ONLINE PREREQUISITES FOR HEALTH PROFESSIONS

These 10-week courses are designed for students needing prerequisite courses for healthcare professions. The instructor-led courses are delivered using a facilitated teaching approach to engage students and encourage interaction and participation. All students who enroll in these courses are enrolled as non-degree seeking students with the School of Nursing. Courses are competitively priced and available online in the fall, spring, and summer semesters. First-time students need to submit a simple online application form.

REGISTRATION

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All students pursuing a health-based education can take the following instructor-led prerequisites completely online and get a taste of Hopkins Nursing:

- Nutrition
- Human Growth and Development Through the Lifespan
- Biostatistics
- Microbiology with virtual lab*
- Anatomy with virtual lab*
- Physiology with virtual lab*
- Chemistry with virtual lab§
- Biochemistry with virtual lab§

*Virtual labs are accepted at Hopkins Nursing, but not everywhere. Check your university and state licensure requirements for prerequisite courses. For a full list of required courses visit our pre-licensure Master of Science in Nursing: Entry in Nursing program webpage.

§Offered but not required by Johns Hopkins School of Nursing MSN Entry into Nursing program.

Students may also fund their courses through military assistance/GI Bill. For more information on using your military benefits toward tuition costs for our prerequisite courses, visit the SEAM's Online Form immediately after registering for courses so that they can make note of this in your record and ensure that you will not be dropped due to nonpayment.

NR.110.200 Nutrition-3 credits
This course will cover the science and fundamentals of human nutrition. Topics covered include nutritional requirements related to changing individual and family needs, food choices, health behaviors, food safety, prevention of chronic disease, and nutrition-related public health in the United States and globally.

NR.110.201 Human Growth and Development through the Lifespan-3 credits
This course provides an overview of major concepts, theories, and research related to human development through the lifespan from the prenatal period to the end of life. Significant factors that influence individual functioning are explored.

NR.110.202 Biostatistics-3 credits
This course provides an introduction to the basic concepts of statistical ideas and methods that aims to equip students to carry out common statistical procedures and to follow statistical reasoning in their fields of study. Principles of measurement, data summarization, and univariate and bivariate statistics are examined. Emphasis is placed on the application of fundamental concepts to real-world situations.

NR.110.203 Microbiology with Lab-4 credits
This course introduces the core concepts and basic principles in microbiology, examining microorganisms and how they interact with humans and the environment. Information regarding classifications of microorganisms, characteristics of different cell types, and processes critical for cell survival is presented. Topics such as bacterial metabolism, microbial nutrition, genetics, anti-microbial approaches, and interaction of pathogenic bacteria with humans are also discussed. The course includes a virtual laboratory component designed to complement lecture topics. The course content provides the foundation of general microbiology necessary for students who are interested in applying to health profession programs.
NR.110.204 Anatomy with Lab-4 credits
This course will introduce components and structures of the human body at the level of gross and microscopic anatomy. Students will learn organ localization in the body and structural features comprising the different body systems. The body systems covered will include the skin, heart, lungs, and brain, among others. Upon completion, students will have an understanding of normal healthy anatomy that will prepare them for professional health programs. This course includes a virtual laboratory component designed to complement lecture topics.

NR.110.205 Physiology with Lab-4 credits
This course will introduce the functions of several human body systems. Students will learn how each part within a body system works together to seamlessly accomplish tasks. We will also discuss regulation of organ function, a critical component of physiology. After an introduction on electrolytes, the physiologic processes we will cover include cardiovascular, lymphatics, and digestion, among others. Upon completion, students will have an understanding of normal healthy anatomical function that will prepare them for professional health programs. This course includes a virtual laboratory component designed to complement lecture topics.

NR.110.206 Chemistry with Lab-4 credits
This course introduces the core concepts of matter and energy, atomic structure, the periodic system, chemical bonding, nomenclature, stoichiometry, weight relationships, gases, solutions, chemical reactions, thermodynamics and equilibrium. The course includes a virtual laboratory component designed to enhance lecture topics. The course content provides the foundation of general chemistry necessary for students who are interested in applying to health profession programs.

NR.110.207 Biochemistry with Lab-4 credits
Biochemistry is a natural science that investigates life processes at the molecular level. This course begins with an introduction to the structure and function of the four classes of biomolecules: proteins, nucleic acids, carbohydrates, and lipids. In the second half of the course, glycolysis, the citric acid cycle, and oxidative phosphorylation will provide a context for an introduction to the fundamentals of enzyme catalysis, kinetics, bioenergetics, and metabolic regulation. The virtual lab promotes mastery of the lecture content while exploring lab techniques used in biochemical research. Upon completion, students will have a solid background in the science that provides the foundation of the biomedical sciences. Prerequisite: NR.110.206 Chemistry with Lab or the equivalent.