

Post-Baccalaureate Health Sciences Certificate Program

2007-08

General Education Requirements

Before starting on the core curriculum, students must show minimum competency by completing or transferring in equivalent courses with grades of B or above for the following: MATH 151, BIOL 151, BIOZ 151, BIOL 152, BIOZ 152, CHEM. 101, CHEZ 101, CHEM. 102, and CHEZ 102. Students must have completed all chemistry courses within 5 years of the time they begin the program in order to apply them toward the minimum competency requirement. Upon matriculating in the program, students must maintain a 3.0 cumulative GPA and may not repeat courses.

Core Curriculum

The academic requirements for the certificate are as follows: a minimum of 6 undergraduate courses or 25 academic credit hours in mathematics, statistics, chemistry, biology, or physics. All courses must be at the 200 level or above. At least 3 of the courses must have a laboratory.

A maximum of 11 credit hours can be transferred towards the core curriculum of the certificate program. All students must have earned a minimum grade of B in all course work accepted for transfer. All course work accepted for transfer must be from an accredited institution. Students should consult with the Pre-Health Sciences Advisors to determine the most appropriate courses to meet their educational and career goals.

NAME _____

Mathematical Reasoning: Placement test or previous college credit required before enrolling.

	Credits	Grade
MATH 151 Pre-calculus (MATH 141 or placement)		

Introductory Biology Prerequisites are in parentheses

BIOL 151 (Placement into MATH 151 and a grade of "C" or better in CHEM 100 or placement into CHEM 101)		
--	--	--

BIOZ 151L Intro Biology Lab I		
-------------------------------	--	--

BIOL 152 (Placement into MATH 151 and a grade of "C" or better in CHEM 100 or placement into CHEM 101)		
--	--	--

BIOZ 152L Intro Biology Lab II		
--------------------------------	--	--

General Chemistry:

CHEM 101 General Chemistry I		
------------------------------	--	--

CHEZ 101L General Chemistry I Lab		
-----------------------------------	--	--

CHEM 102 General Chemistry II		
-------------------------------	--	--

CHEZ 102L General Chemistry II Lab		
------------------------------------	--	--

Courses in Math and Statistics

MATH 200 Calculus with Analytic Geometry		
--	--	--

STAT 210 Basic Principles of Statistics		
---	--	--

STAT 314 Applications of Statistics		
-------------------------------------	--	--

Courses in Physics

	Credits	Grade
PHYS 201 General Physics I OR PHYS 207 University Physics I		
PHYS 202 General Physics II OR PHYS 208 University Physics II		

Courses in Biology

BIOL 218 Cell Biology		
-----------------------	--	--

BIOL 301 Comparative Vertebrate Anatomy <u>or</u> BIOL 205 Human Anatomy		
--	--	--

BIOL 302 Animal Embryology		
----------------------------	--	--

BIOL 303 Bacteriology <u>or</u> BIOL 209 Medical Microbiology		
---	--	--

BIOL 308 Vertebrate Histology		
-------------------------------	--	--

BIOL 310 Genetics		
-------------------	--	--

BIOZ 310L Genetics Lab		
------------------------	--	--

BIOL 311 Animal Physiology <u>or</u> PHIS 206 Human Physiology		
--	--	--

BIOL 445 Neurobiology and Behavior		
------------------------------------	--	--

BIOL 455 Immunology		
---------------------	--	--

BIOL 524 Endocrinology		
------------------------	--	--

BIOL 530 Human Genetics		
-------------------------	--	--

BIOL 540 Molecular Genetics		
-----------------------------	--	--

Courses in Chemistry:		
CHEM 301 Organic Chemistry I		
CHEZ 301L Organic Chemistry Lab I		
CHEM 302 Organic Chemistry II		
CHEZ 302L Organic Chemistry Lab II		
CHEM 309 Quantitative Analysis		
CHEZ 309L Quantitative Analysis Lab		
CHEM 303 Physical Chemistry I		
CHEZ 303L Physical Chemistry Lab I		
CHEM 304 Physical Chemistry II		
CHEZ 304L Physical Chemistry Lab II		
CHEM 305 Physical Chemistry for the Life Sciences		
CHEM 310 Medicinal Chemistry		
CHEM 320 Inorganic Chemistry		
CHEM 403 Biochemistry		
CHEM 404 Advanced Biochemistry		

FRSC/BIOL 438 Molecular Biology		
---------------------------------	--	--

Post-Baccalaureate Health Sciences Certificate Program

CERTIFICATE REQUIREMENTS:

- Minimum of 24 total credits in Science Courses
- 3.00 GPA
- At least 3 laboratory courses.
- All students accepted into the program must also commit to at least 50 hours of volunteer service in the VCU Medical Center Volunteer Program or a private health care setting. Volunteer hours must be documented and submitted to the Office of Pre-Health Sciences at the time application is submitted for graduation.