEMESTER FIRST	Course code	NAME OF COURSE	CREDITS*
	RENG 1003	Functional English	3(3+0)
	RICT 1002	Applications of Information & Communication Technologies (ICT)	3(2+1)
	RICT 1011		
	RPS 1002	Pakistan Studies	2(2+0)
	RPHY 1002	Physiology-I	3(2+1)
	RPHY 1021		
	RANT 1002	Anatomy I	3(2+1)
	RANT 1021		
	RAPO 1001	Applied Prosthetics & Orthotics I	4(1+3)
	RAPO 1023		
			18
SECOND	RENG1013	Expository Writing	3(3+0)
	RIS 1002	Islamic Studies /Ethics	2(2+0)
	RMS 1002	Material Science	2(2+0)
	RPHY 1012	Physiology II	3(2+1)
	RPHY 1031		
	RANT 1012	Anatomy II	3(2+1)
	RANT 1031		
	RAPO 1011	Applied Prosthetics & Orthotics II	4(1+3)
	RAPO 1033		
			17
THIRD	RBCH 2002	Biochemistry	3(2+1)
	RBCH 2001		
	RMM 2003	Mathematics and Mechanics/Quantitative Reasoning	3(3+0)
	RBER 2003	Biomechanics I	3(3+0)
	RTW 2003	Technical Drawing	2(1+1)
	RPTM 3003	Pathology-I	3(3+0)
	RAPO 2043	Applied Prosthetics & Orthotics III	4(1+3)

	RAPO 2061		
			18
FOURTH	RBS 3002	Behavioral sciences	3(3+0)
	RWT 2002	Prosthetics and Orthotics Workshop Technology	2(2+0)
	RBER 2012	Biomechanics II	3(2+1)
	RBER 2021		
	RPTM 3012	Pathology-II	3(2+1)
	RPTM 3021		
	RBST 3002	Biostatistics	2(2+0)
	RAPO 2053	Applied Prosthetics and Orthotics IV	4(1+3)
	RAPO 2071		
			17
FIFTH	RWM 3002	Prosthetics and Orthotics Workshop Management	2(2+0)
	RCO 3003	Clinical Orthopedics	3(2+1)
	RBM 3002	Basic Medicine	2(2+0)
	RET 3003	Electro-technology	3(2+1)
	RHRP 3002	Health Regulatory Policy	2(2+0)
	RSUR 3002	Surgery	2(2+0)
	RAPO 3083	Applied Prosthetics & Orthotics V	4(1+3)
	RAPO3101		
			18
SIXTH			
	REBP 4002	Evidence Based Practice	3(2+1)
	REBP 4011		
	RRAD 4002	Radiology & diagnostic imaging	3(2+1)
	RRAD 4011		
	RCMR 30032	Community Medicine & Rehabilitation	2(2+0)
	RIP 3002	Interdisciplinary Practice	2(2+0)
	RRM 4002	Scientific Inquiry & Research Methodology	3(2+1)
	RRM 4011		
	RAPO 3093	Applied Prosthetics & Orthotics VI	4(1+3)
	RAPO 3111		
			17
SEVENTH	ROCP 4011	Orthotics Clinical Practice I	4(1+3)
	ROCP 4013		
	RPCP 4011	Prosthetics Clinical Practice I	4(1+3)
	RPCP 4013		
	RP 4002	Podiatry/Foot care	2 (2+0)
	RAPO 4003	Advanced Orthotics & Prosthetics	3(3+0)
	RCS 4003	Clinical Studies	3(3+0)
	RELS 4002	Entrepreneurship & Leadership skills	2(2+0)

			18
EIGHTH	ROCP 4021	Orthotics Clinical Practice II	4(1+3)
	ROCP 4023		
	RPCP 4021	Prosthetics Clinical Practice II	4(1+3)
	RPCP 4023		
	RMA 4002	Movement Analysis/Kinematics	2(2+0)
	RCCE 4002	Civics and Community Engagement	2(2+0)
	RRM 4026	Research Project	6(6+0)
			18
		TOTAL	141

Theory: One credit hour shall be equal to one hour of teaching per week throughout the semester.

Practical/Lab: One credit hour shall be equal to two hours of lab work per week throughout the semester.

Clinical: One credit hour shall be equal to three hours of clinical work per week throughout the semester.