



COLUMBIA UNIVERSITY  
*School of Nursing*

Admissions &  
Financial Aid

### Columbia Nursing Pre-Requisites Guide

This document aims to provide a more detailed understanding of what types of pre-requisite courses the School of Nursing seeks based on the program being applied to.

#### General Pre-Requisite Requirements:

- Must be taken at an [accredited college or university](#) (online and community colleges are acceptable).
- A letter grade of B or better is required for all pre-requisites.
- Labs are not required.
- Advanced Placement courses are acceptable if itemized on the transcript.
- Pre-requisites do not have to be completed by the deadline. Rather, all required courses are to be completed by the start of the program.
- With the exception of Statistics, which must have been completed no later than 5 years prior to the start of the term for which you are applying, there is no expiration date for any of the other pre-requisites.

For questions about pre-requisite requirements, please feel free to email or call the Office of Admissions.

**Columbia University School of Nursing**  
**Office of Admissions**  
560 West 168<sup>th</sup> Street  
New York, NY 10032  
(212) 305-5756  
[nursing@cumc.columbia.edu](mailto:nursing@cumc.columbia.edu)

## Master's Direct Entry Program (for Non-Nurses)

<p style="text-align: center;"><b><u>English Composition</u></b> <b>(or a course listed as Writing Intensive)</b></p>	<p>A course within this area is focused on building a student's ability to communicate clearly and effectively through writing. Writing Intensive courses incorporate composition and writing assignments during the duration of the course.</p>
<p style="text-align: center;"><b><u>Psychology (Intro, Developmental, or Lifespan)</u></b></p> <p style="text-align: center;"><b>You only need to complete one course in one of these areas</b></p>	<p>There are three types of courses within the Psychology pre-requisite that Columbia Nursing will accept: Introduction to Psychology, Developmental Psychology, or Lifespan Psychology.</p> <p>A course within these areas can include completion of the following concepts:</p> <ul style="list-style-type: none"> <li>• Fundamental Principles of Psychology</li> <li>• Broad areas of research within Psychology such as but not limited to: emotion, development, memory and psychopathology.</li> <li>• Study of the human growth and development across the lifespan.</li> </ul>
<p style="text-align: center;"><b><u>Statistics</u></b></p> <p style="text-align: center;"><b>Must be completed within five years of the anticipated start term of the Columbia Nursing program</b></p>	<p>A course should include completion of the following concepts:</p> <ul style="list-style-type: none"> <li>• Measures of central tendency, dispersion, graphs, the chi-square distribution, the normal distribution, sampling distributions, <i>t</i>-tests and correlation.</li> <li>• Principles of measurement, data summarization, univariate and bivariate statistics.</li> </ul> <p>The following types of courses may satisfy the requirements: Introduction to Statistics, Basic Statistics, Biostatistics, Applied Statistics, Descriptive Statistics, Business Statistics, Probability Theory, Statistical Design and Experiment Analysis.</p>
<p style="text-align: center;"><b><u>Human Anatomy or Human Anatomy &amp; Physiology I</u></b></p> <p style="text-align: center;"><b>Labs are not required for this course</b></p>	<p>A course within this area should cover the following concepts:</p> <ul style="list-style-type: none"> <li>• Structural and functional approach to human biology with an emphasis upon cell biology, tissues, and the integumentary, skeletal, muscular, nervous, and an introduction to the endocrine system.</li> </ul>

<p><b><u>Human Physiology or Human Anatomy &amp; Physiology II</u></b></p> <p><b>Labs are not required for this course</b></p>	<p>A course within this area should cover the following concepts:</p> <ul style="list-style-type: none"> <li>• Structural and functional approach to human biology, with an emphasis on circulatory, lymphatic, respiratory, digestive, urinary, endocrine, and reproductive systems.</li> </ul>
<p><b><u>Microbiology</u></b></p>	<p>A course within this area should cover the following concepts:</p> <ul style="list-style-type: none"> <li>• Essentials of microbiology, interactions between microbes and the human host, and microbes and important human diseases.</li> <li>• Techniques for culturing, identifying, and controlling pathogenic microorganisms, host-parasite relationships, and epidemiology of infectious disease, and host defense mechanisms.</li> </ul>
<p><b><u>Nutrition</u></b></p>	<p>A course within Nutrition should include the following concepts:</p> <ul style="list-style-type: none"> <li>• Integrated overview of physiological requirements and functions of protein, energy, and the major vitamins and minerals in humans.</li> <li>• Dietary sources, intake levels, physiological role and requirement of major nutrients.</li> <li>• Role of nutrition in growth and health through the life cycle.</li> <li>• Development of dietary guidelines and nutrition policies in different countries.</li> <li>• Role of diet in the development of chronic diseases.</li> </ul>

## MS in Nurse Anesthesia

<p style="text-align: center;"><b><u>Statistics</u></b></p> <p><b>Must be completed within five years of the anticipated start term of the Columbia Nursing program</b></p>	<p>A course should include completion of the following concepts:</p> <ul style="list-style-type: none"><li>• Measures of central tendency, dispersion, graphs, the chi-square distribution, the normal distribution, sampling distributions, <i>t</i>-tests and correlation.</li><li>• Principles of measurement, data summarization, univariate and bivariate statistics.</li></ul> <p>The following types of courses may satisfy the requirements: Introduction to Statistics, Basic Statistics, Biostatistics, Applied Statistics, Descriptive Statistics, Business Statistics, Probability Theory, Statistical Design and Experiment Analysis.</p>
<p style="text-align: center;"><b><u>Health or Physical Assessment</u></b></p>	<p>A course in this area should include the following concepts:</p> <ul style="list-style-type: none"><li>• Integration of concepts and theories of biological, psychological, and sociocultural knowledge to impact health promotion, health maintenance, and illness care.</li><li>• Concepts of prevention, anticipatory guidance, and early detection of risk factors incorporated into holistic care.</li></ul>
<p style="text-align: center;"><b><u>Chemistry</u></b></p>	<p>A course in this area should teach and provide students with a survey of inorganic and physical chemistry along with an introduction to organic chemistry.</p>
<p style="text-align: center;"><b><u>Organic Chemistry</u></b></p> <p><b>Labs are not required for this course</b></p>	<p>A course in this area should include the following concepts:</p> <ul style="list-style-type: none"><li>• Basic principles that provide an understanding on the structure and reactivity of organic molecules.</li><li>• Applications to the properties and transformations of materials such as energy, gas laws, etc.</li></ul>

## Post-Baccalaureate DNP Program

For RNs with a Bachelor's Degree in Nursing

For RNs with a Master's Degree in Nursing

<p style="text-align: center;"><b><u>Statistics</u></b></p> <p><b>Must be completed within five years of the anticipated start term of the Columbia Nursing program</b></p>	<p>A course should include completion of the following concepts:</p> <ul style="list-style-type: none"><li>• Measures of central tendency, dispersion, graphs, the chi-square distribution, the normal distribution, sampling distributions, <i>t</i>-tests and correlation.</li><li>• Principles of measurement, data summarization, univariate and bivariate statistics.</li></ul> <p>The following types of courses may satisfy the requirements: Introduction to Statistics, Basic Statistics, Biostatistics, Applied Statistics, Descriptive Statistics, Business Statistics, Probability Theory, Statistical Design and Experiment Analysis.</p>
<p style="text-align: center;"><b><u>Health or Physical Assessment</u></b></p>	<p>A course in this area should include the following concepts:</p> <ul style="list-style-type: none"><li>• Integration of concepts and theories of biological, psychological, and sociocultural knowledge to impact health promotion, health maintenance, and illness care.</li><li>• Concepts of prevention, anticipatory guidance, and early detection of risk factors incorporated into holistic care.</li></ul>

## Post-Baccalaureate DNP Program

For APRNs with a Master's Degree in Nursing

<p style="text-align: center;"><u>Statistics</u></p> <p><b>Must be completed within five years of the anticipated start term of the Columbia Nursing program</b></p>	<p>A course should include completion of the following concepts:</p> <ul style="list-style-type: none"><li>• Measures of central tendency, dispersion, graphs, the chi-square distribution, the normal distribution, sampling distributions, <i>t</i>-tests and correlation.</li><li>• Principles of measurement, data summarization, univariate and bivariate statistics.</li></ul> <p>The following types of courses may satisfy the requirements: Introduction to Statistics, Basic Statistics, Biostatistics, Applied Statistics, Descriptive Statistics, Business Statistics, Probability Theory, Statistical Design and Experiment Analysis.</p>
<p style="text-align: center;"><u>Health or Physical Assessment</u></p>	<p>A course in this area should include the following concepts:</p> <ul style="list-style-type: none"><li>• Integration of concepts and theories of biological, psychological, and sociocultural knowledge to impact health promotion, health maintenance, and illness care.</li><li>• Concepts of prevention, anticipatory guidance, and early detection of risk factors incorporated into holistic care.</li></ul>
<p style="text-align: center;"><u>Advanced Physiology</u></p>	<p>This course should cover the following concepts:</p> <ul style="list-style-type: none"><li>• Advanced knowledge basis of the principles of anatomy and physiology.</li><li>• Analytical development of complex interrelationships and interdependence of organ systems in disease and wellness throughout the lifespan.</li></ul>
<p style="text-align: center;"><u>Graduate Pharmacology</u></p>	<p>This course should cover the following concepts:</p> <ul style="list-style-type: none"><li>• Accurately describe, administer, and counsel patients regarding appropriate and safe medication regimens.</li><li>• Basic pharmacologic principles and the pharmacologic actions of major drug classes covered.</li></ul>

**Health Policy**

This course should essentially provide students with an understanding of the range of health policy issues.

## **PhD Program**

<b><u>Graduate Level - Health Policy Course</u></b>	Columbia Nursing requires prospective students enroll in a graduate level health policy course. The type of course can vary and can be e-mailed to the Office of Admissions for review by the PhD Program.
---	--