

# COLLEGE OF HEALTH SCIENCES

John McFadden, Ph.D., R.N., Dean

Faculty: Ackbarali, Carr, Cervantes, Colvin, Delpech, Fernandez, Hackett, Hershorin, Jaffe, Lamet, Lavandera, Marshall, McGregor, Miles, Milne, Owen, Packert, Peoples, Rafalko, Rice, Schwal, Shaw, Subramoney

## History of the College

The College was formed in 2008 to facilitate the collaboration of existing schools and programs across the campus. The College now houses undergraduate and graduate programs that prepare students to become healthcare professions in a number of disciplines. The College consists of the Division of Nursing and the Departments of Biomedical Sciences, Clinical Biology, Cardiovascular Perfusion, Occupational Therapy, Anesthesia, Health Services Administration, and Public Health.

The purpose of the College of Health Sciences is to provide high-quality education that will prepare competent, thoughtful, ethical and compassionate health professionals who gain value in serving others. This is accomplished within an environment that fosters personal and professional growth.

The goals of the College of Health Sciences are to:

- 1) Provide a health professional education to a culturally diverse student body;
- 2) Offer didactic, laboratory, and clinical courses and other educational experiences that meet the requirements of Barry University and of entrance into professional programs and careers; and
- 3) Develop a sense of ethical and social responsibility through opportunities in local and global community service.

The College of Health Sciences strives to graduate professionals who demonstrate the knowledge, skills, and behaviors to be successful in their careers and contribute to the communities they serve. Academic programs within the College provide students an opportunity to learn, grow, and develop into successful healthcare providers. Students learn in a number of

culturally diverse communities, contributing to acceptance and respect for others. Graduates return to the community as informed and educated leaders.

The College of Health Sciences reserves the right to remove any student for academic or non-academic reasons as outlined in University, or program policies and procedures.

## CLINICAL BIOLOGY PROGRAM

Gerhild Packert, Ph.D., Associate Dean and Program Director

Clinical Biology is a term used to describe a range of occupations in which individuals have responsibility for assisting, facilitating, or complementing physicians and other specialists in delivering healthcare services to patients. Advances in the prevention and diagnosis of disease, in therapy and rehabilitation, and the need to cope with new health and environmental concerns have increased demands for skilled personnel in allied health fields. A student entering these fields must possess moral character, reliability, manual dexterity, and the ability to remain calm, courteous, and efficient under adverse conditions and stressful situations. Barry offers a choice of three different programs for students seeking to meet the growing demand in these fields: Histotechnology, Medical Technology, and Clinical Biology.

The curricula of the Clinical Biology Program are dynamic, supported by the belief that society and the healthcare field are ever-changing. In keeping with the mission of Barry University, the Clinical Biology Program aims to provide a quality education amidst an atmosphere of religious dimension, social responsibility, scholarly research and respect for human dignity.

Acceptance to Barry University does not automatically guarantee acceptance to the Clinical Biology Program.

## Health Professions Foundation

The Health Professions Foundation is for those students interested in pursuing one of the clinical biology specialization programs after two years of study. Students in the Health Professions Foundation will take foundation courses in biology, chemistry, math and physics, as well as general distribution requirements, before applying to one of the specialization programs. Acceptance to an individual specialization program, be it Histotechnology or Medical Technology, is dependent upon the satisfactory completion of the first two years of study. The department's admissions committee will review academic performance and suitability to each discipline before granting a change of major into a specialization program.

## ADMISSION REQUIREMENTS

Applications are accepted on an ongoing basis. Incoming freshmen seeking admission must submit a completed application for undergraduate study and provide official transcripts from high schools attended.

## CORE COURSEWORK

BIO 104	Biological Foundations	(3 s.h.)
BIO 104L	Biological Foundations Lab	(1 s.h.)
BIO 105	Biomedical Terminology	(1 s.h.)
BIO 220	Introductory Human Anatomy	(3 s.h.)
BIO 220L	Introductory Human Anatomy Lab	(1 s.h.)
BIO 240	Introduction to Human Physiology	(4 s.h.)
BIO 240L	Introduction to Human Physiology Lab	(1 s.h.)
CHE 111	General Chemistry and Qualitative Analysis	(3 s.h.)
CHE 111L	General Chemistry and Qualitative Analysis Lab	(1 s.h.)
CHE 152	Introduction to Organic and Biological Chemistry	(3 s.h.)
CHE 152L	Introduction to Organic and Biological Chemistry Lab	(1 s.h.)
MAT 109	Precalculus Mathematics I	(3 s.h.)
MAT 152	Elementary Probability and Statistics	(3 s.h.)
PHY 151	Introductory Physics	(3 s.h.)
PHY 151L	Introductory Physics Lab	(1 s.h.)
CS 180	Introduction to Computers	(3 s.h.)
General distribution courses as required.		

## Clinical Biology (B.S.) Specialization Programs

Students are accepted from the Health Professions Foundation. The Specialization Programs are open to those students applying for transfer from the Health Professions Foundation and from other programs

within Barry University. Students wishing to transfer from other institutions are also welcome to apply. All students must be able to prove, through the satisfactory completion of previous coursework, that they are able to perform well in a rigorous academic program focusing on the clinical sciences.

Students will graduate from this program with a bachelor's degree in Clinical Biology and a specialization in either Histotechnology or Medical Technology. Participation in clinical experiences is a required part of the curriculum and will be undertaken off-campus at clinical affiliate sites. Credit hours for the Clinical Experience courses are charged the standard tuition rate.

## ADMISSION REQUIREMENTS

Applications are accepted on an ongoing basis. Transfer students seeking admission to the Clinical Biology Specialization programs must submit a completed application through the College of Health Sciences, provide official transcripts from institutions attended, and submit a personal statement and two satisfactory professional letters of recommendation from faculty or supervisors. A personal interview is required before acceptance into the program. Students may transfer up to 64 credits from an accredited community college and an additional 26 upper-level credit hours from an accredited university. Eligibility for each specialization option is at the discretion of the program director.

## DEGREE REQUIREMENTS FOR SPECIALIZATION PROGRAMS

Major:	Minimum 50 semester hours in biology courses
Math:	6 semester hours, equivalent to MAT 109 and MAT 152
Chemistry:	Minimum 8 semester hours, exclusive of Clinical Chemistry, equivalent to CHE 111 and CHE 152 with labs
Physics:	4 semester hours
Computer:	Minimum 3 semester hours, equivalent to CS 180
Distribution:	36 semester hours, inclusive of PHI 353
Upper-Level credits:	48 semester hours
Total number of credits:	120 (minimum)

## General Non-Academic Requirements

### Vision

- Read charts, labels, graphs; discriminate colors and record results

### Speech and Hearing

- Communicate effectively using standard English, and assess non-verbal information

### Fine Motor Skills

- Skills necessary to operate instruments and manipulate tools related to the chosen field

### Psychological Skills

- Possess the emotional health required to utilize full intellectual abilities
- Recognize emergency situations and take appropriate actions

## International Students

International students who have completed all or part of their college coursework outside of the United States at an internationally listed institution must submit their transcripts to an official international transcript evaluation service. Information about professional evaluating services in the United States is available from the Office of Health Sciences Admissions. Official transcripts and the international credit evaluation must be submitted to Barry University for admission and evaluation purposes.

Students are also required to obtain a score of at least 500 (61 on the internet-based test) on the Test of English as a Foreign Language (TOEFL). Official test results must be submitted to the Office of Health Sciences Admissions, Barry University.

## Educational Objectives

Graduates will have acquired the ability to:

Demonstrate entry-level competencies in the basic procedures of the chosen field;

Demonstrate the skills and attitudes needed for clinical competencies in the allied health professions;

Implement basic principles of laboratory and clinical safety procedures;

Develop the knowledge and skill in education, management and research to fulfill the leadership roles within the clinical environment;

Integrate knowledge and research to be able to critique and analyze data and published studies related to the field; and

Develop an awareness of major health, social and economic problems of the community and the world at large.

## Histotechnology Specialization

Histotechnology is a structural science concerned with the evaluation of tissues, their cellular morphology and their chemical composition. Histotechnologists work under the supervision of a pathologist, preparing, cutting, processing and staining tissue specimens of human, animal or plant origin for diagnostic, research and teaching purposes. New technologies and methodologies are constantly being developed, making this area of Clinical Biology one of the most exciting and dynamic in the workplace today. Patient contact is limited.

Histotechnologists must have critical thinking skills, precision, fine manual dexterity, and the ability to work well under pressure and with minimal supervision. Additional requirements include the ability to operate basic instruments including microtomes, cryostats, embedding stations and processing equipment, and the ability to perform basic maintenance procedures on this equipment. The ability to differentiate materials with the aid of a microscope is also required. Graduates from this program will have acquired the ability to demonstrate entry-level competencies in the basic procedures of fixation, embedding, frozen sectioning, microtomy, routine and special stains and immunohistochemistry. Graduates are eligible to sit for the American Society for Clinical Pathology (ASCP) HTL certification examination.

The Histotechnology Specialization Program is approved by the Florida Department of Health, Board of Clinical Laboratory Personnel, and accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS): 5600 N. River Road, Suite 720, Rosemont, IL 60018 / Telephone: 773-714-8880 / Fax: 773-714-8886 / E-mail: [info@naacls.org](mailto:info@naacls.org).

## CORE COURSEWORK BS in Clinical Biology/Histotechnology Specialization

CLB 300A	Special Topics: Orientation	(1 s.h.)
CLB 300K	Special Topics: QC in the Laboratory	(2 s.h.)
BIO 303	Genetics	(3 s.h.)
CLB 317	Laboratory Management Seminar	(2 s.h.)
BIO 325	Microbiology	(3 s.h.)
BIO 330	Cell Biology	(3 s.h.)
CLB 432	Immunology/Serology	(3 s.h.)
CLB 445	Microtechnique Lecture	(2 s.h.)
CLB 445L	Microtechnique Lab	(2 s.h.)
CLB 450	Histology Lecture	(2 s.h.)
CLB 450L	Histology Lab	(2 s.h.)
CLB 460	Advanced Histotechnology I	(2 s.h.)
CLB 465	Advanced Histotechnology II	(2 s.h.)
CLB 475	Seminar	(3 s.h.)
CLB 484	Clinical Experience I – Histotechnology	(2-6 s.h.)
CLB 489	Clinical Experience II – Histotechnology	(2-6 s.h.)

## Medical Technology Specialization

Medical technologists are healthcare professionals that play a key role in examining, analyzing and providing results from blood and body fluids. They represent the major group of laboratory professionals and are highly trained and technically skilled. Medical technologists use sophisticated precision laboratory equipment and work in all areas of the lab including chemistry, hematology, microbiology, immunology and blood bank. Medical technologists perform analytical patient testing, develop and modify procedures, establish quality control and quality assurance programs and may supervise clinical laboratory technicians.

With increasing automation and use of computer technology the complexity of tests performed, and the level of judgment needed, is constantly increasing and the technologist must be able to work under pressure with minimal supervision. Patient contact is limited.

The state of Florida requires laboratory personnel to be licensed or certified. In order to obtain state of Florida licensure, the medical technologist must first pass a national certification examination as a generalist. This examination is offered by the following agencies: American Medical Technologists (AMT) and the American Association of Bioanalysts (AAB). Furthermore, some states have additional requirements for licensure or certification of laboratory personnel. (Refer to National Licensure Requirements on the following pages.) Information on licensure is available from state departments and/or health departments. The National Accreditation Agency for Clinical Laboratory Sciences (NAACLS), the Commission on Accreditation of Allied Health Education Programs and the Accrediting Bureau of Health Education Schools are nationally recognized accrediting agencies.

## CORE COURSEWORK

### BS in Clinical Biology/Medical Technology Specialization

CLB 300A	Special Topics: Orientation	(1 s.h.)
CLB 300K	Special Topics: QC in the Laboratory	(2 s.h.)
CLB 300	Special Topics: Advanced Laboratory Technique I	(2 s.h.)
CLB 300	Special Topics: Advanced Laboratory Technique II	(2 s.h.)
BIO 303	Genetics	(3 s.h.)
CLB 317	Laboratory Management Seminar	(2 s.h.)
BIO 325	Microbiology	(3 s.h.)
BIO 330	Cell Biology	(3 s.h.)
BIO 346	Parasitology	(3 s.h.)
CLB 427	Biochemistry I	(3 s.h.)
CLB 428	Biochemistry II	(3 s.h.)
CLB 432	Immunology/Serology	(3 s.h.)
CLB 456	Clinical Chemistry	(3 s.h.)
CLB 462	Hematology	(3 s.h.)

CLB 475	Seminar	(3 s.h.)
CLB 479	Blood Banking	(3 s.h.)
CLB 480	Clinical Experience I – Medical Technology	(1-6 s.h.)
CLB 485	Clinical Experience II – Medical Technology	(1-6 s.h.)
CLB 490	Clinical Experience III – Medical Technology	(1-6 s.h.)

General distribution courses are needed to fulfill the degree requirements (refer to Catalog for course descriptions and requirements). In fulfillment of the distribution requirement, PHI 353 - Biomedical Ethics is required.

Each didactic course must be passed with at least the minimally acceptable grade of C or higher. Students must maintain a minimum overall GPA of 2.75.

## IMMUNIZATION AND PHYSICAL EXAMINATION

Before attending the Clinical Experience, the student must present proof of medical insurance, a physical examination and current immunizations to include annual TB screening (PPD), Diphtheria Inoculation Tetanus (DTP), MMRx2, and Hepatitis B. These documents must be presented before the student will be allowed to progress to Clinical Experience status. Physical exams and immunizations will be done at the student's expense.

## PARTICIPATION IN THE CLINICAL EXPERIENCE

Students need 30 hours taken in residence at Barry University before enrolling in the Clinical Experience. Students must provide their own transportation to the clinical site. Clinical relocation may be necessary, which may include the student providing for and maintaining housing and living expenses for the duration of the program. Students must be financially prepared to enter into and complete the program. *Important Notice: Participation in clinical experiences, rotations or fieldwork is a required part of the curriculum for the BS in Clinical Biology Specialization Programs and a requirement for graduation. Clinical affiliate sites require a drug and criminal background check in order to permit participation in the Clinical Experience. The program may deny a student's participation in the Clinical Experience because of a felony or misdemeanor conviction, failure of a required drug test, or inability to produce an appropriate health clearance, which would result in delayed graduation or the inability to graduate from the program. Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding individual eligibility may be obtained from*

*the appropriate credentialing bodies. Drug screening and background checks will be done at the student's expense.*

The minimum passing grade for each Clinical Experience is: Clinical Experience I, "73" (C) or higher; Clinical Experience II and III, "83" (B) or higher.

The grading scale for the Clinical Experience courses is as follows:

- 93 – 100 = A
- 83 – 92 = B
- 73 – 82 = C
- 68 – 72 = D
- Below 68 = F

### **PROGRESSION IN THE PROGRAM AND ACADEMIC DISMISSAL**

Students must maintain an overall GPA of at least 2.75 at all times. Each didactic course must be passed with at least the minimally acceptable grade of C or higher. In the event a grade lower than C is received in any didactic biology course, the student must submit a letter to the program's Student Affairs Committee, requesting permission to repeat the course and continue in the program. The members of the Committee will evaluate the student's academic and advisee records, and depending upon this evaluation, the student may be allowed to repeat the course. If the permission is not granted, the student will not be able to continue in the program.

One didactic course may be repeated *one* time with the consent of the program's Student Affairs Committee. The grades of D, F, W, WP and WF are considered the same as a grade lower than C when repeating any didactic course.

Students will not be able to enroll in any Clinical Experience until all didactic courses have been successfully completed. Should a student fail to meet the minimum passing grade of "73" (C) or higher for Clinical Experience I, the student will be dismissed from the remainder of the program.

Students participating in the Clinical Experience are expected to demonstrate progression of clinical and professional skills and good laboratory practice at all times. Students' failure to do so will result in dismissal from the Clinical Experience and therefore the program.

### **SITES**

Didactic and lab courses are taught at Barry University on the main campus. Clinical Experiences are offered at clinical affiliate sites throughout the State of Florida.

### **ACCREDITATION**

Barry University's Histotechnology Specialization Program is approved by the Florida Department of Health, Board of Clinical Laboratory Personnel, and accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS): 5600 N. River Road, Suite 720, Rosemont, IL 60018 / Telephone: 773-714-8880 / Fax: 773-714-8886 / E-mail: [info@naaccls.org](mailto:info@naaccls.org).

Barry University's Medical Technology Specialization Program is approved by the Florida Department of Health, Board of Clinical Laboratory Personnel.

### **CLINICAL BIOLOGY COMPLETION PROGRAM (B.S.)**

Barry's undergraduate Clinical Biology Completion Program prepares licensed allied health professionals, including histotechnicians, medical laboratory technicians, nuclear medicine technicians, respiratory technicians, and diagnostic medical sonography technicians, for a bachelor's degree in Clinical Biology. Students are able to transfer 64 semester hours from an accredited community college technician program, and up to an additional 26 upper-level semester hours from an accredited university.

### **PREREQUISITES**

Biology (12 semester hours)

- General Biology
- Physiology with Lab
- Anatomy with Lab

Chemistry (8 semester hours)

- General Chemistry
- Introduction to Organic and Biological Chemistry with Lab

Math (6 semester hours)

- College Algebra
- Statistics

Physics (4 semester hours)

### **General Non-Academic Requirements**

#### **Vision**

- Read charts, labels, graphs; discriminate colors and record results

#### **Speech and Hearing**

- Communicate effectively using standard English, and assess non-verbal information

#### **Fine Motor Skills**

- Skills necessary to operate instruments and manipulate tools related to the chosen field

### Psychological Skills

- Possess the emotional health required to utilize full intellectual abilities
- Recognize emergency situations and take appropriate actions

### International Students

International students who have completed all or part of their college coursework outside of the United States at an internationally listed institution must submit their transcripts to an official international transcript evaluation service. Information about professional evaluating services in the United States is available from the Office of Health Sciences Admissions. Official transcripts and the international credit evaluation must be submitted to Barry University for admission and evaluation purposes.

Students are also required to obtain a score of at least 500 (or 61 on the internet-based test) on the Test of English as a Foreign Language (TOEFL). Official test results must be submitted to the Office of Health Sciences Admissions, Barry University.

### Educational Objectives

Graduates will have acquired the ability to:

- Develop the knowledge and skill in education, management and research to fulfill the leadership roles within the clinical environment;
- Demonstrate the skills and attitudes needed for clinical competencies in the allied health professions;
- Implement laboratory and clinical safety procedures;
- Develop an awareness of major health, social and economic problems of the community and the world at large; and
- Integrate knowledge of healthcare and scientific research to be able to comprehend and analyze data and published studies related to the graduate's chosen field.

### CORE COURSEWORK

#### Clinical Biology Completion Program

All students must meet the following requirements:

BIO 105	Biomedical Terminology	(1 s.h.)
CLB 300A	Special Topics: Orientation	(1 s.h.)
CLB 300K	Special Topics: QC in the Laboratory	(2 s.h.)
BIO 303	Genetics	(3 s.h.)
CLB 317	Laboratory Management Seminar	(2 s.h.)
BIO 325	Microbiology	(3 s.h.)
BIO 330	Cell Biology	(3 s.h.)
BIO 346	Parasitology	(3 s.h.)
CLB 432	Immunology/Serology	(3 s.h.)
CLB 427	Biochemistry I	(3 s.h.)

CLB 428	Biochemistry II	(3 s.h.)
CLB 475	Seminar	(3 s.h.)

Additional courses to satisfy upper-level biology requirements are available. Please see: Core Coursework – BS in Clinical Biology Specialization Programs for a list of available courses.

Classes may be substituted at the discretion of the Program Director.

General distribution courses are needed to fulfill the degree requirements (refer to Catalog for course descriptions and requirements). PHI 353 – Biomedical Ethics is required.

Each didactic course must be passed with at least the minimally acceptable grade of C or higher. Students must maintain a minimum overall GPA of 2.75.

### DEGREE REQUIREMENTS

Major:	Minimum 48 semester hours in biology courses
Math:	6 semester hours, equivalent to MAT 109 and MAT 152
Chemistry:	Minimum of 8 semester hours, exclusive of Clinical Chemistry. CHE 111 and CHE 152 with labs can be transferred.
Computer:	Minimum 3 semester hours, (CS 180)
Distribution:	36 semester hours, inclusive of PHI 353
Upper-Level credits:	48 semester hours
Total number of credits:	120, with a minimum of 30 credits from Barry University

### PROGRESSION IN THE PROGRAM AND ACADEMIC DISMISSAL

Students must maintain an overall GPA of at least 2.75 at all times. Each didactic course must be passed with at least the minimally acceptable grade of C or higher. In the event a grade lower than C is received in any didactic biology course, the student must submit a letter to the program's Student Affairs Committee, requesting permission to repeat the course and continue in the program. The members of the Committee will evaluate the student's academic and advisee records, and depending upon this evaluation, the student may be allowed to repeat the course. If the permission is not granted, the student will not be able to continue in the program.

One didactic course may be repeated *one* time with the consent of the program's Student Affairs Committee. The grades of D, F, W, WP and WF are considered the same as a grade lower than C when repeating any didactic course.

## NATIONAL LICENSURE REQUIREMENTS

Upon successful completion of the Clinical Biology Completion Program, the student will be eligible for technologist certification by ASCP, NCA, AMT, AAB, NMTCB, ARDMS or other applicable certifying agencies. Please note that certification agencies may change their qualifying requirements; it is the student's obligation to meet those requirements.

## POST-BACCALAUREATE CERTIFICATE IN HISTOTECHNOLOGY PROGRAM

The Post-Baccalaureate Certificate in Histotechnology program is designed for students who have already earned a bachelor's degree from an accredited institution and have fulfilled the prerequisites defined under the Clinical Biology Completion Program. This 4 + 1 program prepares the student for histotechnology certification with nine months of additional study, and includes a five-month Clinical Experience at clinical affiliate sites in South Florida. Students successfully completing the program are eligible to sit for the American Society for Clinical Pathology (ASCP) HTL certification examination. Please note that certification agencies may change their qualifying requirements; it is the student's obligation to meet those requirements.

## CORE COURSEWORK

### Post-Baccalaureate Certificate Program

CLB 300A	Special Topics: Orientation	(1 s.h.)
CLB 300K	Special Topics: QC in the Laboratory	(2 s.h.)
CLB 317	Laboratory Management Seminar	(2 s.h.)
CLB 445L	Microtechnique Lab	(2 s.h.)
CLB 445	Microtechnique Lecture	(2 s.h.)
CLB 450L	Histology Lab	(2 s.h.)
CLB 450	Histology Lecture	(2 s.h.)
CLB 460	Advanced Histotechnology I	(2 s.h.)
CLB 465	Advanced Histotechnology II	(2 s.h.)
CLB 484	Clinical Experience I	(2-6 s.h.)
CLB 489	Clinical Experience II	(2-6 s.h.)

## IMMUNIZATION AND PHYSICAL EXAMINATION

Before attending the Clinical Experience, the student must present proof of medical insurance, a physical examination and current immunizations to include annual TB screening (PPD), Diphtheria Inoculation Tetanus (DTP), MMRx2, and Hepatitis B. These documents must be presented before the student will be allowed to progress to Clinical Experience status. Physical exams and immunizations will be done at the student's expense.

## PARTICIPATION IN THE CLINICAL EXPERIENCE

Clinical relocation may be necessary, which may include the student providing for and maintaining housing and living expenses for the duration of the program. **Important Notice:** Participation in clinical experiences is a required part of the curriculum for the Post-Baccalaureate Certificate in Histotechnology Program and a requirement for completion of the program. Clinical affiliate sites require a drug and criminal background check in order to permit participation in the Clinical Experience. The program may deny a student's participation in the Clinical Experience because of a felony or misdemeanor conviction, failure of a required drug test, or inability to produce an appropriate health clearance, which would result in delayed graduation or the inability to graduate from the program. Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding individual eligibility may be obtained from the appropriate credentialing bodies. Drug screening and background checks will be done at the student's expense.

## PROGRESSION IN THE PROGRAM AND ACADEMIC DISMISSAL

Students must maintain an overall GPA of at least 2.75 at all times. Each didactic course must be passed with at least the minimally acceptable grade of C or higher. In the event a grade lower than C is received in any didactic biology course, the student must submit a letter to the program's Student Affairs Committee, requesting permission to repeat the course and continue in the program. The members of the Committee will evaluate the student's academic and advisee records, and depending upon this evaluation, the student may be allowed to repeat the course. If the permission is not granted, the student will not be able to continue in the program.

One didactic course may be repeated *one* time with the consent of the program's Student Affairs Committee. The grades of D, F, W, WP and WF are considered the same as a grade lower than C when repeating any didactic course.

Students will not be able to enroll in any clinical experience until all didactic courses have been successfully completed. Should a student fail to meet the minimum passing grade of "73" (C) or higher for Clinical Experience I, the student will be dismissed from the remainder of the program.

Students participating in the Clinical Experience are expected to demonstrate progression of clinical and professional skills and good laboratory practice

at all times. Students' failure to do so will result in dismissal from the Clinical Experience and therefore the program.

## ACCREDITATION

Barry University's Post-Baccalaureate Certificate in Histotechnology Program is approved by the Florida Department of Health, Board of Clinical Laboratory Personnel, and accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS): 5600 N. River Road, Suite 720, Rosemont, IL 60018 / Telephone: 773-714-8880 / Fax: 773-714-8886 / E-mail: [info@naacls.org](mailto:info@naacls.org).

## Course Descriptions – Prefix: BIO Biology

### 303 Principles of Human Genetics (3)

The major goal is to acquire an understanding of the relationship between genes and phenotypes. Emphasis will be placed on familiarizing the student with the molecular nature of the hereditary material, gene function, and gene inheritance. In addition, the student will be introduced to recombinant DNA technology and learn how these techniques are utilized in human genetics.

### 330 Cell Biology (3)

Biological processes in procaryotic and eukaryotic cells, with emphasis on the correlation between structure and function on the molecular level.

### 346 Parasitology (3)

Morphology, taxonomy, identification, life history, host-parasite relationship, and control of protozoan, helminthes, and arthropod parasites.

## Course Descriptions – Prefix: CLB Clinical Biology Program

### 300 Special Topics (1-3)

Content to be determined as required for accreditation or to fill specified needs or interests.

### 317 Laboratory Management Seminar (2)

General introduction to laboratory management for allied health professionals; emphasis on theories, methods, and techniques used in management, with specific application to the laboratory.

### 427, 428 Biochemistry I, II (3) (3)

Introduction to the fundamental aspects of biochemistry, emphasizing the relationship between structure and function of the major classes of macromolecules in living systems. Metabolic interrelationships and control mechanisms are discussed as well as the biochemical basis of human disease.

### 432 Immunology/Serology (3)

This course presents fundamental concepts of immunology, discusses the role of immune system in health and disease, introduces serological and antibody-based methods in the clinical laboratory, and reviews current knowledge in immunologic therapy. Prerequisites: BIO 104 or equivalent, CHE 152 or 343.

### 445/445L Microtechnique and Lab (2) (2)

Theory and extensive hands-on experience in the histotechnology laboratory. Students learn how to use basic instrumentation in preparation for the Histotechnology Clinical Experience. Prerequisite: BIO 104, BIO 220 or equivalent, and CLB 450/L.

### 450/450L Histology and Lab (2) (2)

Microscopic identification of human tissues. Emphasis on the relationship between structure and function. Prerequisite: BIO 104, BIO 220 or equivalent.

### 456 Clinical Chemistry (3)

The course is designed to explore the science, principles and theories of clinical chemistry and its applications. Course lectures will provide an introduction to the various tests performed in a clinical chemistry laboratory. The course will present the physiological basis, principle, procedures and the clinical significance of test results, including quality control and reference values.

### 460 Advanced Histotechnology I (2)

This course introduces students to advanced aspects of histological procedures used in clinical settings. The course will focus on the theoretical basis of immunohistochemistry, enzyme histochemistry and electron microscopy. Prerequisites: CLB 445/L.

### 462 Hematology (3)

This course introduces basic principles of the study of blood cells. The fundamental concepts of biology, cellular morphology and chemistry as applied to the diagnosis of hematological diseases that are related to or manifested in the blood or bone marrow are presented. The course will include the theoretical and practical application of hematology procedures.

### 465 Advanced Histotechnology II (2)

This course is a capstone course for the histotechnology program. Working in teams, all students will conduct a directed research project around a clinical case study. Students will be required to work collaboratively in the design, implementation, and presentation of their research findings. Prerequisites: CLB 445/L.

### 475 Seminar (3)

Presentation of reports, discussions, lectures, and papers on selected topic(s) in biology.

**479 Blood Banking (3)**

The course is designed to explore the science of blood banking or “immunohematology”. Foundational concepts of immunohematology are presented in a wide variety of procedures including donor selection, component preparation and use, as well as lab techniques designed to detect antigen/antibody reactions that may adversely affect a patient receiving a transfusion.

**480-485-490 Clinical Experience – Medical Technology (1-6)**

Clinical Experience with students’ first exposure to the clinical environment. Prerequisites: Completion of didactic portion of the medical technology specialization.

**482 Clinical Exp. I Nuclear Medicine Technology**

Twelve-month period of academic and clinical training in a school of nuclear medicine technology approved by the Council of Medical Education of the American Medical Association.

**484 Clinical Experience I – Histotechnology (2-6)**

Clinical Experience with students’ first exposure to the clinical environment. Prerequisite: Completion of didactic portion of the histotechnology specialization.

**489 Clinical Experience II – Histotechnology (2-6)**

Continuation of clinical experience with emphasis on achieving entry-level competencies for histotechnologists. Prerequisite: CLB 484.

**492 Clinical Exp. I Nuclear Medicine Technology**

Twelve-month period of academic and clinical training in a school of nuclear medicine technology approved by the Council of Medical Education of the American Medical Association.

## CARDIOVASCULAR PERFUSION, B.S.

Cynthia Cervantes, MHSA, CCP, Director

Cardiovascular Perfusion is one of the newest and most challenging professions in healthcare today.

The Cardiovascular Perfusionist is a highly skilled, allied health professional educated specifically as a member of the open-heart surgical team. Perfusionists are responsible for the selection, set-up and operation of a mechanical pump commonly referred to as the heart-lung machine. Although the perfusionist’s primary role remains in Cardiovascular Surgery, additional scope of practice includes blood conservation, long-term support for respiratory failure, isolated limb perfusion for the treatment of malignant tumors, transplantation for heart, liver, and lung, and artificial circulatory assist devices. While operating

the heart-lung machine, additional responsibilities include hemostasis management, blood gas analysis and myocardial protection.

Cardiovascular Perfusionists have evolved from performing as technicians to being recognized and well respected allied health professionals with extensive education in theory and practice. As professionals, perfusionists apply their extensive knowledge of cardiopulmonary anatomy, physiology and pharmacology with cutting-edge technology in a dynamic medical setting.

The curriculum of the Cardiovascular Perfusion Program is supported by the belief that society and the healthcare field are ever-changing. In congruence with the mission of Barry University and the College of Health Sciences, the Cardiovascular Perfusion Program aims to provide a quality education that integrates experiential and service learning. A commitment to life-long learning is encouraged amidst an atmosphere that fosters ethical and social responsibility, scholarly research and respect for human dignity.

Acceptance to Barry University does not automatically guarantee acceptance to the Cardiovascular Perfusion Program Specialization. Please contact the Division of Enrollment Services for more information about application procedures for prospective Barry University students.

## PROGRAM OVERVIEW

Barry University has designed the Cardiovascular Perfusion Program to span four years with the final year consisting of 3 consecutive clinical semesters, including a summer session. Following the first two years of coursework in the Health Professions Foundation, students begin specialization courses in the cardiovascular perfusion discipline. Specialization coursework includes theoretical principles of perfusion accompanied by simulation, laboratory work and hands-on clinical experiences. Upon graduation, the student will be awarded a Bachelor of Science degree in Cardiovascular Perfusion.

Clinical practicum experiences are full time and span three continuous (no semester breaks) semesters in the final year. Clinical practicum requires on call experiences with a clinical instructor. Clinical experiences will consist of adult and pediatric rotations at clinical affiliates. Relocation may be necessary during the clinical practicum rotations. Students are responsible for their own housing, transportation, and living expenses throughout the program. Students will be required to be within 30 minutes of the hospital when on-call.

A prospective student should assess his/her capacity and suitability for becoming a Cardiovascular Perfusionist. This program is a highly intense 4-year

program requiring both personal and financial sacrifices. The program demands a high degree of integrity, self-sufficiency, motivation, discipline and time management skills.

## GOALS OF THE CURRICULUM

Upon successful completion of the program, all graduates will be able to:

1. Create a clinical environment that reduces risk and promotes safety for patients and practitioners. (Patient Safety)
2. Utilize data from an individual's health assessment to provide comprehensive care utilizing appropriate knowledge and skill for patients of all ages and conditions. (Perfusion Management)
3. Synthesize and apply knowledge, experiences, and the best available evidence as the basis for the delivery of perfusion care. (Critical Thinking)
4. Collaborate and communicate with others using verbal, written, and technological skills inherent to health care and the practice of perfusion. (Communication)
5. Engage in a professional practice that adheres to the concepts of integrity, ethics, life-long learning and patient advocacy. (Professionalism)

## OBJECTIVES OF THE CARDIOVASCULAR PERFUSION PROGRAM

The objectives for the Program correlate with the five (5) domains essential to the practice of perfusion:

1. Patient Safety
2. Perfusion Management
3. Critical Thinking
4. Communication
5. Professionalism

Upon completion of the didactic and clinical components of the Program, the graduate shall have acquired knowledge, skills and competence in these domains, as evidenced by the ability to:

1. Create and employ strategies that protect the patient from harm, promote a safe environment for the patient and support practitioner wellness (Patient Safety).
2. Perform a complete and accurate pre-perfusion evaluation utilizing all available data (Perfusion Management, Critical Thinking).
3. Formulate a comprehensive perfusion care plan and consulting with other practitioners as required (Perfusion Management, Critical Thinking).
4. Integrate current perfusion knowledge and sound clinical judgment in practice of perfusion

for a diverse population regardless of age or condition (Perfusion Management, Critical Thinking).

5. Forecast, recognize and manage actual and/or potential pre-, intra- and post-operative perfusion related complications (Patient Safety, Perfusion Management, Critical Thinking).
6. Demonstrate proficiency in the advanced technical skills required for the contemporary practice of perfusion (Perfusion Management).
7. Function as a leader and a resource person in perfusion and perfusion related topics (Critical Thinking, Communication, and Professionalism).
8. Engage in the full scope of practice of a certified clinical perfusionist, accepting responsibility and accountability for personal and professional behaviors (Professionalism).
9. Demonstrate cultural competence by integrating an understanding of universal and singular human experiences in the clinical practice of perfusion (Critical Thinking, Communication, and Professionalism).
10. Demonstrate leadership in the perfusion community through commitment and active involvement in local, state, and national professional organizations (Professionalism).
11. Demonstrate technology skills to enhance overall lifelong learning through literature and web searches related to health care and perfusion (Communication and Professionalism).
12. Present research and scholarly work to the community of peers (Critical Thinking, Communication and Professionalism).
13. Demonstrate competence in Basic Life Support (BLS) through certification (Safety, Perfusion Management, and Critical Thinking).
14. Actively seek opportunities to improve health and perfusion care locally and globally through the use of quality improvement and error reduction activities across disciplines (Safety, Perfusion Management, Critical Thinking, Communication and Professionalism).

## HEALTH PROFESSIONS FOUNDATION COURSES

The Health Professions Foundation includes coursework in biology, chemistry, math, computer science, and physics, as well as general distribution requirements. These requirements must be met before progression to the Cardiovascular Perfusion (CVP) Program Specialization coursework. Acceptance is dependent upon the satisfactory completion of the Foundation courses with a GPA overall of 2.5 (grading based on a 4.0 scale) and a grade of B or higher in

all science-related courses with allowance for only 1 repeat of each core science course.

Prior to year three, an open heart observation and 3 letters of recommendation will be required. After a review of academic performance and an interview with the Admission's Committee of CVP, suitability for progression into the Cardiovascular Perfusion Specialization coursework will be determined.

## Health Professions Foundation Core Coursework

		Credits
MAT 109	Precalculus Mathematics 1	3
CS 180	Introduction to Computers	3
BIO 220/220 Lab	Introductory Human Anatomy and Lab	3,1
BIO 240/240 Lab	Introductory Human Physiology and Lab	3,1
CHE 152	Introduction to Organic and Biological Chemistry	3
CHE 111/111 Lab	General Chemistry and Qualitative Analysis 1 and Lab	3,1
CHE 112/112 Lab	General Chemistry and Qualitative Analysis 2 and Lab	3,1
PHY 151/151 Lab	Introductory Physics	3,1

**\*\* General distribution courses as required; selected from the approved list of courses.**

Theology and Philosophy	9 credits
Written and Oral communication	9 credits
Social and Behavioral Science	9 credits
Humanities and Arts	9 credits

## ADMISSIONS REQUIREMENTS

Applicants are accepted on an ongoing basis. Incoming freshman seeking admission to the Health Professions Foundations coursework must submit a completed application for undergraduate study and provide official transcripts from high schools attended.

Below are minimum scores required for incoming freshman for admission to the Health Professions Foundation coursework.

SAT 1100 (minimum Math 600 and Verbal 490)

ACT Composite variable (minimum Math 26 and English 22)

H.S. GPA of 3.0 or above (inclusive of dual enrollment courses)

*Must have a "B" or better in biology, chemistry and Algebra II*

\*\*Placement Tests students **must** score high enough to enter directly into ENG 111 or above and MAT 109 or above.

Transfer Students and/or second degree earners seeking admission to the Cardiovascular Perfusion specialization options must submit a completed application through the Division of Enrollment

Services providing official transcripts from Institutions attended. Additional requirements include: submitting a personal statement, three letters of recommendation and an open heart observation. After a review of academic performance and an interview with the Admission's Committee of CVP, suitability for progression into the Cardiovascular Perfusion Specialization coursework will be determined. Transfer students are admitted to the program only once a year in the fall and enrollment is limited. To be considered for admission into the Cardiovascular Perfusion Specialization as a transfer or second degree earner, you **MUST** have completed the Health Professions Foundation coursework and the required general distribution coursework. Completion of the admission file is the sole responsibility of the applicant.

Candidates are selected for admission on the basis of high promise for program completion and academic success. Admission to the program is on a competitive basis for a limited number of positions. As a result, applicants may meet minimum admission requirements, but may not be selected for a personal interview or admission. At the time of interview, applicants must be prepared to affirm that they have sufficient financial resources and/or planning appropriate to complete the program of study without reliance on outside employment. Applicants are advised to contact the office of Financial Aid to investigate funding options at the time they are considering submission of their application package.

## International Students

International students who have completed all or part of their college coursework outside of the United States at an internationally listed institution must submit their transcripts to an official international transcript evaluation service. Information about professional evaluating services in the United States is available from the Division of Enrollment Services. Official transcripts and the international credit evaluation must be submitted to Barry University for admission and evaluation purposes.

Students are also required to obtain a score of at least 550 (213 on the computer-based test) on the Test of English as a Foreign Language (TOEFL). Official test results must be submitted to the Division of Enrollment Services, Barry University.

## Core-Performance Standards for Admission, Progression and Graduation

### Vision

- Read charts, labels, graphs, discriminate colors and record results

**Speech and Hearing**

- Communicate effectively using standard English and assess non-verbal information

**Fine Motor Skills**

- Skills necessary to operate complex machinery

**Psychological Skills**

- Possess the emotional health required to utilize full intellectual abilities
- Recognize emergency situations and take appropriate actions

All applicants must affirm and attest to sound physical health, emotional stability, and personal integrity that will enable them to successfully complete the educational program and to comply with criteria for the American Board of Cardiovascular Perfusion certification and adherence to the American Society of Extracorporeal Technology professional codes of conduct and practice.

Upon the start of the program, accepted candidates are required to possess a notebook computer with specified software which conforms to criteria established by the Program. Applicants are advised that portions of the didactic coursework are web-based and also provided in conjunction with telecommunications or video teleconferencing instruction. Candidates should possess basic computer literacy skills, including the use of word-processing, Windows operating systems, electronic mail, and navigation of Internet applications.

**ADDITIONAL PROGRAM REQUIREMENTS**

In order to be awarded a Bachelor of Science degree, students must:

1. Satisfactorily complete all program coursework and clinical rotations;
2. Maintain a minimum C average for all courses, and an overall GPA of 2.5;
3. Perform a minimum of 75 satisfactory adult clinical bypass procedures and perform or observe a minimum of 10 pediatric clinical bypass procedures;
4. Maintain a student membership in the American Society of Extra-Corporeal Technology (AmSECT) and the Florida Perfusion Society (FPS);
5. Satisfactorily complete a final written and clinical simulation examination;
6. Have a current certification in Basic Life Support;
7. Proof of medical insurance and a physical examination must be presented prior to matriculation;
8. Proof of current immunizations to include Annual TB Screening (PPD), Diphtheria

Inoculation Tetanus (DTP) within last 10 years, Measles, Mumps and Rubella (MMRx2), and Hepatitis B vaccination series, Trivalent Oral Polio Vaccine (TOPV), Varicella, and a Flu shot must be presented before the student will be allowed to progress to the clinical rotations.

9. Affirm and attest that they are free of addiction to substances of abuse and are willing to adhere to Drug Free Workplace policies and procedures of affiliate clinical training sites, to include submission to randomized drug testing and/or testing for cause and upon program demand.

***Important Notice:** Participation in clinical experiences, rotations or fieldwork is a required part of the curriculum and a requirement for graduation. Clinical rotation and fieldwork sites require a drug, criminal, and/or child abuse background check in order to permit participation in the program's clinical experience, rotation or fieldwork. Clinical rotation and fieldwork sites may deny a student's participation in the clinical experience, rotation or fieldwork because of a felony or misdemeanor conviction, failure of a required drug test, or inability to produce an appropriate health clearance, which would result in delayed graduation or inability to graduate from the program. Individuals who have been arrested and/or convicted of a felony or misdemeanor may be denied certification or licensure as a health care professional. Information regarding individual eligibility may be obtained from the appropriate credentialing bodies. Drug and background checks with electronic fingerprinting will be done at the student's expense.*

**Cardiovascular Perfusion Specialization  
Required coursework**

**Fall Semester – Third Year**

CVP 340	Basic Surgery & Monitoring	2
CVP 350	Perfusion Technology I	3
CVP 360	Perfusion Devices & Lab I	1
CVP 310	Cardiac Anatomy & Physiology	3
CVP 430	Physiological Management of Bypass	2
PHI 353	Biomedical Ethics	3
	<b>Total Credits</b>	<b>14</b>

**Spring Semester – Third Year**

CVP 440	Cardiovascular Pathology	3
CVP 400	Cardiovascular Pharmacology	3
CVP 450	Perfusion Technology II	3
CVP 460	Perfusion Devices & Lab II	1
CVP 420	Cardiology	2
CVP 410	Research Methodology	1
Theology Course – If Applicable		3
	<b>Total Credits</b>	<b>16</b>

**Summer Semester – Third Year**

CVP 470 Clinical Practicum I 12

**Fall Semester – Fourth Year**

CVP 475 Clinical Practicum II 12

**Spring Semester – Fourth Year**

CVP 480 Clinical Practicum III 12

**Total Required Credits For Graduation 131**

The Cardiovascular Perfusion Program at Barry University is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Accreditation Committee-Perfusion Education (<http://ac-pe.org/wordpress>). Upon successful completion of all program requirements, each graduate will be eligible to enter the perfusion certification process with the American Board of Cardiovascular Perfusion (ABCP).

**PROGRAM PROGRESSION AND DISMISSAL**

**Didactic** – Students must maintain a grade point average (GPA) of 2.5 or above to advance in the program. All major and non-major courses taken will count toward the overall GPA. Each didactic course must be passed with, at least, the minimally acceptable grade of C or higher as well as satisfactory completion of all the required course components. Students will not be able to enroll in Clinical Practicum I until all Health Professions Foundations and Cardiovascular Perfusion specialization courses have been successfully completed with a grade of C or higher and an overall GPA of 2.5. Students failing a course will not be granted automatic readmission and will need to petition for re-admittance in the fall of the following year. Readmission is not guaranteed. Students returning because of academic dismissal must start from the beginning of the program and retake all program specific courses. If failure occurs a second time, this will result in automatic termination from the program without the possibility of re-enrolling.

**Clinical** – Students are expected to demonstrate achievement and progression of clinical skills while demonstrating patient safety at all times. Failure to demonstrate competency and safety is grounds for immediate dismissal from the program. Students dismissed from the clinical portion of the program are not eligible to return. Additional information is provided in the Clinical Handbook.

## **COURSE DESCRIPTIONS FOR CARDIOVASCULAR PERFUSION SPECIALIZATION COURSES — Cardiovascular Perfusion Prefix: CVP**

**310 Cardiac Anatomy and Physiology (3)**

A study of the structure and mechanisms by which the cardiovascular system functions in relationship to other organ systems. Prerequisite: Program Admission.

**340 Basic Surgery and Monitoring (2)**

An exposure to sterile and aseptic techniques, interrelationships among personnel and surgical techniques within the operating room relating to perfusion. Prerequisite: Program Admission.

**350 Perfusion Technology I (3)**

An introduction to the various components that comprise the software and hardware of the perfusion circuit and techniques in their utilization. Prerequisite: Program Admission.

**360 Perfusion Devices and Lab I (1)**

An extensive hands-on experience in the perfusion wet-lab. Students learn and demonstrate proper circuit assembly utilizing a roller pump with a basic knowledge of the mechanics. Prerequisite: Program Admission.

**400 Cardiovascular Pharmacology (3)**

A study of different pharmacological interventions utilized for cardiovascular patients. The student will learn the actions and effects of specific classes of drugs, both singularly and in combination with emphasis being placed on the interactions of these drugs, as well as their relevance in the clinical setting, particularly as they apply to the cardiovascular, respiratory, and renal systems. Prerequisites: CVP 310, 340, and 350.

**410 Research Methodology (1)**

A web based course on the applications of how to interpret, write, and present scientific data pertinent to perfusion. The student will present a literature review utilizing the tools of experimental design and statistics; presenting their findings through written and oral communication. Prerequisites: CVP 350 and 360.

**420 Cardiology (2)**

A study of the structure, function, and disorders of the heart. The student will learn cardiac diagnosis utilizing invasive and non-invasive techniques including electrocardiograms (EKG's), echocardiology, electrophysiology, and cardiac catheterization, and the subsequent interventions. Prerequisites: CVP 310 and 340.

**430 Physiological Management of Bypass (2)**

A study to understand the physiological changes occurring during cardiopulmonary bypass and appropriate evaluation for correction while maintaining patient safety. Prerequisite: Program Admission.

**440 Cardiovascular Pathology (3)**

A study of the pathological changes that affect the cardiovascular system including the dynamic aspects of diseases, pathophysiological mechanisms involved, and associated signs and symptoms. Special attention is given to the study of cardiac congenital malformations. Additionally, all available diagnostic techniques and current treatments (medical and surgical) are studied. Prerequisite: CVP 310.

**450 Perfusion Technology II (3)**

An emphasis on the numerous long-term support technologies that are utilized separately or in conjunction with the heart-lung machine and additional ancillary equipment utilized for patient evaluation and support. Prerequisite: CVP 350.

**460 Perfusion Devices and Lab II (1)**

An emphasis on set-up and priming of different pump systems utilizing centrifugal pumps and ancillary perfusion techniques. Prerequisite: CVP 360.

**470 Clinical Practicum I (12)**

This course is the initial clinical exposure to the open heart environment where the student will receive one on one instruction from a designated clinical instructor and begin the foundation for clinical consistency and competence. Prerequisites: CVP 400, 410, 420, 440, 450, 460.

**475 Clinical Practicum II (12)**

This course is the intermediate clinical exposure to the open heart environment where the student will continue to receive one on one instruction with a clinical instructor and further develop an expected level of consistency and competence while mastering perfusion techniques relating to a variety of patient populations and scenarios. Prerequisite: CVP 470.

**480 Clinical Practicum III (12)**

This course is the final clinical exposure to the open heart environment where the student will be expected to demonstrate a high level of consistency and proficiency in the conduct of cardiopulmonary bypass with respect to a variety of patient populations, perfusion scenarios and adjunctive techniques. The clinical instructor will continue to monitor the student but strive to maintain an advisory role to promote further the student's confidence and independence. Prerequisite: CVP 475.

**OCCUPATIONAL THERAPY**

Belkis Landa-Gonzalez, Ed.D., Director

The Occupational Therapy Program at Barry University has prepared students for careers as occupational therapists since 1989. Because the program is designed for working adults, occupational therapy courses are scheduled on weekends.

In 1999, the American Occupational Therapy Association voted to move the education of occupational therapists to the graduate level. The last undergraduate students were admitted to Barry's Occupational Therapy Program in 1999; students are no longer admitted at the undergraduate level.

Barry University currently offers a weekend program leading to the Master of Science in Occupational Therapy. Information about program requirements and application procedures is included in the current Graduate Catalog.

A bachelor's degree is required for admission to the M.S. program. If you are interested in the Occupational Therapy Program, but have not yet completed a bachelor's degree, you may wish to contact the Director about choosing undergraduate courses which will support your application to the professional curriculum. Evening courses leading to baccalaureate degrees are offered through Barry University's School of Professional and Career Education (PACE).

# COLLEGE OF HEALTH SCIENCES

## Division of Nursing

John McFadden, Ph.D., R.N., Dean and Chair

Karen Miles, Ed.D., R.N., Program Director, Undergraduate Nursing Education

Faculty: Carr, Colvin, Delpech, Hackett, Hershorin, Jaffe, Lamet, Lavandera, Marshall, McGregor, Milne, Owen, Peoples, Rafalko, Rice, Schwal, Shaw, Subramoney

### Philosophy

This philosophy describes the beliefs of the nursing faculty of Barry University about person, society, health, illness, and professional nursing. The philosophy evolves from the University mission which is congruent with the College of Health Sciences (CHS) philosophy and supports the purpose of the Division of Nursing (DON).

The faculty believes that all humans are unique beings who have intrinsic value endowed in them by their Creator. Humans manifest a mind-body-spirit unity which encourages creativity, harmony, and health. The essence of human unity is the individual's culture, spiritual experience, environment, and changing life circumstances. We respect diversity, multiple realities, and individual choices of all persons. We place value on the life of all human beings within the context of family, community, and society.

Society is the dynamic and constructed setting within which all persons exist and interact. Nursing occurs in the framework of a global society valuing cultural, social, and intellectual diversity. Professional nursing carries with it the social responsibility to shape and transform the environment, to improve health and eliminate healthcare disparities for all people. Within society, each defined community provides a unique, multidimensional context for learning.

The faculty believe that health is the balance of mind-body-spirit which is interpreted and expressed in individuals and groups. The experience of illness is an alteration in the harmony of the mind-body-spirit. Health and illness are not considered dichotomous experiences; both are human experiences occurring simultaneously. Understanding simultaneity is

fundamental to the diagnosis and treatment of human experiences and responses.

Focusing in a holistic manner across the life span, professional nursing roles involve evidence based practices that are preventative, restorative, and promotive. Evolving professional roles are acknowledged and fostered.

The knowledge base for professional nursing practice is derived from the liberal arts, nursing science, and related professional studies. Professional nursing education facilitates the socialization process, the development of values and professional behavior, and the social construction of policies which affect health at local, national, and international levels. The faculty believes that the baccalaureate degree in nursing is the entry level for professional nursing practice. Nursing education at the master's level is the minimal preparation for advanced nursing practice. Doctoral nursing education prepares nurses as clinicians, educators, leaders, researchers, scholars, and visionaries.

Nursing scholarship advances the knowledge base of the discipline by promoting inquiry, generating and utilizing research, and selecting theoretical knowledge that is compatible with our professional values and practices. Inquiry is paramount to competence in professional practice and lifelong learning. The unique focal area of our inquiry is multicultural health.

The curricula of the nursing programs are transformational and based on the belief that society and nursing are ever-changing. This attention to nursing's influence on communities and society supports our focal area of multicultural health by providing opportunities for scholarship, research, teaching, and community service. The curricula promote and

facilitate analytical reasoning, critical thinking, evidence based practice, and the ability to construct knowledge.

The philosophy of the Division of Nursing articulates with the philosophy of the CHS and the University mission through the major characteristics of knowledge and truth, religious dimension, collaborative service, social justice and an inclusive community which celebrates the diversity of students, staff, faculty, and community. The nursing faculty embrace Barry University's international dimension, respect for human dignity, Dominican spirit of scholarship and service and commitment to a nurturing environment, social responsibility and leadership.

## Purpose

The Bachelor of Science in Nursing (BSN) program consists of the Traditional, Accelerated and RN to BSN options. The undergraduate program is based on a Judeo-Christian heritage and humanistic framework which seeks to lay a foundation for safe, compassionate and multicultural sensitive professional practice. The undergraduate program prepares beginning practitioners of professional nursing to provide health care in a variety of settings.

## Curriculum

The nursing faculty has developed a contemporary curriculum designed to prepare nursing students for professional nursing practice in the new millennium. This program is grounded in Community Focused Education (CFE) which requires ongoing partnerships among students, faculty and community members. In community focused education, each defined community is a unique, multidimensional context for learning. Educational opportunities provide a variety of healthcare delivery experiences that are determined by the needs and resources of both the community and the nursing program. The undergraduate curriculum in the Division of Nursing is based on six integrating concepts. These concepts evolve from beliefs about human beings and their environment; the American Nurses Association definition of nursing as a profession; and from the intellectual disciplines of natural and social sciences, psychology, education, administration, and the humanities. The six integrating concepts which comprise the practice of nursing and upon which the undergraduate curriculum is based include clinical reasoning, diversity, professionalism, leadership, evidence-based practice, and communication/collaboration.

## Outcomes

In accordance with *The Essentials of Baccalaureate Education for Professional Nursing Practice* of the American Association of Colleges of Nursing (2008), the faculty identified the following outcomes expected of each student at the end of the baccalaureate program in nursing:

1. Assimilate knowledge, skills, and values from the arts and sciences to provide humanistic, safe, quality care as a nurse generalist.
2. Utilize clinical reasoning to formulate decisions regarding safe, quality healthcare outcomes.
3. Integrate evidence based practice to provide safe, compassionate and holistic patient/family centered care in diverse settings.
4. Communicate effectively with all members of the health care team, including patients and their support systems.
5. Integrate health promotion, disease and injury prevention strategies in the care of individuals, families and communities.
6. Apply leadership concepts, skills, and decision making in the provision of high quality nursing care.
7. Demonstrate proficiency in using patient care technologies, information systems and communication devices to support safe nursing practice.
8. Evaluate the impact of political, legal, and ethical factors on the health of individuals, families and communities from a global perspective.
9. Integrate professional standards of moral, ethical and legal conduct into nursing practice.

## Accreditation

The UG nursing program is approved by the Florida Board of Nursing (FBON) since 1953. The FBON may be contacted at 4080 Woodcock Drive, Suite 202, Jacksonville, FL 32207. The UG program was initially accredited by the National League for Nursing (NLN) in December, 1962, and is presently accredited by the Commission on Collegiate Nursing Education (CCNE). Accreditation is an indication of public approbation, attesting to the quality of the educational program and the continued commitment of the sponsoring institution to support the program. For further information about the accreditation of the UG nursing program, please contact the Commission on Collegiate Nursing Education, One Dupont Circle, NW, Suite 530, Washington, DC 20036-1120, and (202) 887-6791.

## Programs & Options

### Pre-Nursing Program:

The pre-nursing curriculum consists of the first two-years of general education, prerequisites and supporting courses needed for a baccalaureate degree in nursing at Barry University. However, students can complete the requirements, listed below within a shorter period of time by taking selected courses in the summer (see pre-nursing program requirements below).

Freshmen and transfer students not meeting the requirements for admission to the BSN program may apply to be admitted to the pre-nursing program.

Admission requirements for the pre-nursing program include:

1. **Freshman** – High school GPA of 2.5 or higher; completion of high school or college courses in biology and chemistry (including laboratories) with a minimum grade of C in each; completion of Algebra II or equivalent, with a minimum grade of C; and, achievement of a minimum score of 800 on the SAT or 17 on the ACT.
2. **Transfer students with credits outstanding and a GPA of at least 3.0.** – Achievement of a minimum of 3.0 cumulative college GPA with fewer than a total of 5 Ws, Ds, or Fs; earned at least a C in each of the required science courses taken (Anatomy & Lab, Physiology & Lab, Microbiology & Lab, Biochemistry & Lab) without repeats, including withdrawals; and, earned at least a C in all liberal arts courses.
3. **Please note:** To be considered for admission to the BSN program a GPA of 3.2 is required.

All pre-nursing students who have paid the enrollment deposit are advised by the Division of Nursing. **Completion of the pre-nursing program requirements does not guarantee admission to the nursing program.**

### Bachelor of Science in Nursing Program:

The baccalaureate degree in nursing may be earned through the following options:

#### Traditional Option

Students in the two years Traditional BSN Option enter a contemporary curriculum that is designed to prepare them for professional nursing practice. This program is grounded in Community Based Education with educational opportunities that provide a variety of healthcare delivery experiences. The Baptist Health South Florida Health System has a collaborative agreement with the Division of Nursing to offer a selective number of Traditional Option BSN students, admitted for Fall semester, the opportunity to apply

and be interviewed for acceptance into the Baptist Bond Option. Upon acceptance into this option, Baptist Health South Florida pays half of the student's tuition in return for a 3-year employment commitment upon graduation.

#### Accelerated Option

The Accelerated Option (AO) is designed for students who have a bachelor's or higher degree in a field other than nursing. The AO student may earn prerequisite course credit through CLEP, transfer, correspondence, or by challenging or enrolling in courses at Barry University. All nursing courses are taken full time at Barry during four 15-week terms beginning in January and ending the following May.

Because time in class or clinical approximates 40 hours per week, it is not advised for an AO student to work during the year of enrollment in nursing courses. Advance preparation should be made for financing during that year. Some financial aid and loans are available, and students are encouraged to seek assistance from the Financial Aid Office. The cost for tuition and fees for the nursing credits equals that for four full-time semesters. Books, uniforms, and other requirements will be additional costs.

#### RN to BSN Option

Graduates of state-approved diploma and associate degree programs in nursing are eligible to apply for admission to the baccalaureate program in the Registered Nurse Option. The program is designed to be flexible and responsive to individual students' needs as possible within the constraints of curriculum, university and accreditation requirements. The program is designed to be 15-months (four semesters) long, but the time in the program may vary dependent upon the option chosen, amount of acceptable transfer credit; success in completion of CLEP, proficiency, and nursing examinations; and part-time or full-time status.

Requirements of the program can be met through CLEP, nursing mobility and achievement examinations or their equivalents, proficiency examinations, transfer, correspondence courses, or by enrolling in courses at Barry University. To be accepted in transfer, credit must have been completed with at least a grade of C at a regionally accredited college or university. Please refer to the transfer credit policies in this catalog for complete information.

R.N. students may receive credit for a course at Barry University by passing a proficiency exam. The following proficiency exams are available through the Division of Nursing: CHE 152 Biochemistry; BIO 220 Human Anatomy; BIO 240 Physiology; and BIO 253 Microbiology.

These examinations are taken for "CREDIT/NO CREDIT." Proficiency exams may not be repeated and there is a fee assessed for each credit awarded.

## Nursing Credit By Examination

Registered nurses who are graduates of approved accredited associate degree programs will be awarded 32 credits towards their bachelor's degree after successfully completing 21 credits of nursing courses at Barry University and submission of a portfolio. There is a fee assessed for each credit awarded. RNs who are graduates of a diploma program may earn 32 nursing credits by successfully completing proficiency exams through Excelsior College. These exams can be taken at any time before enrolling in the first nursing course.

There is a fee assessed for each credit awarded. For further information about these examinations, students should contact their initial academic advisor.

## R.N./B.S./B.A. to M.S.N. BRIDGE OPTION

Registered nurses with bachelor's degrees in other fields, who have a GPA of 3.0 or higher, may apply directly for admission to the Master's Program in Nursing. See the graduate catalog for complete information.

## BACHELOR OF SCIENCE IN NURSING (BSN) ADMISSION REQUIREMENTS

To be considered for acceptance to the Traditional, Accelerated and RN to BSN options, the following are required:

### Traditional, Accelerated & RN to BSN Options

Requirements	Traditional Option (2-years)	Accelerated Option (15-months)	RN to BSN Option
GPA	3.2	3.2	2.5
Liberal Arts Outstanding	None (0)	None (0)	Nine credits (9)
Liberal Arts Grades	C or greater	C or greater	C or greater
Science Grades (must be completed before admission to the program)	C or greater, no repeats	C or greater, no repeats	C or greater
DIN271–Therapeutic Nutrition, PSY382–Developmental Psychology, MAT152–Probability & Statistics	C or greater, one (1) repeat	C or greater, one (1) repeat	C or greater
Letter of Recommendation from college/university Professors	Two (2)	Two (2)	N/A
Interview	Possible	Possible	Possible
FL RN License	N/A	N/A	Required

**Note:** A License Practical Nurse (LPN) applicant must meet the above requirements applicable to them as well as having:

- (1) At least an 80% average in practical nursing coursework; and,
- (2) A current Florida L.P.N. license or proof of eligibility to sit for the NCLEX-PN.

Applicants are notified in writing of the admission decision after all application materials have been received and evaluated. Applicants must provide two (2) letters of recommendations from prior and/or present college/university faculty. The letters must be on college/university letterhead and mailed directly to Barry University Division of Nursing, **ATTN:** UG Admission Advisor, 11300 NE 2<sup>nd</sup> Ave, Miami Shores, FL, 22161. An interview may be required before acceptance to any of the nursing programs.

**Please note that meeting the admission requirements does not guarantee admission to the nursing**

**programs. Also, due to a high demand for and the competitive nature of the nursing programs, the applicant may be accepted, but placed on a waiting list to begin the program.**

## Core Performance Standards

The faculty, having accepted that nursing is a practice discipline with cognitive, sensory, affective and psychomotor requirements, has adapted a list of "Core Performance Standards" based on a document of the Southern Council on Collegiate Education for Nursing.

### **Core Performance Standards for Admission, Progression, and Graduation**

<b>Performance</b>	<b>Standard</b>	<b>Examples of Necessary Activities</b> (Not all inclusive)
Critical Thinking	Critical thinking ability sufficient for clinical judgment	Identify cause-effect relationships in critical situations, develop nursing care plans.
Interpersonal	Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural, and intellectual backgrounds	Establish rapport with patients/clients and colleagues.
Communication	Communication abilities sufficient for interaction with others in oral and written form	Explain treatment procedures, initiate health teaching, document and interpret nursing actions and patient/client responses. Give oral and written reports to other members of the health care team.
Mobility	Physical abilities sufficient to move from room to room and maneuver in small spaces	Move around in patient rooms, work spaces, and treatment areas, administer cardiopulmonary resuscitation procedures. Meet responsibilities in a timely manner.
Motor Skills	Gross and fine motor abilities sufficient to provide safe and effective nursing care	Calibrate and use equipment; safely position, lift, and transfer patients/clients.
Hearing	Auditory ability sufficient to monitor and assess health needs	Hear monitor alarm, emergency signals, auscultatory sounds, cries for help.
Visual	Visual ability sufficient for observation and assessment necessary in nursing care	Observe patient/client responses at a distance and close at hand. Comprehend three-dimensional relationships and spatial relationships of objects.
Tactile	Tactile ability sufficient for physical assessment	Perform palpation, auscultation, percussion and functions of physical examination and/or those related to therapeutic intervention.
Social Behavior	Compassion, integrity, interpersonal skills, interest and motivation	Develop a mature, sensitive and effective relationship with clients.

## Background Check and Drug Screening

Clinical agencies require students to be fingerprinted, pass drug screening and background checks, and clear the HHS/OIG list of excluded individuals and the GSA list of parties excluded from federal programs. Compliance with this requirement and satisfactory findings are essential for clinical placement and progression. Students who fail to submit to a background check or students whose background checks indicate a conviction as specified in Florida Statutes, Title XXXI, Labor Chapter 435 Employment Screening (level 2), which can be found at <http://www.leg.state.fl.us/Statutes/index.cfm?Appmode=DisplayStatute&URL=Ch0435/ch0435.htm> or have a positive drug screen will be unable to enroll in or remain in the nursing program. To complete the background and drug screen requirements click on the Background Checks box in the left column of this page, and the link to American Databank will appear. This link will allow you to begin the application process and set up a method of payment to American Databank, the sole company handling the Division of Nursing's screenings. **Please note there will be a fee of \$142 for the background check and drug screening.** When placing your background check order, click "I want to receive a copy of my background check and drug screening." This will enable you to have a copy of the reports that we receive. It should be kept in your portfolio in the event a clinical agency requests to see it. Once American Data Bank receives payment, they will send you the necessary information and forms to get your drug/background check processed.

Clinical rotation and fieldwork sites may deny a student's participation in the clinical experience, rotation or fieldwork because of a felony or misdemeanor conviction, failure of a required drug test, or inability to produce an appropriate health clearance, which would result in delayed graduation or in the inability to graduate from the program. Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding individual eligibility may be obtained from the appropriate credentialing bodies. Drug and background checks will be conducted at the student's expense.

The cost of background checks, fingerprinting, and drug screening is the responsibility of the student. These requirements must be completed no later than July 1st. Students beginning the undergraduate Accelerated Option program in January must have this completed no later than December 15th of the year prior to their enrollment in nursing courses.

## Health & Insurance Requirements

Submission of evidence of health status acceptable for the practice of nursing (which include an annual physical, up-to-date immunization status which includes a yearly flu vaccination and tuberculosis [TB] screening); health insurance (see Health Insurance Section of this Catalog); and, liability insurance. The liability insurance fee will be charged to all nursing students; however students who provide proof of comparable liability insurance coverage to the Business Office within 30 days of billing will have their account credited for the premium. Some clinical agencies may have additional requirements that students must meet. **Students (traditional, accelerated and RN-BSN) not meeting these requirements will not be eligible for admission to the program; and, students already admitted to the program will not be able to continue in the program.**

## Basic Life Support

All BSN students must complete their Basic Life Support (BLS) requirement at Barry University, Division of Nursing prior to the beginning of classes.

## Transportation

Students are responsible for providing their own transportation to and from all health agencies and other selected experiences such as home visits to patients, parents and families and clinical experiences in hospitals.

## Computer Requirements

All entry level BSN students are required to have a laptop computer which meets the following system requirements:

PC:

- Windows 2000 or XP
- Pentium 750 MHz (1 GHz or higher recommended)
- 128 MB RAM (256 MB recommended)
- Sound card and speakers or headphones
- 56k modem or faster, and reliable Internet service (DSL/Cable modem or faster recommended)
- Internet Explorer 6.0 and Internet Tools or higher or FireFox 1.5 or higher (IE recommended)
- Macromedia Flash Player 8.0 or higher (available as a free download from [www.flash.com](http://www.flash.com))
- Cookies and JavaScript must be enabled
- America Online users will need to minimize the AOL window and open Internet Explorer 6.0 or higher
- 1024 x 768 screen resolution or higher

**MAC:**

- Macintosh OS 10.2 or higher
- 128 MB RAM (256 MB recommended)
- G4 processor (1 GHz or better)
- Sound card and speakers or headphones
- 56k modem or faster, and reliable Internet service (DSL/Cable modem or faster recommended)
- FireFox 1.5 or higher (limited support for Safari 1.0 or higher)
- Macromedia Flash Player 8.0 or higher (available as a free download from [www.flash.com](http://www.flash.com))
- Cookies and JavaScript must be enabled
- America Online users will need 5.0 or higher, and will need to minimize the AOL window and open Safari 1.0 or higher
- 1024 x 768 screen resolution or higher

MAC users sometimes report difficulty with the online program. If so – the suggestion is to not use Safari but to use Internet Explorer or FireFox.

**Progression Requirements and Standards**

**Admission to nursing does not guarantee graduation from the program.** The nursing faculty reserves the right of retaining, progressing, and graduating those students who, in its judgment, satisfy the requirements of scholarship, health, and personal suitability to practice professional nursing. (See Chart Below)

**BSN Progression Requirements**

Requirements	Traditional Option	Accelerated (15-month) Option	RN to BSN Option
GPA	2.5	2.5	2.0
Passing Grade	76% or greater	76% or greater	76% or greater
Nursing Course Repeats	One (1) repeat	One (1) repeat	One (1) repeat
Standardized Testing	Exit Examination	Exit Examination	N/A
Graduation Month	May or October	May	Variable

**BSN Progression Standards**

1. Maintain current health and compliance requirements.
2. Earn a minimum of a 76 average to pass nursing courses.
3. Earn a passing grade in the clinical portion of nursing courses.
4. One nursing course may be repeated one time.
5. A student receiving a second failure in any UG nursing course will not be permitted to continue in the nursing program.
6. Grades of D, F and WF are considered the same as a grade lower than C when repeating any undergraduate nursing course.
7. RN to BSN student may not enroll in other nursing courses until earning a C or better in repeated course.

**Kaplan Comprehensive Integrated Testing for Nursing Programs**

The Traditional and Accelerated Option programs seek to facilitate the success of its students for entry into professional clinical practice as a nurse generalist. As part of this process, the faculty utilizes the Kaplan Integrated Testing series of content specific exams, remediation programs, and final comprehensive predictor examinations to assess knowledge of concepts and readiness for the national licensure examination (NCLEX-RN). All students are required to participate in this program and the Kaplan NCLEX-RN on-line or live preparation courses for licensure testing. Detailed policies and procedures for standardized testing may be found in the Division of Nursing Undergraduate Policy and Procedure Manual. [http://student.barry.edu/files/SAC\\_UG\\_Student\\_Policy\\_and\\_Procedure\\_Manual\\_Revised\\_011810.pdf](http://student.barry.edu/files/SAC_UG_Student_Policy_and_Procedure_Manual_Revised_011810.pdf)

## GRADUATION and NCLEX-RN Testing

Students are eligible for graduation after all program requirements have been satisfactorily met and verified by the Undergraduate Program Director. After graduation students are qualified to apply for licensure by examination with a State Board of Nursing. A letter of completion and official transcript is usually sufficient evidence to apply for licensure by examination in most states. Students are advised to contact the Board of Nursing in the state they intend to take their licensure exam for detailed instructions. Official transcripts may not be available for up to two months after graduation. Faculty recommend students take the NCLEX-RN examination within a few months after graduation.

As part of the licensure application process, arrest and court records of final adjudication for any offense other than a minor traffic violation must be submitted to the Board of Nursing for review. Applications of those who have been convicted of a felony and whose civil rights have not been restored are considered to be incomplete until documentation of restoration of civil rights is received.

The Medicaid Fraud Bill passed contains provisions concerning the licensure of healthcare providers convicted of certain felonies. If a provider or applicant has a history of a conviction for any felony relating to medical fraud, non-medical fraud or controlled substances, they may not be issued a license for 15 years after their probation has ended.

Effective July 1, 2009, Title XXXII Section 456.0635, Florida Statutes, requires health care boards or the Department of Health to refuse renewal of a license, certificate or registration or admit a candidate for examination, if the applicant meets certain conditions. Florida Statutes: Title XXXII FLS 409; Title XLVI FLS 817 and FLS 893. Website for Florida Statutes [www.flsenate.gov](http://www.flsenate.gov)

The application and records should be filed at least 90 days before the examination date in case a student may be required to appear before the Board.

## Opportunities for Student Growth and Service

Among the opportunities for student activities within the DON is the *Nursing Student Association (NSA)*, which is a constituent of the Florida Nursing Student Association (FNSA) and the National Student Nurses Association (NSNA). The NSA prepares students for the assumption of professional responsibilities, promotes and encourages participation in community service and activities toward improved health care, nursing education and legislative issues. Additionally, this pre-professional organization offers

opportunities for student socialization, recognition, and scholarship. Active membership as a student is rewarded by a special one year membership in the Florida Nurses Association after graduation.

The Division of Nursing supports the *Lambda Chi Chapter of Sigma Theta Tau International*, the international honor society for nursing. The purposes of Sigma Theta Tau International are to: recognize superior academic achievement; recognize the development of leadership qualities; foster high professional standards; encourage creative work; and strengthen commitment to the ideals and purposes of the profession. Lambda Chi sponsors an annual research conference and provides other programs of professional and scholarly interest.

The **Center for Interdisciplinary Scholarship (CIS)** guides, supports, and assists with the discovery, application, integration and dissemination of scholarly work for the faculty and students of the College of Health Sciences (CHS). The Center is guided by Boyer's model of scholarship, which includes the scholarship of discovery, application, integration, and teaching. The Center provides support in the creation of scholarly activities that affect multicultural health, guide faculty and students in the design of scholarly inquiry, assist with the dissemination of scholarly work, houses scholarly resources for faculty and student use, provides support to develop skills in proposal writing and publishing, reviews IRB proposals to assist faculty and students, and supports scholarship that is created/formed by practice, community services, and/or teaching.

## NURSING PROGRAM REQUIREMENTS:

### Pre-Nursing

ORI	100	Freshman Seminar
ENG	111/210	English Composition and Research
SPE	101	Fundamentals of Speech
BIO	220	Introductory Human Anatomy (with lab)
BIO	240	Introduction to Human Physiology (with lab)
BIO	253	Introductory Microbiology (with lab)
CHE	152	Introduction to Organic and Biological Chemistry (with lab & SI)
MAT	152	Elementary Probability and Statistics
PSY	281	Introduction to Psychology
PSY	382	Developmental Psychology
SOS		Any History, Economics, Geography, Political Science
ANT/SOC		Any Anthropology, Sociology or Psychology
PHI		Philosophy Distribution
THE		Theology Distribution
HUM and ARTS		Humanities and Arts Distribution (9 cr.)
DIN	271	Nutrition in Clinical Care
CS	180	Introduction to Computers
PHI	353	Biomedical Ethics

**Prerequisite Courses for students with a previous bachelor's degree:**

BIO	220	Introductory Human Anatomy (with lab)
BIO	240	Introduction to Human Physiology (with lab)
BIO	253	Introductory Microbiology (with lab)
CHE	152	Introduction to Organic and Biological Chemistry (with lab & SI)
MAT	152	Elementary Probability & Statistics
PSY	281	Introduction to Psychology
PSY	382	Developmental Psychology
PSY/SOC/ANT	One course in either of these areas	
DIN	271	Nutrition in Clinical Care
PHI/THE	Philosophy <i>and</i> Theology courses (6 cr.)	
PHI	353	Biomedical Ethics
CS		Computer Elective

**TRADITIONAL & ACCELERATED OPTIONS**

NUR	205	Introduction to Nursing Science
NUR	313	Pathophysiology
NUR	319	Foundations for Nursing Practice
NUR	323	Health Assessment and Health Promotion
NUR	329	Pharmacology
NUR	335	Patient Centered Care: Adult/Elderly Nursing I
NUR	337	Research & Evidence Based Practice
NUR	343	Patient Centered Care: Adult/Elderly Nursing II
NUR	383	Patient Centered Care: Behavioral Health Nursing
NUR	416	Family Centered Care: Mother/Baby & Women's Health Nursing
NUR	418	Family Centered Care: Parent/Child Nursing
NUR	422	Community/Public Health Nursing
NUR	426	Health Care Policy, Advocacy, & the Political Process
NUR	432	Patient Centered Care: High Acuity Nursing
NUR	438	Nursing Leadership and Management
NUR	456	Professional Role Transition

**R.N. to B.S.N. Option**

Distribution & Prerequisite Courses:  
 Human Anatomy + lab  
 Microbiology + lab  
 Biochemistry + lab  
 Physiology + lab  
 Statistics  
 English Composition (6 cr.)  
 Speech  
 Social *and* Behavioral Science Distribution (9 cr.)  
 Humanities *and* Arts Distribution (9 cr.)  
 Philosophy Distribution (3 cr.)  
 Theology Distribution (3 cr.)  
 Bio-Medical Ethics (3 cr.)  
 Computer Elective  
 Open Elective

**Nursing Major: R.N. to B.S.N.; Options (In addition to 32 credits by validation or examination)**

NUR	300	Introduction to Nursing Informatics
NUR	303	Professional Processes
NUR	313	Pathophysiology
NUR	337	Research in Nursing
NUR	481	Community Health Nursing
NUR	483	Health Assessment for RN's
NUR	488	Health Care Trends and Politics for Nurses
NUR	493R	Nursing Leadership

**Course Descriptions—  
Nursing Prefix: NUR**

(Theory credits, 1 cr = 15 hours; Clinical credits, 1 cr. = 45 hours)

**199 Special Topics (Theory 1-3)**

Content to be determined each semester as requested by faculty and/or students to fill specified needs or interests.

**205 Introduction to Nursing Science (Theory 2)**

This course provides an introduction to the professional and scientific foundation of nursing practice. Topics such as the historical development of nursing, ethical, legal and theoretical foundations of the profession are explored, and competencies necessary to provide safe, quality health care are presented. Prerequisites: Admission to the Nursing Program, Corequisites: NUR 313, NUR 319, NUR 323

**300 Special Topics (Theory 1-3)**

Content to be determined each semester by the School as requested by faculty and/or students to fill specified needs or interest.

The following is one of the titles available as a Special Topic course:

**Introduction to Nursing Informatics (Theory 3) (R.N. to B.S.N. only)**

Introduction to concepts of computer and information science as they relate to nursing informatics. Introduction and refinement of skills necessary to gather and dispense nursing data and nursing information as they relate to nursing science. Exploration of computer programs and software relevant to nursing administration, education, research, and practice (nursing knowledge). Prerequisite: Senior status

**303 Professional Processes (Theory 3) (R.N. to B.S.N.)**

Examines the health care delivery system based on the 8 processes inherent in the curriculum: change process, communication process, critical thinking,

leadership/management process, nursing process, professionalization process, research process, and teaching/learning process. Prerequisite: MAT 152, PHI 353, CS 180

### **313 Pathophysiology (Theory 4)**

The focus of this course is on alterations in the biological patterning that affects the homeostasis/homeodynamics in human beings. Emphasis is placed on the dynamic aspects of disease, signs and symptoms, and physical and laboratory findings. Prerequisites: Admission to the Nursing Program, Corequisites: NUR 205, NUR 319, NUR 323

### **319 Foundations of Nursing Care (Theory 3, Clinical 2, Lab 1)**

This course introduces basic nursing concepts to establish a foundation for nursing practice. These include therapeutic communication, nursing process, nursing interventions which promote safety, principles of infection control and skills for basic care and comfort needs. In addition to theory, students practice in the laboratory setting and begin to apply basic skills to patient care in clinical settings. Prerequisites: Admission to the Nursing Program. Corequisites: NUR 205, NUR 313, NUR 323

### **323 Health Assessment & Health Promotion (Theory 3, Lab 1)**

This course introduces the concepts and skills of health assessment across the lifespan and perspectives of wellness and health promotion while utilizing the nursing process. Health assessment is approached holistically, advocating the foundational principles of health promotion and client education. Prerequisite: Admission to the Nursing Program. Corequisites: NUR 205, NUR 313, NUR 319

### **329 Pharmacology (Theory 3)**

This course examines the principles of pharmacotherapeutics, pharmacodynamics, pharmacogenomics and pharmacokinetics. Professional Nursing implications of safe medication administration, adverse drug reactions and implications are emphasized. Prerequisites: NUR 205, NUR 319, NUR 323. Pre or Corequisite: NUR 313

### **335 Patient Centered Care: Adult & Elderly Nursing I (Theory 3, Clinical 2)**

This course focuses on the professional practice of patient-centered nursing for the adult and elderly within the context of acute and restorative care environments. Emphasis is on clinical reasoning and decision-making for patient centered collaborative care and safe clinical practice. Prerequisites: NUR 205, NUR 313, NUR 319, NUR 323, Corequisite: NUR 329

### **337 Research and Evidence-Based Practice (Theory 3)**

This course provides a basic understanding of the research process and examines its relationship to evaluation and application of evidence based knowledge in nursing practice. Prerequisite: NUR 205

### **343 Patient Centered Care: Adult & Elderly Nursing II (Theory 3, Clinical 3)**

This is the second course in a sequence that covers topics of adult and elderly nursing. The focus continues to be on the professional practice of patient centered nursing care for adults and elderly within the context of acute and restorative environments. Emphasis is on clinical reasoning and safe practice for more complex medical surgical patients. Prerequisites: NUR 329, NUR 335. Corequisite: NUR 383

### **383 Patient Centered Care: Behavioral Health Nursing (Theory 3, Clinical 2)**

This course focuses on the role of the nurse as provider of care for individuals experiencing acute and chronic mental health disorders. Emphasis is placed on the therapeutic relationship, evidence based practice for treatment modalities, teaching and learning related to safe administration of psychopharmacological agents and the role of the nurse within a patient centered, interdisciplinary approach to promote and support behavioral health. Prerequisites: NUR 329, NUR 335. Corequisite: NUR 343

### **416 Family Centered Care: Mother/Baby & Women's Health Nursing (Theory 2.5, Clinical 1.5)**

This course focuses on providing a continuum of care during the childbearing years. Emphasis is placed on women's health issues and care for mothers and babies during normal and high risk pregnancy and the labor and postpartum periods. Students apply theory to practice in acute and community clinical settings. Prerequisites: NUR 343, NUR 383. Corequisites: NUR 418, NUR 422, NUR 426)

### **418 Family Centered Care: Parent/Child Nursing (Theory 2.5, Clinical 1.5)**

This course focuses on the role of the nurse as provider of family centered care for infants, children and adolescents along the health-illness continuum. Students apply theory and evidence based knowledge to practice in acute and community clinical settings. Prerequisites: NUR 343, NUR 383. Corequisites: NUR 416, NUR 422, NUR 426

### **422 Community/Public Health Nursing (Theory 3, Clinical 3)**

This course provides a foundation of community and public health nursing concepts and interventions for individuals, families, and communities. Students

integrate health promotion and disease prevention concepts into multidimensional, population-focused, community-oriented nursing practice. Prerequisites: NUR 343, NUR 383. Corequisites: NUR 416, NUR 418, NUR 426

**426 Health Policy, Advocacy and the Political Process (Theory 2)**

This course provides a broad understanding of health care policies, regulation and finance as they impact quality of health care from a local to global perspective. Students examine the role of politics, advocacy and interdisciplinary collaboration to achieve health outcomes within a complex health care system. Prerequisites: NUR 205, NUR 337. Corequisite: NUR 422

**432 Patient Centered Care: High Acuity Nursing (Theory 3, Clinical 2)**

This course focuses on the acquisition and synthesis of health care knowledge with an emphasis on the adult population in the critical care environment. The student will apply the nursing process, problem solving techniques and critical thinking techniques in caring for patients with multi-system disease processes. Prerequisites: NUR 416, NUR 418, NUR 422, NUR 426. Corequisite: NUR 438

**438 Nursing Leadership and Management (Theory 3)**

This course provides knowledge related to basic organizational and systems leadership necessary for the nurse generalist to provide high quality health care. It assists the student in cultivating and acquiring leadership and management skills needed to work collaboratively within complex health care environments. Prerequisites: NUR 416, NUR 418, NUR 422, NUR 426. Corequisite: NUR 432

**456 Professional Role Transition (Clinical 4) (200 Hours)**

This is a clinical immersion capstone course which provides the student the opportunity to synthesize previous learning while further developing the knowledge, skills and attitudes of a beginning professional nurse. Students transition to the role of graduate nurse with the guidance of a preceptor in a selected area of practice. Prerequisites: All Nursing Courses

**459 Independent Study (Theory 1-3)**

Provides opportunity for an in-depth investigation in an area of nursing of special interest to the student. Student is primary course designer assisted by a nursing faculty member. Prerequisites: Senior status and permission of Program Director of the Undergraduate Program.

**481 Community Health Nursing (Theory 3, Clinical 3) (R.N. to B.S.N. Only)**

Focuses on health promotion and illness prevention, synthesis and application of nursing skills and theory while caring for individuals, families, and aggregates as an integral part of the community. Students study public health principles, and experience an in-depth relationship with client(s) over extended period of time in variety of community settings to become familiar with the many roles of the community health nurse. Prerequisites: "Nursing Credit by Examination" (32 crs.) or successful completion of respective course/tutorials.

**483 Health Assessment for R.N.'s (Theory 3) (R.N. to B.S.N. only)**

Introduces the concepts and skills of health assessment with focus on well adults and children. Prerequisites: BIO 220, BIO 240, BIO 253, CHE 152

**488 Healthcare Trends and Politics for Nurses (Theory 3) (R.N. to B.S.N. only)**

Introduction to the present realities of the healthcare industry, the stages of public policy development, and political activism. Focuses on paradigmatic shifts and trends impacting healthcare today, which will affect the new professional nurse. Connects policy and politics to practice. Prepares the student to proactively plan and function in a constantly changing healthcare environment, and empowers students to recognize their professional identities. Prerequisite: NUR 303

**493R Nursing Leadership (Theory 3) (R.N. to B.S.N. Only)**

Introduction to the professional and social issues of leadership roles and clinical management functions. Assists the student in cultivating and acquiring the leadership skills needed to be innovative and prepared to function in tomorrow's healthcare environment. Prerequisite: NUR 303