

PS 500 Independent Study

Such study involves research in areas of special interest to students, under faculty supervision. Offered to those students whom the department judges ready for such responsibility. May be repeated. Variable credit (not to exceed three credits per semester).

PS 550 Internship

Internships constitute a practicum to supplement academic learning. See the description above. The number of credits and the hours involved vary depending on the nature of the internship. Please see the Career Development Center Staff for current procedures that must be followed, in addition to securing departmental approval and supervision. Pass/Fail option only. Students are subject to the McKenna School's STUDENT GUIDE TO INTERNSHIP PROCEDURES AND REQUIREMENTS. See the Business Administration section of this Bulletin for a detailed description. May be repeated. Variable credit up to three credits.

Pre-Health Professions

James G. Barnett, Ph. D., Chairperson of Pre-professional Health Committee.

The pre-health professions refers to undergraduate preparation for study in allopathic medicine, chiropractic medicine, dental medicine, osteopathic medicine, optometry, podiatric medicine, and veterinary medicine. Students interested in these areas may choose any undergraduate major, but a solid foundation in biology and chemistry, and a fundamental knowledge of mathematics and physics are necessary.

Admission to professional schools is highly competitive and the Pre-professional Health Committee, composed of faculty from within and outside the natural sciences, works closely with individual students to determine where abilities and interests should be directed. During the freshman and sophomore years the Committee aids students in course selection, guides them toward extracurricular experiences necessary to be competitive, and provides opportunities for students to learn about admissions, schools and careers. The application process begins in the second semester of the junior year when students ask the Committee to prepare letters of recommendation. The Committee subsequently reviews each applicant. Many factors are weighed, some of which are academic performance, commitment to service, knowledge of the health professions, interpersonal skills, and leadership. Additionally, professional school admission exams are taken near the end of the junior year. Students then complete and submit their professional school applications during the summer between the junior and senior years.

The following courses are required by most health profession schools and the schedule is typical for pre-health students.

Freshman year:		Credits
BL 150-153	General Biology	8
CH 101-104	General Chemistry	8

Sophomore year:		Credits
MA 109-110 or 111-112	Calculus	8
CH 221-224	Organic Chemistry	8

Junior year:		Credits
PH 111-114	General Physics	8

Additionally, it is strongly recommended that Cell Biology (BL 208, 209) be completed by the end of the junior year. If scheduling permits, Mammalian Physiology (BL 224) should be completed also. Students interested in optometry should note that one semester each of statistics and microbiology are requisites for admission to some optometry schools.

Accelerated Osteopathic Medicine

Students interested in attending the Lake Erie College of Osteopathic Medicine have the option of completing their undergraduate and medical degrees in 7 years instead of 8 years. The required course of study while at Saint Vincent College follows. The curriculum is subject to revision and students may wish to attend summer school to reduce the course load in the second, fourth and/or sixth semesters. Students should consult with the Chairperson of the Preprofessional Health Committee for additional information.

First Semester (15 credits)

BL 150, 151	General Biology I with Laboratory
CH 101, 103	General Chemistry I with Laboratory
MA 111	Calculus I
RS 119	Exploring Religious Meaning

All students must take one 3 credit course designated as a First-Year Seminar.

Second Semester (18 credits)

BL 152, 153	General Biology II with Laboratory
CH 102, 104	General Chemistry II with Laboratory
MA 112	Calculus II
EL 102	Language & Rhetoric Social Science

Third Semester (16 credits)

BL 208, 209	Cell Biology with Laboratory
CH 221, 223	Organic Chemistry I with Laboratory
MA 113	Calculus III
PH 111, 113	General Physics I with Laboratory

Fourth Semester (17 credits)

BL 224	Mammalian Physiology - no Laboratory
CH 222, 224	Organic Chemistry II with Laboratory
PH 112, 114	General Physics II with Laboratory
PL 101	First Philosophy History

Fifth Semester (15 credits)

BL 220, 221	Comparative Vertebrate Anatomy with Laboratory
CH 231, 233	Physical Chemistry I with Laboratory
CH 251, 253	Proteins and Metabolism with Laboratory Religious Studies

Sixth Semester (18 credits)

CH 252, 254	Nucleic Acid and Membranes with Laboratory
CH 300	Research Seminar I
CH 304	Biological Chemistry Seminar History Philosophy Social Science English

Total Credit Hours at Saint Vincent College = 99

The culminating experience at Saint Vincent College is CH 304. At the end of the first year of successful study at the Lake Erie College of Osteopathic Medicine, the student receives the Bachelor of Science degree with a major in Biological Chemistry from Saint Vincent College. At the end of successful study at Lake Erie College of Osteopathic Medicine, the student receives the Doctor of Osteopathic Medicine degree.

Accelerated Podiatric Medicine

Students interested in attending the New York, Ohio or Pennsylvania Colleges of Podiatric Medicine have the option of completing their undergraduate and medical degrees in 7 years instead of 8 years. The required course of study while at Saint Vincent College follows. Students should consult the Chairperson of the Pre-professional Health Committee for additional information.

History	6 credits
English	6 credits
Philosophy	6 credits
Theology	6 credits
Social Sciences	6 credits
Intermediate Language	6 credits
General Chemistry	8 credits
Organic Chemistry	8 credits
Mathematics	8 credits
Physics	8 credits
General Biology	8 credits
Cell Biology	4 credits

Additionally, 12 credits must be selected from:

BL 214, 215	Molecular Genetics and Laboratory
BL 220, 221	Comparative Vertebrate Anatomy and Laboratory
BL 224, 225	Mammalian Physiology and Laboratory
BL 242, 243	Histology and Laboratory

All students must take one three (3) credit course designated as a First-Year Seminar.

Total credit hours at Saint Vincent College: 95 hours.

At the end of the second year of successful study at the College of Podiatric Medicine, the student receives the Bachelor of Arts degree with a major in Biology from Saint Vincent College. At the end of the fourth year of successful study at the College of Podiatric Medicine, the student receives the Doctor of Podiatric Medicine degree.

Cooperative Programs in the Health Professions With Duquesne University

Daryle H. Fish, Coordinator of the Duquesne Cooperative Programs

Through a cooperative agreement between Saint Vincent College and Duquesne University, students have the opportunity to complete two to three years of study at Saint Vincent College, and then transfer to Duquesne University to complete a degree in the following fields: Physician Assistant, Physical Therapy, Occupational Therapy, and Pharmacy. These unique programs allow you to begin your college education in the friendly educational community of Saint Vincent College which is known for its small class sizes and individualized attention. It is here that you will gain a strong background in the sciences coupled with a liberal arts foundation that features the strong Catholic Benedictine values of our institution. Many of our students hone their athletic and leadership skills by participating in collegiate athletics, intramural sports, student government, clubs, and services activities. At Duquesne University, you will complete your formal education in the urban setting of Pittsburgh that is known for its world-class health care. Upon completing one of these courses of study, you are prepared to enter the dynamic health care industry with an education that is firmly grounded in Catholic ideals. These programs of study are both rigorous and rewarding, allowing you to enter the health professions with a world-class education.

Students who wish to transfer to Duquesne University must maintain cumulative grade point average of at least 3.0 both overall and in their science courses. In addition, students may have no more than one grade below a B- in their science courses. Students submit an application, personal statement, critical review essay, CV, High School transcript, and three letters of reference to the Coordinator of the Duquesne Cooperative Programs the fall semester before transferring to Duquesne. Some programs such as Physical Therapy, require documentation of a minimum of 40 hours of volunteer, paid, or shadowing experience in a physical therapy setting. The Pre- Professional Health Committee recommends candidates to Duquesne based on academic performance, moral character, and the materials presented to the program coordinator.

In order to receive a recommendation from the committee, students should clearly demonstrate that they are able to be enrolled fulltime in coursework that includes multiple science and math courses, and maintain a grade point average above a 3.0. Students should enroll in a minimum of 14 credit hours each semester. While credits from other institutions may be transferred to Saint Vincent College, once a student is matriculated, taking additional courses off campus is discouraged. In most instances, a total of 2 non-science courses may be taken off campus after matriculation. No science courses may be taken off campus, except for science courses that are transferred into Saint Vincent College at matriculation. Students who transfer in multiple courses

at the time of matriculation are not eligible to take additional courses off campus. For example, if a student has AP credit for an English course, s/he would only be allowed to take one additional course off campus. If a student has AP or transfer credits for two or more courses, s/he would not be eligible to take additional courses off campus. Since it is important to demonstrate the ability to take multiple math and science courses while maintaining an appropriate GPA, taking science courses at Saint Vincent during summer school is discouraged.

The program coordinator and the Pre-Professional Health Committee periodically review the progress of the students enrolled in the programs and students will receive written feedback from the program coordinator. If a student experiences academic difficulty the committee may make a recommendation to alter the plan of study. If a student's GPA drops below 2.75, they may be dismissed from the program.

Physician Assistant

The Physician Assistant cooperative program between Saint Vincent College and Duquesne University School of Health Sciences is a five-year master's degree program. Upon successful completion of the fourth year, students who have not already earned a bachelor's degree will be awarded a Bachelor of Science in Health Sciences from Duquesne University. Upon successful completion of the fifth year, students will be awarded a Master of Physician Assistant degree from Duquesne University. Graduates are eligible to sit for the Physician Assistant National Certifying Examination. The required course of study while at Saint Vincent College follows.

Typical Freshman Year Schedule

Fall Semester

BL 150	General Biology I	3
BL 151	General Biology I Laboratory	1
CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
RS 119	Exploring Religious Meaning	3
EL	Literature Course	3
Total Fall		14

All students will take one three (3) credit course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

Spring Semester

BL 152	General Biology II	3
BL 153	General Biology II Laboratory	1
CH 102	General Chemistry II	3
CH 104	General Chemistry II Laboratory	1
EL 102	Language and Rhetoric	3
MA 104	Elementary Functions	3
AR	Fine Arts Course	3
Total Spring		17

Typical Sophomore Year Schedule

Fall Semester

HI 102, 103, 104	Western Civilization I or II, or Contemporary Europe	3
PH 111	General Physics I	3
PH 113	General Physics I Laboratory	1
PY 100	Introduction to Psychology	3
PY 203	Statistics I	3
SO 101	Introduction to Sociology	3
Total Fall		16

Spring Semester

BL 212	Microbiology	3
BL 213	Microbiology Laboratory	1
CH 107	Chemistry of Daily Life	3
PL 101	1st Philosophy	3
RS 282	Catholic Bioethics	3

CS 101	Survey of Computers	3
Total Spring		16

Total credit hours at Saint Vincent College = 63

The remaining three years are to be completed at Duquesne University.

Physical Therapy

The Physical Therapy cooperative program between Saint Vincent College and Duquesne University School of Health Sciences is a six-year doctoral program. Upon successful completion of the fourth year, students who have not already earned a Bachelor's degree will be awarded a Bachelor of Science in Biology or Bachelor of Arts in Liberal Arts from Saint Vincent College. Upon successful completion of the sixth year, students will be awarded a Doctor of Physical Therapy degree from Duquesne University. Graduates will be eligible to sit for state licensure examinations.

The required course of study while at Saint Vincent College follows.

Biology Major for Physical Therapy

Typical Freshman Year Schedule

Fall Semester

BL 150	General Biology I	3
BL 151	General Biology I Laboratory	1
CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
RS 119	Exploring Religious Meaning	3
	Intermediate Foreign Language	3
Total Fall		14

All students will take one three (3) credit course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

Spring Semester

BL 152	General Biology II	3
BL 153	General Biology II Laboratory	1
CH 102	General Chemistry II	3
CH 104	General Chemistry II Laboratory	1
EL 102	Language and Rhetoric	3
	Intermediate Foreign Language	3
PY 100	Introduction to Psychology	3
Total Spring		17

Typical Sophomore Year Schedule

Fall Semester

BL 208	Cell Biology	3
BL 209	Cell Biology Laboratory	1
CH 221	Organic Chemistry I	3
CH 223	Organic Chemistry I Laboratory	1
PL 101	1st Philosophy	3
HI	100 Level History Elective	3
MA 109	Calculus I	4
Total Fall		18

Spring Semester

BL 212	Microbiology	3
BL 213	Microbiology Laboratory	1
CH 222	Organic Chemistry II	3
CH 224	Organic Chemistry II Laboratory	1
RS 282	Catholic Bioethics	3
HI	200 Level History Elective	3
MA 110	Calculus II	4
Total Spring		18

Typical Junior Year Schedule

Fall Semester

BL 220	Comparative Anatomy	3
BL 221	Comparative Anatomy Laboratory	1
or		
BL 232	Ecology	3
BL 233	Ecology Laboratory	1
PH 111	General Physics I	3
PH 113	General Physics I Laboratory	1
PY 203	Statistics I	3
EL	Literature Elective	3
Intermediate Modern Language		3
Total Fall		17

Spring Semester

BL 234	Evolution	3
BL 235	Evolution Laboratory	1
or		
BL 236	Biology of Environmental Disturbances	3
BL 237	Biology of Environmental Disturbances Laboratory	1
or		
BL 224	Mammalian Physiology	3
BL 225	Mammalian Physiology Laboratory	1
PH 112	General Physics II	3
PH 114	General Physics II Laboratory	1
BL 301	Junior Research Seminar	2
AR	Fine Arts	3
PL	Philosophy Elective	3
Total Spring		16

Summer Semester

BL 302	Research Project	2
BL 303	Research Thesis	1

Total Credits at Saint Vincent equals 100

24 credit hours completed successfully at Duquesne will transfer to Saint Vincent College to complete the requirements for a BS degree in Biology.

3 credit hours at Duquesne University (460) Sociocultural Systems & Networking to satisfy Social Sciences Core Requirements.

The remaining three years are to be completed at Duquesne University.

Liberal Arts Major for Physical Therapy and Minor in Biology Concentration in Psychology

Typical Freshman Year Schedule

Fall Semester

BL 150	General Biology	3
BL 151	General Biology Laboratory	1
CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
RS 119	Exploring Religious Meaning	3
or		
EL 102	Language and Rhetoric	3
Intermediate Foreign Language		3
Total Fall		14

All students will take one three (3) credit course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

Spring Semester

BL 152	General Biology II	3
BL 153	General Biology II Laboratory	1
CH 102	General Chemistry II	3
CH 104	General Chemistry II Laboratory	1
RS 119	Exploring Religious Meaning	3
or		

EL 102	Language and Rhetoric	3
Intermediate Foreign Language		3
PY 100	Introduction to Psychology	3
Total Spring		17

Typical Sophomore Year Schedule

Fall Semester

BL 208	Cell Biology	3
BL 209	Cell Biology Laboratory	1
PY	Psychology Elective	3
PL 101	1st Philosophy	3
PY 203	Statistics	3
MA 109	Calculus I	4
Total Fall		17

Spring Semester

BL	Biology Elective	3
BL	Biology Elective	1
MA 110	Calculus II	4
PY	Psychology Elective	3
EL	Literature Elective	3
HI	100 Level History	3
Total Spring		17

Typical Junior Year Schedule

Fall Semester

PL	Philosophy	3
PH 111	General Physics I	3
PH 113	General Physics I Lab	1
LA 200	Methods and Techniques of Research	3
HI	200 Level History	3
EL	Literature course	3
PY	Psychology	3
Total Fall		19

Spring Semester

AN 222	Cultural Anthropology	3
PH 112	General Physics II	3
PH 114	General Physics II Lab	1
LA 250	Junior Seminar	3
FA	Fine Arts	3
RS 282	Catholic Bioethics	3
Total Spring		16

Summer After Junior Year

LA 310	Project Research	3
Total Credits At Saint Vincent		100

Senior Year (First Year at Duquesne)

20 additional credits to satisfy requirements for the BA in Liberal Arts
4 credits at Duquesne to satisfy requirements for Biology minor
3 credits at Duquesne (435) Psychology of Illness and Disability to satisfy requirements for Psychology Concentration.

Occupational Therapy

The Occupational Therapy cooperative program between Saint Vincent College and Duquesne University School of Health Sciences is a five-year master's degree program. Upon successful completion of the fourth year, students who have not already earned a bachelor's degree will be awarded a Bachelor of Science in Health Sciences from Duquesne University. Upon successful completion of the fifth year, students will be awarded a Master of Occupational Therapy degree from Duquesne University. Graduates will be eligible to sit for the National certification examination administered by the National Board for Certification in Occupational Therapy and apply for state licensure, if required.

Typical Freshman Year Schedule

Fall Semester

BL 150	General Biology I	3
BL 151	General Biology I Laboratory	1
CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
RS 119	Exploring Religious Meaning	3
EL 103	Principles of Literature	3
PY 100	Introduction to Psychology	3
Total Fall		17

All students will take one three (3) credit course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

Spring Semester

BL 152	General Biology II	3
BL 153	General Biology II Laboratory	1
CH 102	General Chemistry II	3
CH 104	General Chemistry II Laboratory	1
SO 101	Introduction to Sociology	3
EL 102	Language and Rhetoric	3
MA 104	Elementary Functions	3
Total Spring		17

Typical Sophomore Year Schedule

Fall Semester

BL 220	Comparative Anatomy	3
BL 221	Comparative Anatomy Laboratory	1
PH 111	General Physics I	3
PH 113	General Physics I Laboratory	1
PY 203	Statistics I	3
CS 101	Survey of Computers	3
SO 105	Chemical Dependency	3
Total Fall		17

Spring Semester

BL 224	Mammalian Physiology	3
BL 225	Mammalian Physiology Laboratory	1
AR 100	Art and Music of Western Culture	3
PL 101	1st Philosophy	3
RS 282	Catholic Bioethics	3
HI 103	Western Civilization II: 1300-1800	3
Total Spring		16
Total credit hours at Saint Vincent College		67

The remaining three years are to be completed at Duquesne University.

Pharmacy

The cooperative program between Saint Vincent College and Duquesne University School of Pharmacy is a six-year doctorate program leading to the Doctor of Pharmacy (Pharm.D.) degree. To practice pharmacy, students must pass a state licensure examination. The required course of study while at Saint Vincent College follows.

Typical Freshman Year Schedule

Fall Semester

BL 150	General Biology I	3
BL 151	General Biology I Laboratory	1
CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
RS 119	Exploring Religious Meaning	3
MA 109	Calculus I	4
	Statistics	3
Total Fall		18

All students will take one three (3) credit course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

Spring Semester

BL 152	General Biology II	3
BL 153	General Biology II Laboratory	1
CH 102	General Chemistry II	3
CH 104	General Chemistry II Laboratory	1
EL 103	Principles of Literature	3
EL 102	Language and Rhetoric	3
CA 120	Public Presentation	3
Total Spring		17

Cooperative Education experiences as follows:

OT Cooperative Education—Occupational Therapy

PA Cooperative Education—Physician Assistant

PM Cooperative Education—Pharmacy

PT Cooperative Education—Physical Therapy

550 Cooperative Education

Work experience program extending the learning experience beyond the college into the world of work, through internships, fieldwork and cooperative programs. Students are employed in an area related to their academic endeavor. Academic credits are P/F and are awarded according to the extent of the work experience. Students may or may not be paid depending upon the site. The purpose of the program is to integrate the academic studies and employment activities. Variable credit. May be repeated.