SCHOOL OF HEALTH SCIENCES AND PROFESSIONAL PROGRAMS

Department of Health and Human Performance

EXERCISE SCIENCE PROGRAM

HANDBOOK

Exercise Science Major

If you are looking to develop a career that helps others to reduce their health risks, restore physical function, or improve athletic performance, the York College Exercise Science program is for you. The program coursework includes a well-rounded curriculum exploring the behavioral, functional, nutritional, physiological, psychological, and structural benefits of exercise.

Mission:
The Exercise Science Major in the Department of Health and Human Performance at York College is dedicated to providing a rigorous and informative environment that promotes education and practical applications of exercise science, thereby enhancing physical performance, fitness, health, and quality of life.

Accreditation:
The Exercise Science major demonstrates academic excellence as the first in CUNY and the third in New York state to obtain accreditation by the **Commission on Accreditation of Allied Health Education Programs** (CAAHEP) through the **Committee on Accreditation for the Exercise Sciences** (CoAES).

Career Opportunities:
Graduates of the Exercise Science program can establish professional careers in a wide variety of job settings such as:

- Exercise Physiologist
- Clinical Exercise Physiologist
- Cardiopulmonary Rehabilitation Specialist
- Collegiate Strength and Conditioning Coach
- Sport Coach
- Wellness Life Coach
- Personal Trainer
- Physical Education Teacher
- Recreation Coordinator

Moreover, a bachelor's degree in Exercise Science can be a stepping-stone for pursuing an undergraduate or a graduate degree in an allied healthcare career such as Athletic Trainer, Chiropractic, Nursing, Physical or Occupational Therapist, or Physician Assistant.

According to the **Bureau of Labor** statistics, the projected job outlook growth of these occupations for the decade 2022-2032 will be faster than the average growth of other jobs, ranging from 10% (Exercise Physiologist) to 31% (Physician's Assistant), with median salary ranging from $51,000 to $121,000.

Program Requirements:
The Exercise Science major's course requirements, 4-year plan, and course descriptions are provided on the following pages. Please note that links are given for the prerequisite courses, whereas descriptions for the major's courses can be found on pp. 15-17.

Students considering pursuing either undergraduate or graduate degree in an allied health field can find the Exercise Science major's 4-year plan—including prerequisite requirements—for York College's Nursing Generic BS (pp. 7-8), Occupational Therapy (pp. 9-10) and Physician Assistant programs (pp. 13-14). In addition, the 4-year plans that include prerequisites for Athletic Training and Physical Therapy programs appear on pp. 5-6 and pp. 11-12, respectively.

Transfer students, based on their transferred courses, might require a different courses sequence.

Exercise Science Major Requirements

Admissions and retention criteria: all students must maintain a minimum GPA of 2.0.

I. Required Courses (11 credits)

BIO 120	Principles of Inheritance and Human Reproduction	
OR		
BIO 140	Human Biology	3
BIO 281	Human Structure and Function **[prereq: BIO 120 or BIO 140 (BIO 234 & BIO 235 may be substituted for BIO 281)]**	4
MATH 111	Introduction to Statistics and Probability **(prereq: MATH 104 or by placement)**	4

II. Required Major Discipline Courses (52 credits)

HE 314	Nutrition & Health	2
MS 115	Introduction to Electrocardiography	2
MS 225	Strength and Conditioning **(prereq: PE 141 and PE 150)**	3
MS 322	Recreation, Organization, and Leadership	3
MS 310	Introduction to Sports Rehabilitation and Sports Medicine **(prereq: PE 362)**	3
MS 375	Biomechanics **(prereq: PE 362)**	3
MS 487	Adult Fitness Programs **(prereq: junior status)**	3
MS 488	Field Work in Movement Science I **(prereq: PE 358, PE 362, PE 452, or proof of valid First Aid and CPR certifications, permission of department)**	2
MS 489	Field Work in Movement Science **(prereq: PE 358, PE 362, PE 452, or proof of valid First Aid and CPR certifications, permission of department)**	2
MS 490	Certified Exercise Physiologist Workshop **(prereq: MS 487 and PE 452)**	1
PE 141	Weight training	1
PE 150	Fitness for Living	2
PE 215	Basics of Motor Development and Motor Learning	3
PE 350	Principles and Foundations of Physical Education	2
PE 353	Physical Activity for Special Populations	2
PE 358	Physiology of Exercise **(prereq: BIO 281 or BIO 234 & BIO 235; and permission of department)**	3
PE 361	Sport Psychology and Coaching	3
PE 362	Kinesiology **(prereq: BIO 281 or BIO 234 & BIO 235; and permission of department)**	3
PE 363	Measurement and Evaluation in Health and Physical Education **(prereq: MATH 111 and permission of department)**	3
PE 365 WI	Research & Writing in Health & Physical Education **(ENG 126 and PE 363; or HE 363; or PH 320; or permission of department)**	3
PE 452	Cardiovascular Fitness Exercise Testing and Prescription **(prereq: PE 358 and permission of department)**	3
Proof of a current First Aid/CPR certification (within 3 months prior to graduation)		

Recommendation for Four-Year Course-Schedule Planner

Fall I (Freshman)		Spring I (Freshman)	
Course	**Credits**	**Course**	**Credits**
ENG 125	3.0	ENG 126	3.0
College Option: HE 111	3.0	[2] Foreign Languages	3.0
[1] Life and Physical Sciences: **BIO 140**	3.0	[3] Mathematical and Quantitative Reasoning: **MATH 111**	4.0
* US Diversity in its Experience (**choose one**)	3.0	* Individual and Society (**choose one**)	3.0
* World Culture and Global Issues (**choose one**)	3.0	PE 150	2.0
Total credits	**15.0**	**Total credits**	**15.0**

Fall II (Sophomore)		Spring II (Sophomore)	
Course	**Credits**	**Course**	**Credits**
* Creative Expression (**choose one**)	3.0	* Flexible Core (**choose one course in any area**)	3.0
Foreign Languages	3.0	HE 314	2.0
MS 115 *(offered fall only)*	2.0	PE 141	1.0
PE 350 *(offered fall only)*	2.0	Electives (**Liberal Arts**)	9.0
[4, 5] Scientific World: **BIO 281**	4.0		
Total credits	**14.0**	**Total credits**	**15.0**

Fall III (Junior)		Spring III (Junior)	
Course	**Credits**	**Course**	**Credits**
Electives (**Liberal Arts**)	3.0	MS 322 *(offered spring only)*	3.0
MS 225 *(offered fall only)*	3.0	MS 375 *(offered spring only)*	3.0
MS 487 *(offered fall only)*	3.0	PE 353 *(offered spring only)*	2.0
PE 215 *(offered fall only)*	3.0	PE 358 *(offered spring only)*	3.0
PE 362 *(offered fall only)*	3.0	PE 363 *(offered spring only)*	3.0
Total credits	**15.0**	**Total credits**	**14.0**

Fall IV (Senior)		Spring IV (Senior)	
Course	**Credits**	**Course**	**Credits**
Electives	6.0	Electives	9.0
MS 310 *(offered fall only)*	3.0	[7] MS 488 & 489 *(offered spring only)*	4.0
[6] PE 365 WI *(offered fall only)*	3.0	MS 490 *(offered spring only)*	1.0
PE 452 *(offered only)*	3.0	PE 361 *(offered spring only)*	3.0
Total credits	**15.0**	**Total credits**	**17.0**

Total Credits 120

- * Completion of two lower division Writing Intensive (WI) courses at the 100 or 200 level are required.
- [1] BIO 140 is a prerequisite for BIO 281 may also be taken to fulfill the Required Core: Life and Physical Sciences requirement.
- [2] Placement by *World Languages, Literatures, and Humanities* Dept. Rm 3C08.
- [3] MATH 111 is a prerequisite for PE 363 and fulfills the Required Core: Mathematical & Quantitative Reasoning requirement.
- [4] BIO 281 may also be taken to fulfill the Flexible Core: Scientific World requirement.
- [5] BIO 234 & 235 may be substituted for BIO 281
- [6] PE 365 may be also taken toward fulfillment of both College Option and upper division WI Requirement.
- [7] Requirement for First Aid and CPR certifications can be fulfilled by taking HE 200 and HE 317, or through external certification.

Athletic Training Prerequisites

Recommendation for Four-Year Course-Schedule Planner

In order to be eligible to apply for the Athletic Training graduate program, ***a minimum*** overall GPA of 3.0 is required, as is successful completion of the mandatory prerequisite courses. Note that due to the competitiveness of the AT program, fulfilling these requirements ***does not assure admission to the program***.

Students must complete the following courses:

- 1 Semester of college Pre-Calculus MATH 120
- 1 Semester of Statistics MATH 111
- 1 Semester of Biology with Laboratory
  - BIO 201
- 2 Semesters of Anatomy & Physiology I and II
  - BIO 234 & BIO 235
- 1 Semester of General Chemistry with a Lab
  - CHEM 106 and CHEM 107
- 1 Semesters of General Physics
  - PHYS 113 & PHYS 115
- 1 Semesters of Psychology
  - PSY 102
- 1 semester of Physiology of Exercise PE 358
- 1 semester of Kinesiology PE 362 or Biomechanics MS 375
- Clinical experience of at least 50 hours under the supervision of a licensed athletic trainer.

Fall I (Freshman)		**Spring I (Freshman)**	
Course	**Credits**	**Course**	**Credits**
ENG 125	3.0	ENG 126	3.0
[1] Foreign Languages	3.0	[2, ♯] Life and Physical Sciences: **CHEM 106* & 107***	5.0
* Individual and Society (**choose one**)	3.0	[3, ♯] Mathematical and Quantitative Reasoning: **MATH 111**	4.0
[♯] MATH 104	3.0	PE 150	2.0
* World Culture and Global Issues (**choose one**)	3.0	College Option: HE 111	3.0
Total credits	**15.0**	**Total credits**	**17.0**

Fall II (Sophomore)		**Spring II (Sophomore)**	
Course	**Credits**	**Course**	**Credits**
[♯] BIO 234	4.0	[♯] BIO 235	4.0
[4, ♯] Scientific World: **PSY 102**	3.0	* Creative Expression (**choose one**)	3.0
Foreign Languages	3.0	* Flexible Core (**choose one course in any area**)	3.0
MS 115	2.0	HE 314	2.0
* US Diversity in its Experience (**choose one**)	3.0	PE 141	1.0
		PE 215	3.0
		Total credits	**16.0**
Total credits	**15.0**		

Fall III (Junior)		Spring III (Junior)	
Course	**Credits**	**Course**	**Credits**
♯MATH 120	4.0	♯PHYS 113 & 115	5.0
MS 225	3.0	MS 322	3.0
PE 350	2.0	♯MS 375	3.0
♯PE 362	3.0	♯PE 358	3.0
		PE 363	3.0
Total credits	**12.0**	**Total credits**	**17.0**

Fall IV (Senior)		Spring IV (Senior)	
Course	**Credits**	**Course**	**Credits**
♯BIO 201	4.0	Electives	2.0
MS 310	3.0	PE 353	2.0
MS 487	3.0	PE 361	3.0
[5] PE 365 WI	3.0	[6]♯MS 488 & 489	4.0
PE 452	3.0	MS 490	1.0
Total credits	**16.0**	**Total credits**	**12.0**

Total Credits 120

- * Completion of two lower division Writing Intensive (WI) courses at the 100 or 200 level are required.
- ♯ Fulfills Athletic Training prerequisites and Exercise Science major requirements.
- [1] Placement by *World Languages, Literatures, and Humanities* Dept. Rm 3C08.
- [2] CHEM 106 & CHEM 107 may also be taken to fulfill the Required Core: Life and Physical Sciences requirement.
- [3] MATH 111 is a prerequisite for PE 363 and fulfills the Required Core: Mathematical & Quantitative Reasoning requirement.
- [4] PSY 102 may also be taken to fulfill the Flexible Core: Individual and Society.
- [5] PE 365 may be also taken toward fulfillment of the College Option: Writing Requirement.
- [6] Requirement for First Aid and CPR certifications can be fulfilled by taking HE 200 and HE 317, or through external certification.

Nursing – Generic BS Prerequisites

Recommendation for Four-Year Course-Schedule Planner

In order to be eligible to apply for the Nursing – Generic BS program, a completion of 56 General education and prerequisites courses including all lower division Writing Intensive courses is mandatory. ***A minimum*** overall GPA of 3.0 is required in the key prerequisite courses marked with an asterisk, as is a ***minimum*** grade of C in ***all*** college General Education courses. In addition, students are required to obtain a Basic Life Support Certification (BCLS) and earn a successful score on the NLN pre-admission RN exam (PAX-RN). Note that due to its competitiveness, fulfilling these requirements ***does not assure admission to the program***.

Students must complete the following courses:

- 1 Semester of MATH 104 or MATH 120 or placement into MATH 121
- 1 Semester of Statistics MATH 111
- 2 Semesters of Anatomy & Physiology I and II may be substituted (BIO 234* and BIO 235*)
- 1 Semester of Microbiology BIO 265
- 1 Semester of BIO 382
- 1 Semester of General Chemistry with a Lab
  - CHEM 106* and CHEM 107*
- 1 Semester of CHEM 230
- 2 Semesters of Psychology
  - PSY 102*
  - PSY 214 (Lifespan Development Psychology)

Fall I (Freshman)		Spring I (Freshman)	
Course	**Credits**	**Course**	**Credits**
ENG 125*	3.0	ENG 126	3.0
[1] Foreign Languages	3.0	[3, ♯] Life and Physical Sciences: **CHEM 106* & 107***	5.0
^ Individual and Society (**choose one**)	3.0	[4, ♯] Mathematical and Quantitative Reasoning: **MATH 111**	4.0
♯ MATH 104	3.0	PE 150	2.0
^ World Culture and Global Issues (**choose one**)	3.0	[5, ♯] PSY 214	3.0
[2, ♯] Scientific World: **PSY 102***	3.0		
Total credits	**18.0**	**Total credits**	**17.0**

Fall II (Sophomore)		Spring II (Sophomore)	
Course	**Credits**	**Course**	**Credits**
♯ BIO 234*	4.0	♯ BIO 235*	4.0
♯ CHEM 230	3.0	♯ BIO 265	3.0
Foreign Languages	3.0	[6, ♯] BIO 238	2.0
MS 115	2.0	^ Creative Expression (**choose one**)	3.0
PE 350	2.0	^ Flexible Core (**choose one course in any area**)	3.0
^ US Diversity in its Experience (**choose one**)	3.0		
Total credits	**17.0**	**Total credits**	**15.0**

Fall III (Junior)		Spring III (Junior)	
Course	**Credits**	**Course**	**Credits**
Electives	2.0	MS 322	3.0
MS 225	3.0	MS 375	3.0
PE 141	1.0	PE 358	3.0
PE 215	3.0	PE 361	3.0
PE 362	3.0	PE 363	3.0
Total credits	**12.0**	**Total credits**	**15.0**

Fall IV (Senior)		Spring IV (Senior)	
Course	**Credits**	**Course**	**Credits**
MS 310	3.0	Electives	6.0
MS 487	3.0	[8] MS 488 & 489	4.0
[7] PE 365 WI	3.0	MS 490	1.0
PE 452	3.0	PE 353	3.0
Total credits	**12.0**	**Total credits**	**14.0**

Total Credits 120

- [^] Completion of two lower division Writing Intensive (WI) courses at the 100 or 200 level are required.
- [#] Fulfills Nursing Generic - BS prerequisites.
- [1] Placement by *World Languages, Literatures, and Humanities* Dept. Rm 3C08.
- [2] PSY 102 may also be taken to fulfill the Flexible Core: Individual and Society.
- [3] CHEM 106 & CHEM 107 may also be taken to fulfill the Required Core: Life and Physical Sciences requirement.
- [4] MATH 111 is a prerequisite for PE 363 and fulfills the Required Core: Mathematical & Quantitative Reasoning requirement.
- [5] PSY 214 may also be taken to fulfill the College Option HE 111 requirement.
- [6] BIO 238 may substitute for HE 314 Exercise Science major requirement
- [7] PE 365 may be also taken toward fulfillment of the College Option: Writing Requirement.
- [8] Requirement for First Aid and CPR certifications can be fulfilled by taking HE 200 and HE 317, or through external certification.

Occupational Therapy Prerequisites

Recommendation for Four-Year Course-Schedule Planner

In order to be eligible to apply for the Occupational Therapy (OT) program, ***a minimum*** overall GPA of 2.9 is required, as is a ***minimum*** grade of C in ***all*** college and OT-specific prerequisite courses. Note that due to its competitiveness, fulfilling these requirements ***does not assure admission to the program***.

Students must complete the following courses:

- 1 Semester of Statistics MATH 111
- 2 Semesters of Anatomy & Physiology I and II may be substituted (BIO 234 and BIO 235)
- 1 Semester of General Chemistry with a Lab
  - CHEM 106 and CHEM 107
    OR
  - CHEM 108 and CHEM 109
- 1 Semester of General Physics (3-4 credits)
  - PHYS 140
- 3 Semesters of Psychology (3 credits)
  - PSY 102
  - PSY 214
  - PSY 238
- 1 Semester of introduction to Sociology SOC 101
- At least 50 hours of volunteer work in an Occupational Therapy setting or completion of Covid -19 alternative application
  - A minimum of 60 college credits (college credits must meet requirements for fulfillment of General Education requirements for a Bachelor's Degree).
  - Completion of a Lower Division writing course that meets requirements for fulfillment of a Bachelor's degree

Fall I (Freshman)		**Spring I (Freshman)**	
Course	**Credits**	**Course**	**Credits**
ENG 125	3.0	ENG 126	3.0
[1] Foreign Languages	3.0	[3, ♯] Life and Physical Sciences: **CHEM 106 & 107**	5.0
College Option: HE 111	3.0	[4, ♯] Mathematical and Quantitative Reasoning: **MATH 111**	4.0
[2, * ♯] Individual and Society: **SOC 101**	3.0	[5, ♯] Scientific World: **PSY 102**	3.0
[♯] MATH 104	3.0	HE 314	2.0
* World Culture and Global Issues (**choose one**)	3.0		
Total credits	**18.0**	**Total credits**	**17.0**

Fall II (Sophomore)		**Spring II (Sophomore)**	
Course	**Credits**	**Course**	**Credits**
[♯] BIO 234	4.0	[♯] BIO 235	4.0
* Creative Expression (**choose one**)	3.0	*Flexible Core (**choose one course in any area**)	3.0
Foreign Languages	3.0	PE 350	2.0
MS 115	2.0	[♯] PSY 214	3.0
[♯] PHYS 140	3.0	[♯] PSY 238	3.0
*US Diversity in its Experience (**choose one**)	3.0		
Total credits	**18.0**	**Total credits**	**15.0**

Fall III (Junior)		Spring III (Junior)	
Course	**Credits**	**Course**	**Credits**
Electives	2.0	MS 322	3.0
MS 225	3.0	MS 375	3.0
PE 141	1.0	PE 358	3.0
PE 215	3.0	PE 361	3.0
PE 362	3.0	PE 363	3.0
Total credits	**12.0**	**Total credits**	**15.0**

Fall IV (Senior)		Spring IV (Senior)	
Course	**Credits**	**Course**	**Credits**
MS 310	3.0	Electives	6.0
MS 487	3.0	PE 353	2.0
[6] PE 365 WI	3.0	[7] MS 488 & 489	4.0
PE 452	3.0	MS 490	1.0
Total credits	**12.0**	**Total credits**	**13.0**

Total Credits 120

- * Completion of two lower division Writing Intensive (WI) courses at the 100 or 200 level are required.
- ♯ Fulfills Occupational Therapy prerequisites.
- [1] Placement by *World Languages, Literatures, and Humanities* Dept. Rm 3C08.
- [2] SOC 101 may also be taken to fulfill the Flexible Core: Individual and Society.
- [3] CHEM 106 & CHEM 107 may also be taken to fulfill the Required Core: Life and Physical Sciences requirement.
- [4] MATH 111 is a prerequisite for PE 363 and fulfills the Required Core: Mathematical & Quantitative Reasoning requirement.
- [5] PSY 102 may also be taken to fulfill the Flexible Core: Scientific World requirement.
- [6] PE 365 may be also taken toward fulfillment of the College Option: Writing Requirement.
- [7] Requirement for First Aid and CPR certifications can be fulfilled by taking HE 200 and HE 317, or through external certification.

Physical Therapy Prerequisites

Recommendation for Four-Year Course-Schedule Planner

In order to be eligible to apply for the Physical Therapy (PT) graduate program, ***a minimum*** overall GPA of 3.0 is required, as is successful completion of the mandatory prerequisite courses. Note that due to the competitiveness of the PT program, fulfilling these requirements ***does not assure admission to the program***.

Students must complete the following courses:

- 1 Semester of English composition ENG 126
- 1 Semester of college Pre-Calculus MATH 120
- 1 Semester of Statistics MATH 111
- 2 Semesters of Anatomy & Physiology I and II (BIO 234 and BIO 235)
- 2 Semesters of Chemistry with a Lab
  - CHEM 108 & CHEM 109
  - CHEM 111 & CHEM 112
- 2 Semesters of General Physics
  - PHYS 113 & PHYS 115
  - PHYS 114 & PHYS 116
- 2 Semesters of Psychology
  - PSY 102
  - PSY 214
- Clinical experience of at least 100 hours under the supervision of a licensed physical therapist, with a minimum of 50 hours in a hospital-based or rehabilitation setting.

Fall I (Freshman)		**Spring I (Freshman)**	
Course	**Credits**	**Course**	**Credits**
ENG 125	3.0	ENG 126	3.0
[1] Foreign Languages	3.0	♯ CHEM 108 & CHEM 109	5.0
College Option: HE 111	3.0	[2, ♯] Mathematical and Quantitative Reasoning: **MATH 111**	4.0
♯ MATH 120	4.0	PE 150	2.0
*World Culture and Global Issues (**choose one**)	3.0	[3, ♯] Scientific World: **PSY 102**	3.0
Total credits	**16.0**	**Total credits**	**17.0**

Fall II (Sophomore)		**Spring II (Sophomore)**	
Course	**Credits**	**Course**	**Credits**
♯ BIO 234	4.0	♯ BIO 235	4.0
*Creative Expression (**choose one**)	3.0	♯ CHEM 111 & CHEM 112	5.0
Foreign Languages	3.0	*Flexible Core (**choose one course in any area**)	3.0
* Individual and Society: (**choose one**)	3.0	HE 314	2.0
MS 115	2.0	♯ PSY 214	3.0
*US Diversity in its Experience (**choose one**)	3.0		
Total credits	**18.0**	**Total credits**	**17.0**

Fall III (Junior)		Spring III (Junior)	
Course	**Credits**	**Course**	**Credits**
MS 225	3.0	[4, ♯] Life and Physical Sciences: **PHYS 113 & 115**	5.0
PE 141	1.0	MS 375	3.0
PE 215	3.0	PE 358	3.0
PE 350	2.0	PE 361	3.0
PE 362	3.0	PE 363	3.0
Total credits	**12.0**	**Total credits**	**17.0**

Fall IV (Senior)		Spring IV (Senior)	
Course	**Credits**	**Course**	**Credits**
MS 310	3.0	MS 322	3.0
MS 487	3.0	[6, ♯] MS 488 & 489	4.0
[5] PE 365 WI	3.0	MS 490	1.0
PE 452	3.0	PE 353	2.0
		[♯] PHYS 114 & 116	5.0
Total credits	**12.0**	**Total credits**	**15.0**

Total Credits 124

- * Completion of two lower division Writing Intensive (WI) courses at the 100 or 200 level are required.
- [♯] Fulfills Physical Therapy prerequisites.
- [1] Placement by *World Languages, Literatures, and Humanities* Dept. Rm 3C08.
- [2] MATH 111 is a prerequisite for PE 363 and fulfills the Required Core: Mathematical & Quantitative Reasoning requirement.
- [3] PSY 102 may also be taken to fulfill the Flexible Core: Scientific World requirement.
- [4] PHYS 113 & PHYS 115 may also be taken to fulfill the Required Core: Life and Physical Sciences requirement.
- [5] PE 365 may be also taken toward fulfillment of the College Option: Writing Requirement.
- [6] Requirement for First Aid and CPR certifications can be fulfilled by taking HE 200 and HE 317, or through external certification.

Physician Assistant Prerequisites

Recommendation for Four-Year Course-Schedule Planner

In order to be eligible to apply for the Physician Assistant (PA) program, ***a minimum*** overall GPA of 3.0 is required. Note that due to the competitiveness of the PA program, fulfilling this requirement ***does not assure admission to the program***.

Students must complete the following courses:

- 1 Semester of Statistics: MATH 111
- 2 Semesters of Biology with Laboratory (BIO 201and BIO 202)
- 2 Semesters of Anatomy & Physiology I and II (BIO 234 and BIO 235)
- 1 Semester of Microbiology BIO 265
- 3 Semesters of Chemistry with a Lab
  - CHEM 108 & CHEM 109
  - CHEM 111 & CHEM 112
  - CHEM 231 & CHEM 232
- 1 Semester of Biochemistry (BIO 412 or CHEM 412)
- 2 Semesters of Behavioral Sciences:
  - PSY 102
  - SOC 101 **OR** ANTH 101
- Completion of at least 500 hours of experience in a direct patient health care environment. Completion of 400 hours at time of application and documentation of at least 500 hours is required at time of enrollment. Clerical work is not considered health care experience. The program does not provide volunteer sites. Acceptable experience includes volunteer work or employment in hospitals, clinics, private offices or extended healthcare facilities. A separate letter on letterhead must be submitted at the time of application as proof of health care experience.

Fall I (Freshman)		**Spring I (Freshman)**	
Course	**Credits**	**Course**	**Credits**
ENG 125	3.0	ENG 126	3.0
[1] Foreign Languages	3.0	[♯] CHEM 108 & CHEMM 109	5.0
College Option: HE 111	3.0	[4, ♯] Mathematical and Quantitative Reasoning: **MATH 111**	4.0
[2, *, ♯] Individual and Society: **SOC 101**	3.0	PE 150	2.0
[♯] MATH 104	3.0	[5, ♯] Scientific World: **PSY 102**	3.0
[3, *, ♯] World Culture and Global Issues: **ANTH 101**	3.0		
Total credits	**18.0**	**Total credits**	**17.0**

Fall II (Sophomore)		**Spring II (Sophomore)**	
Course	**Credits**	**Course**	**Credits**
[♯] BIO 234	4.0	[♯] BIO 202	4.0
*Creative Expression (**choose one**)	3.0	[♯] BIO 235	4.0
Foreign Languages	3.0	[♯] CHEM 111 & CHEM 112	5.0
[6, ♯] Life and Physical Sciences: **BIO 201**	4.0	*Flexible Core (**choose one course in any area**)	3.0
*US Diversity in its Experience (**choose one**)	3.0	HE 314	2.0
Total credits	**17.0**	**Total credits**	**18.0**

Fall III (Junior)		Spring III (Junior)	
Course	**Credits**	**Course**	**Credits**
[#] BIO 265	3.0	[#] BIO 412 or CHEM 412	3.0
[#] CHEM 230 & CHEM 231	5.0	MS 375	3.0
MS 115	2.0	PE 141	1.0
PE 215	3.0	PE 358	3.0
PE 350	2.0	PE 363	3.0
PE 362	3.0		
Total credits	**18.0**	**Total credits**	**13.0**

Fall IV (Senior)		Spring IV (Senior)	
Course	**Credits**	**Course**	**Credits**
MS 225	3.0	MS 322	3.0
MS 310	3.0	[8, #] MS 488 & 489	4.0
MS 487	3.0	MS 490	1.0
[7] PE 365 WI	3.0	PE 353	2.0
PE 452	3.0	PE 361	3.0
Total credits	**15.0**	**Total credits**	**13.0**

Total Credits 129

- * Completion of two lower division Writing Intensive (WI) courses at the 100 or 200 level are required.
- [#] Fulfills Physician Assistance prerequisites.
- [1] Placement by *World Languages, Literatures, and Humanities* Dept. Rm 3C08.
- [2] SOC 101 may also be taken to fulfill the Flexible Core: Individual and Society.
- [3] ANTH 101 may also be taken to fulfill the Flexible Core: World Culture and Global Issues.
- [4] MATH 111 is a prerequisite for PE 363 and fulfills the Required Core: Mathematical & Quantitative Reasoning requirement.
- [5] PSY 102 may also be taken to fulfill the Flexible Core: Scientific World requirement.
- [6] BIO 201 may also be taken to fulfill the Required Core: Life and Physical Sciences requirement.
- [7] PE 365 may be also taken toward fulfillment of the College Option: Writing Requirement.
- [8] Requirement for First Aid and CPR certifications can be fulfilled by taking HE 200 and HE 317, or through external certification.

Exercise Science Program Course Descriptions

√ **Health Education 314.** Nutrition and Health. 2 hr.; 2 cr. *Prereq: None*.
The relationship of foods and nutrition to personal health and health problems, such as weight control. This course may be offered as a face-to-face course, a hybrid course or as a fully online asynchronous course.

Movement Science 115. Introduction to Electrocardiography. 3 hr. (1 hr. lecture & 2 hr. laboratory); 2 cr. *Prereq: None.*

Introduction to the theory and practice of 12-lead electrocardiogram (EKG). Interpreting normal and abnormal myocardial electrical recordings.

Movement Science 225. Strength and Conditioning. 3 hr.; 3 cr. *Prereq: Physical Education 141, Physical Education 150.*

Theories and practices of anaerobic physiology, strength, and conditioning. Presenting concepts and skills of implementing a year-round training program designed to meet sport-specific and fitness goals.

Movement Science 310. Introduction to Sports Rehabilitation and Sports Medicine. *3 hr. lecture, 3 cr., Prereq: Physical Education 362.* Not open to students with credit in PEAT 310.

An introductory course in the prevention, evaluation and treatment of sports injuries; acute care of injured individuals with emphasis on skeletal and soft tissue injuries.

√ **Movement Science 322.** Recreation, Organization and Leadership. 3 hr.; 3 cr. *Prereq: None*. Not open to students with credit in Physical Education 320.

The function and organization of recreational services and principles of recreation leadership in the community.

√ **Movement Science 375.** Biomechanics. 3 hr.; 3 cr. *Prereq: Physical Education 362.*

Mechanical principles and physical laws influencing human movement will be examined, analyzed and assessed. Application of the aforementioned to fitness related exercises and sports performance will be emphasized. This course may be offered in a face-to-face or hybrid format.

√ **Movement Science 487.** Adult Fitness Programs. 3 hr.; 3 cr. *Prereq: Junior status in departmental major.* Not open to students with credit in PE 487.

Planning, designing, managing, and evaluating adult fitness programs.

Movement Science 488. Field Work in Movement Science I. 6 hr. field experience; 2 cr. *Prereq: Physical Education 358, Physical Education 362, Physical Education 452,* Health Education 200 & Health Education 317 or proof of valid First Aid and CPR certifications, *and departmental permission required.*

This supervised experience provides the student the opportunity to apply knowledge and skills acquired in the Movement Science program. With guidance from a qualified supervisor and Movement Science faculty, the student engages in activities designed to enhance professional growth. Students will complete 6 hours field experience weekly, accumulating a total of 90 hours of off-campus experiential learning.

Movement Science 489. Field Work in Movement Science II. 6 hr. field experience; 2 cr. *Prereq: Physical Education 358, Physical Education 362, Physical Education 452,* Health Education 200 & Health Education 317 or proof of valid First Aid and CPR certifications, *and departmental permission required.*

This supervised experience provides the student the opportunity to apply knowledge and skills acquired in the Movement Science program. With guidance from a qualified supervisor and Movement Science faculty, the student engages in activities designed to enhance professional growth. Students will complete 6 hours field experience weekly, accumulating a total of 90 hours of off-campus experiential learning

Movement Science 490. Certified Exercise Physiologist Workshop. 2 hr.; 1 cr. *Movement Science 487, Physical Education 452, and departmental permission required.*

This course will support students' preparation for the Certified Exercise Physiologist (CPE) exam. Application of knowledge and skills pertaining to health-related fitness assessment, exercise prescription, and exercise program management. A review of required certification material will be conducted throughout the course. At the completion of the course students will be prepared to sit for the Certified Exercise Physiologist exam.

Physical Education 141. Weight Training. 2 hr.; 1 cr.

History and benefits of weight training, training principles and procedures related to weight training, implementation of a personal weight training program.

Physical Education 150. Fitness for Living. 3 hr. (1 hr. lecture; 2 hr. laboratory); 2 cr. *Prereq: None*. Not open to students with credit in Health Education 150.

The relationship of physical activity to health and the quality of life; basic principles of physical conditioning explored with the aid of the Human Performance Laboratory equipment; measurements and evaluation of personal physical fitness levels; design and pursuit of individual training programs; varied physical activity experience to meet the individual student's needs.

Physical Education 215. Basics of Motor Development and Motor Learning. 4 hr. (2 hr. lecture; 2 hr. laboratory); 3 cr. *Prereq:*
None. Not open to students with credit in both Physical Education 315 and Physical Education 356.

Lifespan development in human performance will be examined through concepts, applications and labs associated with motor development. Students will develop a base knowledge of movement concepts and their application to physical activities in relation to motor development across the lifespan.

√ **Physical Education 350**. Principles and Foundations of Physical Education. 2 hr.; 2 cr. *Prereq: Open only to students who intend to major in physical education*.

The role of the physical educator in contemporary education; the study of scientific and philosophical principles and of historical foundations.

√ **Physical Education 353.** Physical Activity for Special Populations. 2 hr.; 2 cr.

Principles of physical activity for individuals with physical, mental, or developmental disabilities, individuals with chronic disease, and the aged.

√ **Physical Education 358.** Physiology of Exercise. 4 hr. (2 hr. lecture; 2 hr. laboratory); 3 cr. *Prereq: Biology 281*; *or Biology 234; and Biology 235;* and *permission of department.* Not open to students with credit in Physical Education 352.

Physiological responses and adaptations resulting from physical activity; emphasis on the muscle bioenergetics and metabolism as well as the cardiopulmonary responses to both acute and chronic exercise. This course includes lectures and laboratory activities.

√ **Physical Education 361.** Sport Psychology and Coaching. 3 hr.; 3 cr. Not open to students with credit in both Physical Education 355 and Physical Education 360.

Application of psychological concepts to the study of sports and skilled motor performance; influence of psychological variables on performance and behavior of the sports participant. Factors related to coaching strategies and techniques in sport settings. Methods of coaching individual, dual, and team sports; the coach's role in planning and implementing programs.

√ **Physical Education 362.** Kinesiology. 3 hr. ; 3 cr. *Prereq: Biology 281*; *or Biology 234; and Biology 235;* and *permission of department.*

Anatomy of skeletal and muscular systems, mechanics of bodily movement, and detailed muscular analysis of skills used in physical activity.

√ **Physical Education 363.** Measurement and Evaluation in Health and Physical Education. 3 hrs.; 3 cr. *Prereq: Math 111 and permission of department. Not open to students with credit in Health Education 363*.

Nature and purpose of measurement in health and physical education; analysis of pertinent tests and their use in evaluating performance in these areas. *This course may be offered in a face-to-face or hybrid format.*

√ **Physical Education 365.** Research & Writing in Health & Physical Education. 3 hrs., 3 cr. *Prereq: ENG 126 and PE 363; or HE 363; or PH 320; or permission of department.*

This course is designed to introduce the concepts and methodologies in modern scientific inquiry and create the foundation for research in health and physical education. Students will be required to read and interpret scientific research, evaluate professional literature, and communicate their ideas and findings through written assignments. This is a Writing Intensive (WI) course.

Physical Education 452. Cardiovascular Fitness Exercise Testing and Prescription. 4 hr. (2 hr lecture; 2 hr laboratory); 3 cr. *Prereq: Physical Education 358 and permission of department*. Not open to students with credit in Health Education 452.
The physiological and psycho-social aspects of cardiovascular fitness; status of heart disease and preventive programs, exercise stress testing, exercise prescription, and conduct of fitness activities.

√ Course fulfills Liberal Arts requirements (60 credits of Liberal Arts required in a Bachelor of Science program).

Personal Four-Year Course-Schedule Planner

Fall I (Freshman)		Spring I (Freshman)	
Course	**Credits**	**Course**	**Credits**
Total credits		**Total credits**	

Fall II (Sophomore)		Spring II (Sophomore)	
Course	**Credits**	**Course**	**Credits**
Total credits		**Total credits**	

Fall III (Junior)		Spring III (Junior)	
Course	**Credits**	**Course**	**Credits**
Total credits		**Total credits**	

Fall IV (Senior)		Spring IV (Senior)	
Course	**Credits**	**Course**	**Credits**
Total credits		**Total credits**	

Total credits: _____