

## 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 <i>some</i> of the courses that will satisfy prerequisites)	Applicant's equivalent course(s)
<p>Anatomy (lab recommended) and Physiology</p> <ul style="list-style-type: none"> <li>• Six (6) semester credits.</li> <li>• <i>A two-course sequence of anatomy/physiology may meet the anatomy and physiology requirements if there are a total of 6 credits.</i></li> </ul>	<p>Anatomy should cover, in general:</p> <p>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.</p>	<ul style="list-style-type: none"> <li>• <b>Human - <i>required</i></b></li> <li>• Anatomical kinesiology</li> <li>• Anatomy and Physiology</li> </ul>	
	<p>Physiology should cover, in general:</p> <p>Study of function of biological systems, inclusive of anatomy, cells, tissues, biological compounds, organ systems and associated interactions.</p>	<ul style="list-style-type: none"> <li>• <b>Human - <i>required</i></b></li> <li>• Pathophysiology</li> <li>• Exercise Physiology</li> </ul>	
<p>Biology designed for science majors with labs</p> <ul style="list-style-type: none"> <li>• Four (4) semester credits</li> </ul>	<p>The course should cover, in general:</p> <p>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.</p>	<p>Courses must be for science majors or pre-med majors. <b>Preparatory courses</b> (i.e. any course <b>preceding</b> a 101-level course) leading up to Biology 101 will not fulfill the requirement.</p> <ul style="list-style-type: none"> <li>• General Biology</li> <li>• Principles of Biology</li> <li>• Foundations of Biology</li> <li>• Human Biology</li> </ul>	

<p>Chemistry with labs</p> <ul style="list-style-type: none"> <li>• Four (4) semester credits</li> </ul>	<p>The course should cover, in general:</p> <p>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, organic and or polymer chemistry</p>	<p>Courses must be for science majors or pre-med majors. <b>Preparatory courses</b> (i.e. any course <b>preceding</b> a 101-level course) leading up to Chem 101 will not fulfill the requirement.</p> <ul style="list-style-type: none"> <li>• General Chemistry</li> <li>• Principles of Chemistry</li> <li>• Foundations of Chemistry</li> </ul>	
<p>Physics with labs</p> <ul style="list-style-type: none"> <li>• Four (4) semester credits</li> </ul>	<p>The course should cover, in general:</p> <p>Basic concepts and principles related to mechanics, heat, light, sound, electricity, and magnetism – may also be inclusive of modern physics</p>	<p>Courses must be for science majors or pre-med majors. <b>Preparatory courses</b> (i.e. any course <b>preceding</b> a 101-level course) leading up to Physics 101 will not fulfill the requirement.</p> <ul style="list-style-type: none"> <li>• Physics</li> </ul>	
<p>Psychology</p> <ul style="list-style-type: none"> <li>• Three (3) semester credits</li> </ul>	<p>The course should cover, in general:</p> <p>Inclusive of studying and understanding human brain development, consciousness, behavior, and personality within context developmental and social factors.</p>	<ul style="list-style-type: none"> <li>• General</li> <li>• Introductory</li> <li>• Abnormal</li> <li>• Adolescent</li> <li>• Child</li> <li>• Developmental</li> <li>• Disability</li> <li>• Growth &amp; Development</li> <li>• Human Behavior</li> <li>• Life Span Development</li> <li>• Rehabilitation</li> </ul>	

<p>Statistics</p> <ul style="list-style-type: none"> <li>• Three (3) semester credits</li> </ul>	<p>The course should cover, in general:</p> <p>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.</p>	<ul style="list-style-type: none"> <li>• Applied Statistics</li> <li>• Biostatistics</li> <li>• General Statistics</li> <li>• Principles of Statistical</li> <li>• Quantitative Methods</li> <li>• Research Methods</li> </ul>	
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At the time of application, no more than 4 courses can be outstanding and must be completed prior to starting the program. No exceptions will be made.

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