B.S. – Biology / Clinical Sciences concentration

This concentration requires completion of a clinical sciences program at an affiliated institution in order to earn the BS in Biology.

(Effective Fall 2012) (An overall GPA of at least 2.5 is required to remain in this concentration)

GENERAL EDUCATION PROGRAM

I. Required Skills and Competencies (16 cr.)

Fluency in Writing
ENG 101, 106 or 110 (3) ____

Fluency in Speech
HCS 100 – Human Communication (3)____

Historical Perspective
HIS 105 - His Foun Glob Cul (3) ____
HIS 106 - Thin His Glob Age (3) ____

Mathematical Competency –
MAT 211 - Calculus I (4) ____

Reading Comprehension (required only if the student needs additional instruction; credits do NOT count towards graduation)

II. Categories of Knowledge* (35 cr.)

A. Logic and Numbers for Rational Thinking
MAT 117 – Applied Statistics (4) ____

B. Linguistics, Literary, Artistic, Cultural Traditions (9)
_____ (lit.)
_____ (humanity)
_____ (humanity)

C. Biological and Physical Sciences
BIO 161 – Principles of Biology: Cell Structure & Function (4) ____
CHM 121 – Chemical Bonding (3) ____
PHY 121 – Intro. to Physics I (3) ____

D. Political, Economic, Geographic Sciences(6)
_____
_____

E. Social and Behavioral Sciences (6)
_____
_____

* Refer to the Undergraduate Catalog to determine the courses that can be counted under each section.

51 credits

MAJOR REQUIREMENTS

I. Biology Requirements*

Core Courses:
BIO 161 – Princ. Bio: Cell Structure & Function (4) *see Category C*
BIO 162 – Princ. Bio: Organismal Diversity (4)____
BIO 220 - Microbiology (3) ____
BIO 260 - Genetics (3) ____
BIO 350 – Human Physiology (4) ____
BIO 385 – Cell Biology (3) ____
BIO 300 – Careers/Health Professions(1)____

Plus a minimum of 7 additional biology credits. *See additional electives required/recommended for each clinical concentration.***

* Students must earn a C or higher in BIO 161 & 162 before upper division Biology courses may be taken.

Math Requirements *(listed under the general education program)*
MAT 117 – Applied Statistics
MAT 211 – Calculus I

Chemistry Requirements (13 credits)
CHM 121 - Chemical Bonding (*Cat. C*) with CHM 125 lab IB (1) ____
CHM 122 - Chemical Dynamics (3) with CHM 126 lab IIB (1) ____
CHM 221 - Organic Chemistry I (3) with CHM 225 lab IIIB (1) ____
CHM 227 – Intro. to Biochemistry (4) ____

+ Organic II w/lab may be substituted for CHM 227, however, CHM 227 is recommended.

Physics Requirements (5 credits)
PHY 121 - Introductory Physics I (*Cat. C*) with PHY 123 – Physics I lab (1) ____
PHY 122 - Introductory Physics II (3) with PHY 125 – Physics II lab (1) ____

43-44 credits

***** Specific courses to meet Clinical Science concentration requirements***

MEDICAL TECHNOLOGY:

REQUIRED:
BIO 409 – Immunology (3) ____
BIO 324 – Pathogenic Microbiology (3) ___
BIO 374 – Hematology (2) ____

ALSO RECOMMENDED IF TIME PERMITS:
BIO 317 – Parasitology (3) ____
BIO 418 – Molecular Biology (3) ____

CYTOTECHNOLOGY:

STRONGLY RECOMMENDED:
BIO 371 – Human Anatomy (4) ____
BIO 418 – Molecular Biology (3) ___

HISTOTECHNOLOGY:

REQUIRED:
BIO 371 – Human Anatomy (4) ____
BIO 375 – Histology (3) ____

RESPIRATORY THERAPY:

REQUIRED:
BIO 371 – Human Anatomy (4) ____

STRONGLY RECOMMENDED IF TIME PERMITS:
BIO 409 – Immunology (3) ____
Also recommended:
ENG 248 – Technical/Professional Writing (3) ____

All SU coursework must be successfully completed prior to beginning the clinical program.

Credits from the Clinical Year.

Up to 30 credits will be transferred back to SU after successful completion of the clinical program.

Revised July 2012