

Health-Related Concentrations

Health-Related Concentrations

Pre-Health Related Concentrations

Professional schools in health-related fields have very specific admission requirements. Students interested in these areas should begin planning their undergraduate curriculum as early as possible.

Any student who is interested in pursuing a career in one of these areas should contact the chair of the Pre-professional Advisory Committee, or another science division faculty member, upon matriculation at Lyon. While some health profession programs do not require a student to complete a bachelor's degree in order to apply, it is generally recommended that the student do so because of the competitive edge provided by a completed liberal arts education.

Health-Related Concentrations Degrees

Pre-Dental Concentration

Biology:

Professors: Cassia C. Oliveira and David Thomas

Associate Professors: Alexander Beeser and Maryline Jones

Assistant Professor: Eric South

The Pre-Dental Concentration prepares students to take the Dental Admission Test (DAT), and meet the requirements for dental school admission. The concentration may be added to any major, but usually is coupled with the Biology Major. This curriculum is based upon the requirements for the University of Tennessee Health Science Center – Memphis. Other schools may have additional requirements. Lyon College proficiency and common core courses (ENG 101 & 102, MTH 101, etc.) are not included here even though many schools list them as prerequisites. Some of these courses may have prerequisites not shown. Only one pre-health professions concentration may be declared.

NOTE

***Students may use BIO 110, CHM 110, PHY 210/211, PHY 240/241, SPN 101, and SPN 102 to satisfy Core requirements.**

Summary of Required Courses

Item #	Title	Credits
	BIO 110 & 112	8
BIO 250	Cell Biology	4
	BIO 356 OR CHM 356	4
CHM 110	General Chemistry I	4
CHM 120	General Chemistry II	4
CHM 210	Organic Chemistry I	4
CHM 220	Organic Chemistry II	4
	Physics Electives (4 credits)	4

Recommended Courses

Item #	Title	Credits
BIO 205	Biomedical Terminology	1
BIO 252	Genetics	4
BIO 310	Health Coaching	1
BIO 311	Health Coaching Practicum	1
BIO 360	Comparative Physiology	4
SPN 101	Beginning Spanish I	3
SPN 102	Beginning Spanish II	3

BIO 110 & 112

Item #	Title	Credits
BIO 110	Principles of Biology I	4
BIO 112	Principles of Biology II	4

BIO 356 OR CHM 356

Item #	Title	Credits
BIO 356	Biochemistry	4
CHM 356	Biochemistry	4

Physics Electives (4 credits)

* Students may use General Physics I or Fundamentals of Physics I to satisfy core requirements.

Item #	Title	Credits
PHY 210	General Physics I	3
PHY 211	General Physics I Laboratory	1
PHY 240	Fundamentals of Physics I	3
PHY 241	Fundamentals of Physics I Laboratory	1

Pre-Medical Concentration

Biology:

Associate Professor: Alexander Beeser

The Pre-Medical Concentration prepares students to take the Medical College Admission Test (MCAT), and meet the admissions requirements for medical school. The concentration may be added to any major, but usually is coupled with the Biology Major. This curriculum is based upon the requirements of the University of Arkansas for Medical Sciences. Other schools may have additional requirements. Lyon College proficiency and common core courses (ENG 101 & 102, MTH 101, etc.) are not included here even though many schools list them as prerequisites. Some of these courses may have prerequisites not shown. Only one pre-health profession concentration may be declared.

NOTE

***Students may use BIO 110, CHM 110, PHY 210/211, PHY 240/241, PSY 235, SPN 101, and SPN 102 to satisfy Core requirements.**

Summary of Requirements

Item #	Title	Credits
BIO 110	Principles of Biology I	4
BIO 112	Principles of Biology II	4
BIO 250	Cell Biology	4
BIO 252	Genetics	4
	BIO 356 OR CHM 356	4
CHM 110	General Chemistry I	4
CHM 120	General Chemistry II	4
CHM 210	Organic Chemistry I	4
CHM 220	Organic Chemistry II	4
	Physics Electives (4 credits)	4
	Social Science/Humanities Electives (2 Courses)	6
	Stats Electives (3 Credits)	3

Recommended Courses

Item #	Title	Credits
BIO 205	Biomedical Terminology	1
BIO 310	Health Coaching	1
BIO 311	Health Coaching Practicum	1
BIO 352	Molecular Biology	4
BIO 360	Comparative Physiology	4
BIO 366	Histology	4
SPN 101	Beginning Spanish I	3
SPN 102	Beginning Spanish II	3

BIO 356 OR CHM 356

Item #	Title	Credits
BIO 356	Biochemistry	4
CHM 356	Biochemistry	4

Physics Electives (4 credits)

* Students may use General Physics I or Fundamentals of Physics I to satisfy core requirements.

Item #	Title	Credits
PHY 210	General Physics I	3
PHY 211	General Physics I Laboratory	1
PHY 240	Fundamentals of Physics I	3
PHY 241	Fundamentals of Physics I Laboratory	1

Social Science/Humanities Electives (2 Courses)

ANT, ECO, PSY, RPH

Stats Electives (3 Credits)

Item #	Title	Credits
PSY 235	Statistics for the Behavioral Sciences	3
MTH 360	Probability and Statistics	3

Pre-Occupational Therapy Concentration

Psychology:

Associate Professor: Jennifer Daniels

The Pre-Occupational Therapy Concentration prepares students to take the Graduate Record Exam (GRE), and meet the admissions requirements for occupational therapy school. The concentration may be added to any major, but usually is coupled with the Biology Major or Psychology Major. This curriculum is based upon the requirements for most doctoral-level Arkansas Occupational Therapy schools. Other schools may have additional requirements. Lyon College proficiency and common core courses (ENG 101 & 102, MTH 101, etc.) are not included here even though many schools list them as prerequisites. Some of these courses may have prerequisites not shown. Only one pre-health profession concentration may be declared.

NOTES

* Students may use ANT 101, PSY 101, PSY 235, BIO 110, CHM 105/CHM 110, and PHY 210/PHY 211, PHY 240/241, SPN 101, and SPN 102 to satisfy core requirements.

* The BIO 110, CHM 110, and PHY 210 courses vary based on specific graduate program requirements.

Summary of Requirements

Item #	Title	Credits
ANT 101	Introduction to Cultural Anthropology	3
BIO 110	Principles of Biology I	4
BIO 205	Biomedical Terminology	1
BIO 260	Human Anatomy and Physiology I	4
BIO 262	Human Anatomy and Physiology II	4
	PHY 210/211 or PHY 240/241	4
PSY 101	Introduction to Psychology	3
PSY 290	Human Development	3
PSY 335	Abnormal Psychology	3
	Stats Electives (3 Credits)	3

Recommended Courses

Item #	Title	Credits
BIO 310	Health Coaching	1
BIO 311	Health Coaching Practicum	1
	CHM 105 or CHM 110	4
EXS 302	Kinesiology	3
PSY 318	Biological Psychology	3
SPN 101	Beginning Spanish I	3
SPN 102	Beginning Spanish II	3

PHY 210/211 or PHY 240/241

Select either General Physics I or Fundamentals of Physics I.

Item #	Title	Credits
PHY 210	General Physics I	3
PHY 211	General Physics I Laboratory	1
PHY 240	Fundamentals of Physics I	3
PHY 241	Fundamentals of Physics I Laboratory	1

Stats Electives (3 Credits)

Item #	Title	Credits
PSY 235	Statistics for the Behavioral Sciences	3
MTH 360	Probability and Statistics	3

CHM 105 or CHM 110

Item #	Title	Credits
CHM 105	Introduction to Chemistry *	4
CHM 110	General Chemistry I	4

Pre-Optometry Concentration

Biology:

Professors: Cassia C. Oliveira and David Thomas

Associate Professors: Alexander Beeser and Maryline Jones

Assistant Professor: Eric South

Chemistry:

Associate Professor: Irosha Nawarathne

Assistant Professor: Barry Gehm

Physics:

Associate Professor: Stuart Hutton

The Pre-Optometry Concentration prepares students to take the Optometry Admission Test (OAT), and meet the admissions requirements for optometry school. The concentration may be added to any major, but usually is coupled with the Biology Major or the Chemistry Major. This curriculum is based on the requirements of Southern College of Optometry. Other schools may have additional requirements. Lyon College proficiency and common core courses (ENG 101 & 102, MTH 101, etc.) are not included here even though many schools list them as prerequisites. Some of these courses may have prerequisites not shown. Only one pre-health profession concentration may be declared.

NOTES

*** Students may use BIO 110, CHM 110, MTH 210, PHY 210/211, PHY 240/241, PSY 101, PSY 235, SPN 101 and SPN 102 to satisfy Core requirements.**

*** Molecular biology may be substituted for BIO 356 Biochemistry.**

Summary of Requirements

Item #	Title	Credits
BIO 110	Principles of Biology I	4
BIO 112	Principles of Biology II	4
BIO 250	Cell Biology	4
BIO 352	Molecular Biology	4
CHM 110	General Chemistry I	4
CHM 120	General Chemistry II	4
CHM 210	Organic Chemistry I	4
MTH 210	Calculus I	4
PSY 101	Introduction to Psychology	3
	Stats Electives (3 Credits)	3
	Social Science/Humanities Electives (6 Credits)	6
	Physics Electives (4 credits)	4

Recommended Courses

Item #	Title	Credits
BIO 205	Biomedical Terminology	1
BIO 310	Health Coaching	1
BIO 311	Health Coaching Practicum	1
BIO 360	Comparative Physiology	4
CHM 220	Organic Chemistry II	4
SPN 101	Beginning Spanish I	3
SPN 102	Beginning Spanish II	3

Stats Electives (3 Credits)

Item #	Title	Credits
PSY 235	Statistics for the Behavioral Sciences	3
MTH 360	Probability and Statistics	3

Social Science/Humanities Electives (6 Credits)

ANT, ECO, HIS, POL, RPH, PSY (beyond PSY 101)

Physics Electives (4 credits)

* Students may use General Physics I or Fundamentals of Physics I to satisfy core requirements.

Item #	Title	Credits
PHY 210	General Physics I	3
PHY 211	General Physics I Laboratory	1
PHY 240	Fundamentals of Physics I	3
PHY 241	Fundamentals of Physics I Laboratory	1

Pre-Pharmacy Concentration

Biology:

Professors: Cassia C. Oliveira and David Thomas

Associate Professors: Alexander Beeser and Maryline Jones

Assistant Professor: Eric South

Chemistry:

Associate Professor: Irosha Nawarathne

Assistant Professor: Barry Gehm

The Pre-Pharmacy Concentration prepares students to take the Pharmacy College Admission Test (PCAT), and meet the admissions requirements for pharmacy school. The concentration may be added to any major, but usually is coupled with the Biology Major or the Chemistry Major. This curriculum is based upon the requirements of the University of Arkansas for Medical Sciences. Other schools may have additional requirements. Lyon College proficiency and common core courses (ENG 101 & 102, MTH 101, etc.) are not included here even though many schools list them as prerequisites. Some of these courses may have prerequisites not shown. Only one pre-health profession concentration may be declared.

NOTES

* Students may use BIO 110, CHM 110, MTH 210, PHY 210/211, PHY 240/241, PSY 235, SPN 101 and SPN 102 to satisfy Core requirements.

Summary of Requirements

Item #	Title	Credits
	Accounting or Economics Elective (3 Credits)	3
BIO 110	Principles of Biology I	4
BIO 112	Principles of Biology II	4
BIO 250	Cell Biology	4
CHM 110	General Chemistry I	4
CHM 120	General Chemistry II	4
MTH 210	Calculus I	4
CHM 210	Organic Chemistry I	4
CHM 220	Organic Chemistry II	4
	PHY 210/211 or PHY 240/241	4
	Math/Science Electives (10-12 Credits)	10-12
	Non-Science Electives (4 Courses)	12
	Stats Electives (3 Credits)	3

Recommended Courses

Item #	Title	Credits
BIO 205	Biomedical Terminology	1
BIO 310	Health Coaching	1
BIO 311	Health Coaching Practicum	1
BIO 360	Comparative Physiology	4
SPN 101	Beginning Spanish I	3
SPN 102	Beginning Spanish II	3
	BIO 356 OR CHM 356	4

Accounting or Economics Elective (3 Credits)

Item #	Title	Credits
ACC 210	Financial Accounting	3
ECO 101	Principles of Economics I	3

PHY 210/211 or PHY 240/241

Select either General Physics I or Fundamentals of Physics I.

Item #	Title	Credits
PHY 210	General Physics I	3
PHY 211	General Physics I Laboratory	1
PHY 240	Fundamentals of Physics I	3
PHY 241	Fundamentals of Physics I Laboratory	1

Math/Science Electives (10-12 Credits)

BIO252, BIO 356, BIO 360; CHM 224, CHM 356; MTH 220; PHY 220/221

Non-Science Electives (4 Courses)

ANT, ART, ECO, ENG, FGN, HIS, MUS, POL, RPH, PSY, THE

Stats Electives (3 Credits)

Item #	Title	Credits
PSY 235	Statistics for the Behavioral Sciences	3
MTH 360	Probability and Statistics	3

BIO 356 OR CHM 356

Item #	Title	Credits
BIO 356	Biochemistry	4
CHM 356	Biochemistry	4

Pre-Physical Therapy Concentration

Biology:

Professors: Cassia C. Oliveira and David Thomas

Associate Professors: Alexander Beeser and Maryline Jones

Assistant Professor: Eric South

Chemistry:

Associate Professor: Irosha Nawarathne

Assistant Professors: Barry Gehm

Exercise Science:

Assistant Professors: Allyn Byars and Mayron Faria de Oliveira

The Pre-Physical Therapy Concentration prepares students to take the Graduate Record Exam (GRE), and meet the admissions requirements for physical therapy school. The concentration may be added to any major, but usually is coupled with the Biology Major or Psychology Major. This curriculum is based on the requirements of the University of Central Arkansas. Other schools may have additional requirements. Lyon College proficiency and common core courses (ENG 101 & 102, MTH 101, etc.) are not included here even though many schools list them as prerequisites. Some of these courses may have prerequisites not shown. Only one pre-health profession concentration may be declared.

NOTES

*** Students may use BIO 110, CHM 110, PHY 210/211, PHY 240/241, PSY 101, PSY 235, SPN 101 and SPN 102 to satisfy Core requirements.**

Summary of Requirements

Item #	Title	Credits
BIO 110	Principles of Biology I	4
BIO 205	Biomedical Terminology	1
BIO 260	Human Anatomy and Physiology I	4
BIO 262	Human Anatomy and Physiology II	4
	Biology Electives (8 Credits)	8
CHM 110	General Chemistry I	4
CHM 120	General Chemistry II	4
	Physics Electives (4 credits)	4
PSY 101	Introduction to Psychology	3
	Stats Electives (3 Credits)	3

Recommended Courses

Item #	Title	Credits
BIO 310	Health Coaching	1
BIO 311	Health Coaching Practicum	1
SPN 101	Beginning Spanish I	3
SPN 102	Beginning Spanish II	3

Biology Electives (8 Credits)

Biology Electives (2 courses): BIO 112, BIO 250, BIO 252, BIO 330, BIO 350, BIO 352, BIO 356, BIO 360, BIO 364, BIO 366

Physics Electives (4 credits)

* Students may use General Physics I or Fundamentals of Physics I to satisfy core requirements.

Item #	Title	Credits
PHY 210	General Physics I	3
PHY 211	General Physics I Laboratory	1
PHY 240	Fundamentals of Physics I	3
PHY 241	Fundamentals of Physics I Laboratory	1

Stats Electives (3 Credits)

Item #	Title	Credits
PSY 235	Statistics for the Behavioral Sciences	3
MTH 360	Probability and Statistics	3

Pre-Physician Assistant Concentration

Biology:

Professors: Cassia C. Oliveira and David Thomas

Associate Professors: Alexander Beeser and Maryline Jones

Assistant Professor: Eric South

Chemistry:

Associate Professor: Irosha Nawarathne

Assistant Professors: Barry Gehm

The Pre-Physician Assistant Concentration prepares students to take the Graduate Record Exam (GRE), and meet the admissions requirements for physician assistant school. The concentration may be added to any major, but usually is coupled with the Biology Major. This curriculum is based upon the requirements for the University of Arkansas for Medical Sciences. Other schools may have additional requirements. Lyon College proficiency and common core courses (ENG 101 & 102, MTH 101, etc.) are not included here even though many schools list them as prerequisites. Some of these courses may have prerequisites not shown. Only one pre-health professions concentration may be declared.

NOTES

*** Students may use BIO 110, CHM 110, PSY 101, PSY 235, SPN 101, and SPN 102 to satisfy core requirements.**

Summary of Requirements

Item #	Title	Credits
BIO 110	Principles of Biology I	4
BIO 112	Principles of Biology II	4
BIO 250	Cell Biology	4
BIO 252	Genetics	4
BIO 260	Human Anatomy and Physiology I	4
BIO 262	Human Anatomy and Physiology II	4
CHM 110	General Chemistry I	4
CHM 120	General Chemistry II	4
CHM 210	Organic Chemistry I	4
PSY 101	Introduction to Psychology	3
	Stats Electives (3 Credits)	3

Recommended Courses

Item #	Title	Credits
BIO 205	Biomedical Terminology	1
BIO 310	Health Coaching	1
BIO 311	Health Coaching Practicum	1
	BIO 356 OR CHM 356	4
BIO 360	Comparative Physiology	4
BIO 366	Histology	4
CHM 220	Organic Chemistry II	4
ENG 103	Oral Presentation	3
PSY 318	Biological Psychology	3
SPN 101	Beginning Spanish I	3
SPN 102	Beginning Spanish II	3

Stats Electives (3 Credits)

Item #	Title	Credits
PSY 235	Statistics for the Behavioral Sciences	3
MTH 360	Probability and Statistics	3

BIO 356 OR CHM 356

Item #	Title	Credits
BIO 356	Biochemistry	4
CHM 356	Biochemistry	4

Pre-Veterinary Concentration

Biology:

Professors: Cassia C. Oliveira and David Thomas

Associate Professors: Alexander Beeser and Maryline Jones

Assistant Professor: Eric South

Chemistry:

Associate Professor: Irosha Nawarathne

Assistant Professors: Barry Gehm

The Pre-Veterinary Concentration prepares students to take the Veterinary College Admission Test (VCAT) and/or Graduate Record Exam (GRE), and meet the admissions requirements for veterinary school. The concentration may be added to any major, but usually is coupled with the Biology Major. This curriculum is based upon the requirements for Louisiana State University and Kansas State University. Other schools may have additional requirements. Lyon College proficiency and common core courses (ENG 101 & 102, MTH 101, etc.) are not included here even though many schools list them as prerequisites. Some of these courses may have prerequisites not shown. Only one pre-health profession concentration may be declared.

NOTES

***Students may use BIO 110, CHM 110, PHY 210/211, PHY 240/241, PSY 235, SPN 101 and SPN 102 to satisfy Core requirements.**

Summary of Required Courses

Item #	Title	Credits
	BIO 110 & 112	8
BIO 250	Cell Biology	4
BIO 252	Genetics	4
	BIO 356 OR CHM 356	4
CHM 110	General Chemistry I	4
CHM 120	General Chemistry II	4
CHM 210	Organic Chemistry I	4
CHM 220	Organic Chemistry II	4
ENG 103	Oral Presentation	3
	Math (Beyond MTH 101)	3
	Physics Electives (4 credits)	4
	Stats Electives (3 Credits)	3

Recommended Courses

Item #	Title	Credits
BIO 205	Biomedical Terminology	1
BIO 352	Molecular Biology	4
BIO 360	Comparative Physiology	4
BIO 366	Histology	4
BIO 370	Evolution	4
SPN 101	Beginning Spanish I	3
SPN 102	Beginning Spanish II	3

BIO 110 & 112

Item #	Title	Credits
BIO 110	Principles of Biology I	4
BIO 112	Principles of Biology II	4

BIO 356 OR CHM 356

Item #	Title	Credits
BIO 356	Biochemistry	4
CHM 356	Biochemistry	4

Math (Beyond MTH 101)

One MTH elective beyond MTH 101

Physics Electives (4 credits)

* Students may use General Physics I or Fundamentals of Physics I to satisfy core requirements.

Item #	Title	Credits
PHY 210	General Physics I	3
PHY 211	General Physics I Laboratory	1
PHY 240	Fundamentals of Physics I	3
PHY 241	Fundamentals of Physics I Laboratory	1

Stats Electives (3 Credits)

Item #	Title	Credits
PSY 235	Statistics for the Behavioral Sciences	3
MTH 360	Probability and Statistics	3