University of Pittsburgh | School of Health and Rehabilitation Sciences

Master of Science in Prosthetics and Orthotics — Prerequisite Rubric/Worksheet

Required Courses	Key concepts covered	Common Equivalent Course Names (Please note this list is not exhaustive. Courses listed below are just *some* of the courses that will satisfy prerequisites)	Applicant's equivalent course(s)
Anatomy (lab recommended) and Physiology Six (6) semester credits. *A two-course sequence of anatomy/physiology may meet the anatomy and physiology requirements if there are a total of 6 credits.*	Anatomy should cover, in general: Musculo-skeletal focus preferred main systems in the human body, inclusive of musculoskeletal, nervous, integumentary, and cardiopulmonary systems. Exploration of human cadavers preferred, but mammalian accepted.	• **Human - required** • Anatomical kinesiology • Anatomy and Physiology	
	Physiology should cover, in general: Study of function of biological systems, inclusive of anatomy, cells, tissues, biological compounds, organ systems and associated interactions.	• **Human - required** • Pathophysiology • Exercise Physiology	
Biology designed for science majors with labs Four (4) semester credits	The course should cover, in general: Basic principles of general biology as related to cellular, organismic, and population-level of organization – inclusive of cell ultrastructure and function, energy transfer, reproduction, genetics, evolution, diversity, and ecology.	Courses must be for science majors or pre-med majors. **Preparatory courses** (i.e. any course **preceding** a 101-level course) leading up to Biology 101, Chem 101, Physics 101 will not fulfill the pre-requisite requirement • General Biology • Principles of Biology • Foundations of Biology • Human Biology	

Chemistry with labs Four (4) semester credits	The course should cover, in general: Examination of basic chemical molecular principles (solids, liquids, gases), chemical relationships between matter and energy – inclusive of atomic structure, properties and types of chemical bonds, chemical analysis, radioactivity and dating, molecular shapes, polarity, organic and or polymer chemistry	Courses must be for science majors or pre-med majors. **Preparatory courses** (i.e. any course **preceding** a 101-level course) leading up to Biology 101, Chem 101, Physics 101 will not fulfill the pre-requisite requirement • General Chemistry • Principles of Chemistry • Foundations of Chemistry	
Mathematics Three (3) semester credits	The course should cover, in general: Basic foundational algebra concepts, focusing on functions, equations, and inequalities. It often includes linear, quadratic, polynomial, rational, exponential, and logarithmic functions, along with solving techniques and some introductory trigonometry. The course emphasizes problem-solving skills and may include applications to real-world scenarios	• Algebra or higher	
Physics with labs Four (4) semester credits	The course should cover, in general: Basic concepts and principles related to mechanics, heat, light, sound, electricity, and magnetism – may also be inclusive of modern physics	Courses must be for science majors or pre-med majors. **Preparatory courses** (i.e. any course **preceding** a 101-level course) leading up to Biology 101, Chem 101, Physics 101 will not fulfill the pre-requisite requirement • Physics	
Psychology Three (3) semester credits	The course should cover, in general: Inclusive of studying and understanding human brain development, consciousness, behavior, and personality within context developmental and social	• General • Introductory • Abnormal • Adolescent • Child • Developmental	

	factors.	• Disability • Growth & Development • Human Behavior • Life Span Development • Rehabilitation	
Statistics Three (3) semester credits	The course should cover, in general: Asking questions, collecting appropriate data, analyzing data, and interpreting data – inclusive of specifics related to variables, cases, frequency tables, graphs and shapes of distributions, mode, median, mean, range, interquartile range and box plot, variance and standard deviation, z-scores, contingency tables, scatterplots, and Pearson's r	• Applied Statistics • Biostatistics • General Statistics • Principles of Statistical • Quantitative Methods • Research Methods	

At the time of application, no more than 4 courses can be outstanding and must be completed prior to starting the program.

Courses are recommended to be completed within the past 5 years; exceptions can be discussed by contacting the student services administrator.