KINESIOLOGY AND HEALTH SCIENCE MAJOR

Department: Kinesiology and Health Science (https://catalog.bradley.edu/undergraduate/education-health-sciences/kinesiology-health-science/)

The major provides students with requisite knowledge and skills for postgraduate study in a variety of healthcare fields as well as entry level positions in the workforce. Our graduates have gone on to successfully complete post baccalaureate degrees in physical therapy, physician assistant, occupational therapy, medicine, athletic training, chiropractic, counseling, public health and other professions. Graduates entering the workforce have gained employment in medical sales, pharmaceutical sales, healthcare management and administration, as well as various positions in the health and fitness arena.

Admission Requirements

In addition to University and College of Education and Health Sciences requirements, the following are recommended for students to receive full consideration for admission to the Kinesiology and Health Science major as a first-year student:

A minimum of three years of high school mathematics and science (biology, chemistry, physics, anatomy and physiology are recommended)

Areas of Focus

Students pursuing the Kinesiology and Health Science degree typically plan to either continue their education in graduate programs for physical or occupational therapy, medicine, or another health profession. Others choose to pursue graduate work in non-direct patient care or to enter the workforce upon graduation. The KHS degree is designed to allow flexibility for students to gain the requisite knowledge needed for their specific professional goal. Major electives as well as the required minor provide the opportunity for students to complete coursework needed for graduate programs. Students work with an academic advisor to determine an appropriate plan of study.

Extra-Curricular Opportunities

Post-baccalaureate educational programs and future employers seek well rounded students who are involved in activities outside of the classroom. Bradley offers more than 200 student organizations that provide opportunities for Kinesiology and Health Science (KHS) students to become engaged on campus and in the local community. The Department of Physical Therapy and Health Science sponsor two organizations that include the Health Science Organization; and a service dog training program called “Wags for Mags.” KHS students have also served as tutors and supplemental instructors on campus as well as for local grade school and high school students who are patients at the Children’s Hospital of Illinois, volunteered side by side with Department faculty for Special Olympics, and participated in other community programs as well. KHS students have also taken advantage of unique opportunities to study in London, Dublin, Rome, and other foreign cities associated with Bradley’s Study Abroad Program and in doing so have successfully completed the College of Education and Health Science Global Scholars Program.

The Doctorate of Physical Therapy

First-year students admitted to the undergraduate program in Kinesiology and Health Science have the opportunity for Early Assurance (formerly known as direct admission) into Bradley’s Doctor of Physical Therapy graduate program. Applications are accepted starting in the second semester of the first year. See department for requirements.

Major Requirements

Code	Title	Hours
Required Core Courses		
BIO 111 & BIO 113	Introduction to Cell Biology and Introduction to Cell Biology Laboratory	4.0
BIO 112 & BIO 114	Introduction to Ecology and Evolution and Introduction to Ecology and Evolution Laboratory	4.0
or BIO 202	Microbiology and Immunology	
BIO 230 & BIO 231	Human Anatomy and Physiology I (Lecture) and Human Anatomy and Physiology Laboratory I	4.0
BIO 232 & BIO 233	Human Anatomy and Physiology II (Lecture) and Human Anatomy and Physiology Laboratory II	4.0
CHM 110 & CHM 111	General Chemistry I and General Chemistry I Lab	4.0
CHM 302	Medical Terminology	1.0
or NUR 391	Medical Terminology	
FCS 202	Food and Nutrition	3.0
KHS 110	Introduction to Health Science	1.0
KHS 210	Concepts in Personal Wellness and Fitness	3.0
KHS 230	Measurement in Physical Activity	3.0
KHS 310	Statistical Procedures in Health Sciences (PSY 205 acceptable for Neuroscience minors)	3.0
KHS 380	Disability and Health in a Global Society	3.0
KHS 460	Kinesiology	3.0
KHS 470	Health Science Application of Exercise Prescription	3.0
or KHS 480	Motion Analysis	
Select one of the following:		3.0-4.0
MTH 111	Elementary Statistics	
MTH 115	Brief Calculus With Applications I (for Physics pathway)	
PHY 107	General Physics I	4.0
PSY 101	Principles of Psychology	3.0
Required Elective Courses		
Select at least three of the following electives: [1]		4.0-11.0
CHM 116 & CHM 117	General Chemistry II and General Chemistry II Laboratory [2]	
FCS 220	Consumer Issues in Health Care	
FCS 304	Sports and Exercise Nutrition	
FCS 410		
KHS 300	Experiential Learning in Healthcare (EL)	
KHS 306	Health Science Applications for Sports	
KHS 320	Applied Physiology of Exercise	
KHS 343	Ethics of Healthcare	
KHS 345	Motor Control and Motor Learning	
KHS 350	Special Topics in Health Science	

KHS 425	Independent Study
KHS 470	Health Science Application of Exercise Prescription
KHS 480	Motion Analysis
M L 350	Managing for Results in Organizations
NUR 217	Men's Health Issues
NUR 219	Women and Health
PHY 108	General Physics II [2, 3]
PSY 303	Lifespan Developmental Psychology
PSY 311	Principles of Abnormal Psychology
Total Hours	**57-65**

1 At least 2 courses must be from KHS. KHS 300 Experiential Learning in Healthcare may be used as only one of the required electives. (KHS 470 Health Science Application of Exercise Prescription or KHS 480 Motion Analysis may be taken as an elective if not already used as a required course).

2 Students planning toapply to Doctor of Physical Therapy programs should choose CHM 116 and 117 AND PHY 108 as electives as these are prerequisites. Students must take these courses (plus KHS 345 Motor Control and Motor Learning AND KHS 345 Motor Control and Motor Learning) to be eligible for Early Assurance in Bradley's DPT program.

3 Students planning to apply to Doctor of Physical Therapy programs should choose CHM 116 General Chemistry II & CHM 117 General Chemistry II Laboratory **and** PHY 108 General Physics II as electives as these are prerequisites. Students must take these courses (plus KHS 320 Applied Physiology of Exercise and KHS 345 Motor Control and Motor Learning) to be eligible for Early Assurance in Bradley's DPT program.

At least 120 credit hours are required for the bachelor's degree, with at least 40 credit hours at the 300 level or above. Students must also meet Bradley University Core Curriculum requirements. Kinesiology and Health Science majors are required to take a minor, chosen in consultation with advisors in the Department of Physical Therapy and Health Science and in the minor department. For students choosing to complete two majors, the minor requirement will be waived.

Suggested Plan of Study

Following is a suggested plan of study for Kinesiology and Health Science Majors. Students must create a formal plan of study and discuss progress towards their degree with their advisors at least once a semester. Please note that course offerings can vary semester to semester. According to the Bradley University catalog, every candidate for a degree is personally responsible for meeting all requirements for graduation. No University official can relieve the student of this responsibility.

Course	Title	Hours
Freshman		
Fall		
BIO 111 & BIO 113	Introduction to Cell Biology and Introduction to Cell Biology Laboratory	4.0
MTH 111 or MTH 115	Elementary Statistics or Brief Calculus With Applications I	3.0-4.0
Bradley Core Curriculum Courses		6.0
KHS 110	Introduction to Health Science	1.0
EHS 120	The University Experience	1.0
	Hours	**15-16**
Spring		
BIO 112 & BIO 114	Introduction to Ecology and Evolution and Introduction to Ecology and Evolution Laboratory	4.0
KHS 210	Concepts in Personal Wellness and Fitness	3.0
PSY 101	Principles of Psychology	3.0
Bradley Core Curriculum Courses		6.0
	Hours	**16**
Sophomore		
Fall		
CHM 110 & CHM 111	General Chemistry I and General Chemistry I Lab	4.0
PHY 107	General Physics I	4.0
FCS 202	Food and Nutrition	3.0
Bradley Core Curriculum Courses		3.0
EHS 101	Big Questions in Education & Health Science	1.0
	Hours	**15**
Spring		
CHM 116 & CHM 117	General Chemistry II and General Chemistry II Laboratory [1]	4.0
PHY 108	General Physics II	4.0
KHS 230	Measurement in Physical Activity	3.0
Bradley Core Curriculum Courses		3.0
	Hours	**14**
Junior		
Fall		
BIO 230 & BIO 231	Human Anatomy and Physiology I (Lecture) and Human Anatomy and Physiology Laboratory I	4.0
KHS 300	Experiential Learning in Healthcare	1.0
KHS 310 or PSY 205	Statistical Procedures in Health Sciences or Quantitative Methods	3.0
Bradley Core Curriculum, Minor, or Elective courses		6.0
	Hours	**14**
Spring		
BIO 232 & BIO 233	Human Anatomy and Physiology II (Lecture) and Human Anatomy and Physiology Laboratory II	4.0
KHS 320	Applied Physiology of Exercise	3.0
KHS 380	Disability and Health in a Global Society (or other KHS elective)	3.0
Bradley Core Curriculum and/or Minor Courses		6.0
	Hours	**16**
Senior		
Fall		
KHS 345	Motor Control and Motor Learning	3.0
KHS 460	Kinesiology	3.0
Bradley Core Curriculum Course		3.0
CHM 302 or NUR 391	Medical Terminology or Medical Terminology	1.0
Minor Courses and/or Electives		6.0
	Hours	**16**
Spring		
KHS 306	Health Science Applications for Sports (or other KHS elective)	3.0
KHS 470 or KHS 480	Health Science Application of Exercise Prescription or Motion Analysis	3.0
Bradley Core Curriculum and/or Minor Courses		9.0
	Hours	**15**
	Total Hours	**121-122**

1 CHM 116 General Chemistry II/CHM 117 General Chemistry II Laboratory and PHY 108 General Physics II are required for students planning to apply to DPT programs and for Bradley's DPT Early Assurance.

Course sequence information is provided for sample purposes only. Students should consult with their academic advisor about their individual plan for course registration and completion of program requirements.

Faculty: Professors Peterson (chair), Strubhar; Associate Professor Dominguese; Assistant Professors S. Bertram, Cattone, Durr, Kelly, Koors, Latva, Starkey, Way.

The Department of Physical Therapy and Health Science offers a Bachelor of Science degree with a kinesiology and health science major in addition to a Doctor of Physical Therapy (D.P.T.) degree. For more information regarding the D.P.T. degree, please refer to the Graduate Catalog.

Mission

The mission of the Department of Physical Therapy and Health Science is to develop versatile individuals in a student-focused environment that prepares our graduates to lead, educate, advocate, and serve in an interdisciplinary healthcare environment.

Major Requirements

Code	Title	Hours
Required Core Courses		
BIO 111 & BIO 113	Introduction to Cell Biology and Introduction to Cell Biology Laboratory	4.0
BIO 112 & BIO 114	Introduction to Ecology and Evolution and Introduction to Ecology and Evolution Laboratory	4.0
BIO 230 & BIO 231	Human Anatomy and Physiology I (Lecture) and Human Anatomy and Physiology Laboratory I	4.0
BIO 232 & BIO 233	Human Anatomy and Physiology II (Lecture) and Human Anatomy and Physiology Laboratory II	4.0
CHM 110 & CHM 111	General Chemistry I and General Chemistry I Lab	4.0
CHM 116 & CHM 117	General Chemistry II and General Chemistry II Laboratory	4.0
CHM 302	Medical Terminology	1.0
or NUR 391	Medical Terminology	
FCS 202	Food and Nutrition	3.0
KHS 110	Introduction to Health Science	1.0
KHS 210	Concepts in Personal Wellness and Fitness	3.0
or KHS 230	Measurement in Physical Activity	
KHS 310	Statistical Procedures in Health Sciences [1]	3.0
KHS 320	Applied Physiology of Exercise	3.0
KHS 345	Motor Control and Motor Learning	3.0
KHS 460	Kinesiology	3.0
KHS 470	Health Science Application of Exercise Prescription	3.0
or KHS 480	Motion Analysis	
MTH 115	Brief Calculus With Applications I	4.0
or MTH 121	Calculus I	
PHY 107	General Physics I	4.0
PHY 108	General Physics II	4.0
PSY 101	Principles of Psychology	3.0
Required Elective Courses		
Select three of the following electives: [2]		3.0-10.0
FCS 220	Consumer Issues in Health Care	
FCS 304	Sports and Exercise Nutrition	
FCS 410		
KHS 210	Concepts in Personal Wellness and Fitness	
KHS 230	Measurement in Physical Activity (EL)	
KHS 300	Experiential Learning in Healthcare (EL)	
KHS 306	Health Science Applications for Sports	
KHS 343	Ethics of Healthcare	
KHS 350	Special Topics in Health Science	
KHS 380	Disability and Health in a Global Society (WI)	
KHS 425	Independent Study	
KHS 470	Health Science Application of Exercise Prescription	
KHS 480	Motion Analysis	
M L 350	Managing for Results in Organizations	
NUR 217	Men's Health Issues	
NUR 219	Women and Health	
PSY 303	Lifespan Developmental Psychology	
PSY 311	Principles of Abnormal Psychology	
Total Hours		**65-72**

1. PSY 205 Quantitative Methods Acceptable for neuroscience minors.
2. At least 2 courses must be from KHS. (KHS 210 Concepts in Personal Wellness and Fitness or KHS 230 Measurement in Physical Activity, KHS 470 Health Science Application of Exercise Prescription or KHS 480 Motion Analysis may be taken as an elective if not already used as a required course).

Note: Kinesiology and Health Science majors will take KHS 310 Statistical Procedures in Health Sciences unless they are pursuing a neuroscience minor.

In addition to the required list of courses, students interested in physical therapy, occupational therapy, and athletic training are encouraged to choose as many Kinesiology and Health Science courses as possible and should consider enrolling in PSY 303 Lifespan Developmental Psychology: Lifespan Developmental Psychology and/or PSY 311 Principles of Abnormal Psychology: Principles of Abnormal Psychology.

In addition to the required list of courses, students interested in physician assistant, medicine, and chiropractic are encouraged to enroll in BIO 202 Microbiology and Immunology: Microbiology and Immunology, CHM 162 Fundamentals of Organic and Biochemistry: Fundamentals of Organic and Biochemistry.

At least 120 credit hours are required for the bachelor's degree, with at least 40 credit hours at the 300 level or above. Students must also meet Bradley University Core Curriculum requirements. Kinesiology and Health Science majors are required to take a minor, chosen in consultation with advisors in the Department of Physical Therapy and Health Science and in the minor department.

Extra-Curricular Opportunities

Post-baccalaureate educational programs and future employers seek well rounded students who are involved in activities outside of the classroom. Bradley offers more than 200 student organizations that provide opportunities for Health Science students to become engaged on campus and in the local community. The Department of Physical Therapy

and Health Science sponsor two organizations that include the Health Science Organization; and a service dog training program called “Wags for Mags.” Health Science students have also served as tutors for local grade school and high school students who are patients at the Children’s Hospital of Illinois, have volunteered side by side with Department faculty for Special Olympics, and have participated in other community programs as well. Health Science students have also taken advantage of unique opportunities to study in London, Dublin, and other foreign cities associated with Bradley’s Study Abroad Program and in doing so have successfully completed the College of Education and Health Science Global Scholars Program. Students have also accompanied Doctor of Physical Therapy students and Department faculty on mission trips to the Dominican Republic.

The Doctorate of Physical Therapy

First-year students admitted to the undergraduate program in Kinesiology and Health Science have the opportunity for early assurance (formerly known as direct admission) into Bradley’s graduate program if they meet the following main criteria:

- all math and science courses must be taken at Bradley
- students must attain a math, science and overall GPA of 3.4 at the end of the sophomore year and 3.5 at the end of the junior year.

In addition to the GPA requirements – student must meet the following criteria to remain eligible for the early assurance option:

Criteria to maintain the Early Assurance Option.

1. After matriculation, all required math/science courses must be taken at Bradley. Advanced placement credit in the required math/science courses posted to their Bradley transcript will be accepted
2. Students must attain a math, science and overall GPA of 3.4 at the end of the sophomore year and 3.5 end of the junior year. Students must have a minimum of a B average in Anatomy and Physiology I and II including the lab.
3. The following courses must be completed by the beginning of the senior year.

Code	Title	Hours
BIO 111 & BIO 113	Introduction to Cell Biology and Introduction to Cell Biology Laboratory	4.0
BIO 112 & BIO 114	Introduction to Ecology and Evolution and Introduction to Ecology and Evolution Laboratory	4.0
BIO 230 & BIO 231	Human Anatomy and Physiology I (Lecture) and Human Anatomy and Physiology Laboratory I	4.0
BIO 232 & BIO 233	Human Anatomy and Physiology II (Lecture) and Human Anatomy and Physiology Laboratory II	4.0
PHY 107 & PHY 108	General Physics I and General Physics II	8.0
MTH 115 or MTH 121	Brief Calculus With Applications I Calculus I	4.0

4. Prior to the beginning of senior year, a student must have a minimum of 40 hours of observation in a physical therapy clinic with a minimum of 8 hours in an inpatient, skilled nursing or acute care setting. Time observing in the Department’s Clinic for Fitness and Function does not count toward these observation hours.
5. Early assurance cannot be deferred to the next application cycle.
6. Students who have early assurance and will be graduating in 3 years must let the department know of their early graduation in the fall of their sophomore year. In addition, students graduating in 3 years must have a math, science and overall GPA 3.5 at the end of their sophomore year (second year) and apply through PTCAS in the fall of their final year (3rd year).
7. Students **must** complete the application process to the DPT program through Physical Therapy Centralized Application Service (PTCAS). This includes submitting GRE scores, completing all the items in the application and submitting all fees before the published deadlines.
8. The GRE is waived for students satisfying early assurance requirements admission into Bradley's DPT program. Please note that other DPT programs may still require the GRE.
9. Early assurance can be denied for the following reasons: not following the procedures above, not maintaining the required GPA, not completing the application through PTCAS, not meeting the required observation hours, demonstrating egregious behavior while a student at Bradley, demonstrating unprofessional behavior in classes taken at Bradley.

Suggested Plan of Study

Following is a suggested plan of study for Kinesiology and Health Science Majors. Students should create a formal plan of study and discuss progress towards their degree with their advisors at least once a semester. Please note that course offerings can vary semester to semester. According to the Bradley University catalog, every candidate for a degree is personally responsible for meeting all requirements for graduation. No University official can relieve the student of this responsibility.

Course	Title	Hours
Freshman		
Fall		
BIO 111 & BIO 113	Introduction to Cell Biology and Introduction to Cell Biology Laboratory	4.0
MTH 115 or MTH 121	Brief Calculus With Applications I or Calculus I	4.0
Bradley Core Curriculum Courses		6.0
KHS 110	Introduction to Health Science	1.0
EHS 101 or EHS 120	Big Questions in Education & Health Science or The University Experience	1.0
	Hours	**16**
Spring		
BIO 112 & BIO 114	Introduction to Ecology and Evolution and Introduction to Ecology and Evolution Laboratory	4.0
KHS 210	Concepts in Personal Wellness and Fitness	3.0
PSY 101	Principles of Psychology	3.0
Bradley Core Curriculum Courses		6.0
	Hours	**16**
Sophomore		
Fall		
CHM 110	General Chemistry I	3.0
CHM 111	General Chemistry I Lab	1.0
PHY 107	General Physics I	4.0
FCS 202	Food and Nutrition	3.0
Bradley Core Curriculum Courses		3.0
	Hours	**14**
Spring		
CHM 116	General Chemistry II	3.0
CHM 117	General Chemistry II Laboratory	1.0
PHY 108	General Physics II	4.0

KHS 230	Measurement in Physical Activity	3.0
Bradley Core Curriculum Courses		3.0
	Hours	**14**
Junior		
Fall		
BIO 230 & BIO 231	Human Anatomy and Physiology I (Lecture) and Human Anatomy and Physiology Laboratory I	4.0
KHS 300	Experiential Learning in Healthcare	1.0
KHS 310 or PSY 205	Statistical Procedures in Health Sciences or Quantitative Methods	3.0
Bradley Core Curriculum, Minor, or Elective courses		6.0
	Hours	**14**
Spring		
BIO 232 & BIO 233	Human Anatomy and Physiology II (Lecture) and Human Anatomy and Physiology Laboratory II	4.0
KHS 320	Applied Physiology of Exercise	3.0
KHS 380	Disability and Health in a Global Society (or other KHS elective)	3.0
Bradley Core Curriculum and/or Minor Courses		6.0
	Hours	**16**
Senior		
Fall		
KHS 345	Motor Control and Motor Learning	3.0
KHS 460	Kinesiology	3.0
Bradley Core Curriculum Course		3.0
CHM 302 or NUR 391	Medical Terminology or Medical Terminology	1.0
Minor Courses and/or Electives		6.0
	Hours	**16**
Spring		
KHS 306	Health Science Applications for Sports (or other KHS elective)	3.0
KHS 470 or KHS 480	Health Science Application of Exercise Prescription or Motion Analysis	3.0
Bradley Core Curriculum and/or Minor Courses		9.0
	Hours	**15**
	Total Hours	**121**

Students considering graduate work as a physician, physician assistant, chiropractor, or dentist should consider electives in organic chemistry, microbiology and other pertinent course work.

Course sequence information is provided for sample purposes only. Students should consult with their academic advisor about their individual plan for course registration and completion of program requirements.

Following is a suggested plan of study for Kinesiology and Health Science Majors. Courses marked with an * indicate elective courses that are required for those students interested in pursuing graduate programs in Physical Therapy, specifically the Bradley University DPT via Early Assurance. Students pursuing other professional avenues may choose other elective courses. . Students must create a formal plan of study and discuss progress towards their degree with their advisors at least once a semester. Please note that course offerings can vary semester to semester. According to the Bradley University catalog, every candidate for a degree is personally responsible for meeting all requirements for graduation. No University official can relieve the student of this responsibility.

Course	Title	Hours
First Year		
Fall		
BIO 111 & BIO 113	Introduction to Cell Biology and Introduction to Cell Biology Laboratory	4.0
MTH 111 or MTH 115	Elementary Statistics or Brief Calculus With Applications I	3.0-4.0
KHS 110	Introduction to Health Science	1.0
EHS 120	The University Experience	1.0
Bradley Core Curriculum Courses		6.0
	Hours	**15-16**
Spring		
BIO 112 & BIO 114 or BIO 202	Introduction to Ecology and Evolution or Microbiology and Immunology	4.0
CHM 110 & CHM 111	General Chemistry I and General Chemistry I Lab	4.0
KHS 210	Concepts in Personal Wellness and Fitness	3.0
PSY 101	Principles of Psychology	3.0
	Hours	**14**
	Total Hours	**29-30**

Course	Title	Hours
Second Year		
Fall		
CHM 116 & CHM 117	General Chemistry II and General Chemistry II Laboratory [1]	4.0
PHY 107	General Physics I	4.0
FCS 202	Food and Nutrition	3.0
EHS 101	Big Questions in Education & Health Science	1.0
Bradley Core Curriculum Course		3.0
	Hours	**15**
Spring		
PHY 108	General Physics II [1]	4.0
KHS 230	Measurement in Physical Activity	3.0
Bradley Core Curriculum Courses		9.0
	Hours	**16**
	Total Hours	**31**

[1] CHM 116/CHM 117 and PHY 108 are required for students planning to apply to DPT programs and for Bradley's DPT Early Assurance.

Course	Title	Hours
Third Year		
Fall		
BIO 230 & BIO 231	Human Anatomy and Physiology I (Lecture) and Human Anatomy and Physiology Laboratory I	4.0
KHS 300	Experiential Learning in Healthcare	1.0-4.0
KHS 310	Statistical Procedures in Health Sciences	3.0
Bradley Core Curriculum, Minor, or Elective Courses		6.0
	Hours	**14-17**
Spring		
BIO 232 & BIO 233	Human Anatomy and Physiology II (Lecture) and Human Anatomy and Physiology Laboratory II	4.0
KHS 320	Applied Physiology of Exercise (or other KHS elective) [2]	3.0
KHS 380	Disability and Health in a Global Society	3.0
Bradley Core Curriculum and/or Minor courses		6.0
	Hours	**16**
	Total Hours	**30-33**

Course	Title	Hours
Fourth Year		
Fall		
KHS 345	Motor Control and Motor Learning (or other elective) [2]	3.0
KHS 460	Kinesiology	3.0
CHM 302 or NUR 391	Medical Terminology or Medical Terminology	1.0

Bradley Core Curriculum Course		3.0
Minor Courses and/or Electives		6.0
	Hours	**16**
Spring		
KHS 306	Health Science Applications for Sports (or other KHS elective)	3.0
KHS 470 or KHS 480	Health Science Application of Exercise Prescription or Motion Analysis	3.0
Bradley Core Curriculum and/or Minor Courses		9.0
	Hours	**15**
	Total Hours	**31**

[2] KHS 320 and KHS 345 are encouraged for students planning to apply to DPT programs and are required for Bradley's DPT Early Assurance.

Course sequence information is provided for sample purposes only. Students should consult with their academic advisor about their individual plan for course registration and completion of program requirements.