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 168th Street
New York, NY 10032
(212) 305-5756
nursing@cumc.columbia.edu
**Master’s Direct Entry Program (for Non-Nurses)**

<table>
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<tr>
<th>Subject</th>
<th>Requirements</th>
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<tbody>
<tr>
<td><strong>English Composition</strong></td>
<td>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.</td>
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| **Psychology (Intro, Developmental, or Lifespan)** | There are three types of courses within the Psychology pre-requisite that Columbia Nursing will accept: Introduction to Psychology, Developmental Psychology, or Lifespan Psychology.  
A course within these areas can include completion of the following concepts:  
- Fundamental Principles of Psychology  
- Broad areas of research within Psychology such as but not limited to: emotion, development, memory and psychopathology.  
- Study of the human growth and development across the lifespan. |
| **Statistics**                                | A course should include completion of the following concepts:  
- Measures of central tendency, dispersion, graphs, the chi-square distribution, the normal distribution, sampling distributions, t-tests and correlation.  
- Principles of measurement, data summarization, univariate and bivariate statistics.  
| **Human Anatomy or Human Anatomy & Physiology I** | A course within this area should cover the following concepts:  
- 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.  
Labs are not required for this course. |
| **Human Physiology or Human Anatomy & Physiology II** | A course within this area should cover the following concepts:  
- Structural and functional approach to human biology, with an emphasis on circulatory, lymphatic, respiratory, digestive, urinary, endocrine, and reproductive systems. |

| **Labs are not required for this course** | |

| **Microbiology** | A course within this area should cover the following concepts:  
- Essentials of microbiology, interactions between microbes and the human host, and microbes and important human diseases.  
- Techniques for culturing, identifying, and controlling pathogenic microorganisms, host-parasite relationships, and epidemiology of infectious disease, and host defense mechanisms. |

| **Nutrition** | A course within Nutrition should include the following concepts:  
- Integrated overview of physiological requirements and functions of protein, energy, and the major vitamins and minerals in humans.  
- Dietary sources, intake levels, physiological role and requirement of major nutrients.  
- Role of nutrition in growth and health through the life cycle.  
- Development of dietary guidelines and nutrition policies in different countries.  
- Role of diet in the development of chronic diseases. |
# MS in Nurse Anesthesia

## Statistics

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A course should include completion of the following concepts:

- Measures of central tendency, dispersion, graphs, the chi-square distribution, the normal distribution, sampling distributions, *t*-tests and correlation.
- Principles of measurement, data summarization, univariate and bivariate statistics.


## Health or Physical Assessment

A course in this area should include the following concepts:

- Integration of concepts and theories of biological, psychological, and sociocultural knowledge to impact health promotion, health maintenance, and illness care.
- Concepts of prevention, anticipatory guidance, and early detection of risk factors incorporated into holistic care.

## Chemistry

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.

## Organic Chemistry

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A course in this area should include the following concepts:

- Basic principles that provide an understanding on the structure and reactivity of organic molecules.
- Applications to the properties and transformations of materials such as energy, gas laws, etc.
## Post-Baccalaureate DNP Program

**For RNs with a Bachelor’s Degree in Nursing**  
**For RNs with a Master’s Degree in Nursing**

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## Post-Baccalaureate DNP Program
For APRNs with a Master’s Degree in Nursing

| Statistics | A course should include completion of the following concepts:  
|            |  
|            | • Measures of central tendency, dispersion, graphs, the chi-square distribution, the normal distribution, sampling distributions, t-tests and correlation.  
|            | • Principles of measurement, data summarization, univariate and bivariate statistics.  
| Health or Physical Assessment | A course in this area should include the following concepts:  
| Advanced Physiology | This course should cover the following concepts:  
| Graduate Pharmacology | This course should cover the following concepts:  
|            | • Integration of concepts and theories of biological, psychological, and sociocultural knowledge to impact health promotion, health maintenance, and illness care.  
|            | • Concepts of prevention, anticipatory guidance, and early detection of risk factors incorporated into holistic care.  
|            | • Advanced knowledge basis of the principles of anatomy and physiology.  
|            | • Analytical development of complex interrelationships and interdependence of organ systems in disease and wellness throughout the lifespan.  
|            | • Accurately describe, administer, and counsel patients regarding appropriate and safe medication regimens.  
|            | • Basic pharmacologic principles and the pharmacologic actions of major drug classes covered.  

Updated December 21, 2018
| **Health Policy** | This course should essentially provide students with an understanding of the range of health policy issues. |
| Graduate Level - Health Policy Course | 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. |