Exercise Science Handbook (2022-2023)

THE EXERCISE SCIENCE MAJOR

The King's College Exercise Science major provides students with an understanding of the physiological, biomechanical, and psychological effects of exercise on the human body. This unique and challenging program is designed to prepare students for a wide range of careers in the fast-growing fields of health, wellness, and fitness. The Exercise Science major at King's College provides students with a foundation of both theoretical and clinical knowledge while adhering to the King's mission to "teach its students not only how to make a living, but how to live."

Specifically, King's College offers six tracks within the major of Exercise Science:

Category 1 – Bachelor of Science degree tracks

- The Strength & Conditioning Track
- The Exercise Physiology Track

Category 2 – Bachelor of Science + Master of Science degree tracks

- The Exercise Science and Nutrition Science Track (3+2)
- The Exercise Science and Nutrition and Dietetics Track (3+2)
- The Exercise Science and Master of Science in Athletic Training Track (3+2)

Category 3 – Bachelor of Science + Doctorate degree tracks

- The Exercise Science and Chiropractic Track (3+4)
- The Exercise Science and Occupational Therapy Track (3+3)

Admission

For students interested in pursuing a degree in Exercise Science at King's College applications for admission may be obtained by contacting the Office of Admission at King's College. Applications are also available online at www.kings.edu.

Graduation Requirements

1. Completion of all courses in the Exercise Science curriculum.
2. A minimum grade of "C" in all Exercise Science or related courses (sciences, math, psychology, and education).
3. A minimum cumulative grade point average of 2.33 (an equivalent of a C+ letter grade).
4. A minimum cumulative Exercise Science major grade point average of 2.33.
5. Current CPR/AED certification.
6. Successful completion of all required internship credits.

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CORE CLASS REQUIREMENTS FOR EXERCISE SCIENCE

College Seminar		
Quest for Meaning	CSEM 100	3cr
Communication & Creative Expression		
Writing	ENGL 110	3cr
Oral Communication	COMM 101	3cr
Literature	ENGL 140-149	3cr
The Arts	ARTS 100-149	3cr
Citizenship		
History	HIST 100-149	3cr
Intercultural Competence	FREN/GERM/SPAN 100-level or Study Abroad	3cr
Global Connections	ECON 150-199; GEOG 150-199; HIST 150-199; PS 150-199; SOC 150-199	3cr
Quantitative & Scientific Reasoning		
Quantitative Reasoning	MATH 126*	3cr
Scientific Endeavor	NSCI 100	3cr
Science in Context	NSCI 171-199	3cr
Human Beh. & Soc. Inst.	SOC 101*	3cr
Wisdom, Faith, & the Good Life		
Introduction to Philosophy	PHIL 101	3cr
Philosophical Investigations	PHIL 170-199; MSB 287	3cr
Theology & Wisdom	THEO 150-159	3cr
Theology & the Good Life	THEO 160-169	3cr

*****Cross listed under core and major requirements

GRADING SCALE FOR EXERCISE SCIENCE

LETTER GRADE	STANDARD	PERCENTAGE	GPA
A	SUPERIOR LEVEL OF COMPETENCY	93-100%	4.00
A-	NOTABLE LEVEL OF COMPETENCY	90-92%	3.67
B+	GOOD LEVEL OF COMPETENCY	87-89%	3.33
B	SATISFACTORY LEVEL OF COMPETENCY	83-86%	3.00
B-	ADEQUATE LEVEL OF COMPETENCY	80-82%	2.67
C+	MARGINALLY SATISFACTORY LEVEL OF COMPETENCY	77-79%	2.33
C	MINIMAL LEVEL OF COMPETENCY	73-76%	2.00
C-		70-72%	1.67
D		65-69%	1.00
F	UNSATISFACTORY LEVEL OF COMPETENCY	below 65%	0.00

STRENGTH AND CONDITIONING TRACK

Description

This track will prepare students to enter the field of exercise science directly and be leaders in their profession. Students will take a substantial amount of hands-on exercise science classes and perform two internships.

Careers

A student graduating from this exercise science program with a concentration in Strength and Conditioning works in areas such as strength and conditioning, personal training, health promotion, fitness development, fitness management, cooperate wellness, commercial wellness, online training, running fitness facilities, or work with athletic teams and programs.

Examples of specific careers immediately available upon graduation:

- Small business owners and entrepreneurs in the exercise science industry
- Sports and wellness program instructors and directors
- Researchers in companies that make physiological equipment for testing and evaluation
- Managers and exercise leaders in corporate wellness programs
- Instructors in health and fitness clubs
- Supervisors of specialized health, fitness, wellness, or lifestyle programs in correctional services, police, fire, and emergency response organizations
- Fitness instructors in YMCAs, spas and resort centers
- Fitness directors and managers in the military
- Fitness instructors and supervisors at the state, regional, and national levels in sports and athletic programs
- Sports consultants in areas of psychology and training, biomechanics, efficiency and metabolism, and nutrition

Major Requirements – Strength & Conditioning Track

32 COURSES – 85 CREDITS

EXSC 219	Anatomy & Physiology I (3)
EXSC 219L	Anatomy & Physiology I Lab (1)
EXSC 220	Anatomy & Physiology II (3)
EXSC 220L	Anatomy & Physiology II Lab (1)
CHEM 107	General, Organic, and Biochem. (3)
CHEM 107L	General, Organic, and Biochem. Lab (1)
EXSC 101	Introduction to Exercise Science (3)
EXSC 150	Prev., Treatment & Em. Care (3)
EXSC 245	Principles of Health (3)
EXSC 280	Clinical Kinesiology & Anatomy (3)
EXSC 290	Exercise Physiology (3)
EXSC 309	Electrocardiology (3)
EXSC 310	Assessment & Measurements in Ex. (3)
EXSC 310L	Assessment & Measurements in Ex. Lab (1)
EXSC 320	Exercise and Special Populations (3)
EXSC 325	Nutrition and the Athlete (3)
EXSC 330	Alternative Methods of Exercise (3)
EXSC 360	Advanced Exercise Physiology (3)
EXSC 400	Science of Strength & Conditioning (3)
EXSC 400L	Science of Strength & Cond. Lab (1)
EXSC 440	Admin. & Org. for Exercise Facilities (3)
EXSC 450	Applied Strength & Conditioning (2)
EXSC 460	Corrective Ex. Tr. (2)
EXSC 480	Research & Design (3)
EXSC 491	Sport Psychology (3)
EXSC 499	Field Experience/Internship (6)
MATH 126	Introduction to Statistics (3)*
PHYS 108	Applied Biophysics (3)
PHYS 108L	Applied Biophysics Lab (1)
PSYC 101	Introduction to Psychology (3)
PSYC 340	Health Psychology (3)
SOC 101	Introduction to Sociology (3)*

*****Cross listed under core and major requirements

Suggested Curriculum Sequence – Strength & Conditioning Track

First Year					
Fall		Credits	**Spring**		Credits
EXSC 101	Introduction to Exercise Science	3	EXSC 150	Prev., Treat., & E. Care of Injuries	3
PHYS 108	Applied Biophysics	3	CHEM 107	General, Organic, and Biochemistry	3
PHYS 108L	Applied Biophysics Lab	1	CHEM 107L	General, Organic, and Biochem. Lab	1
HCE 101	Holy Cross Experience	1	PSYC 101	Introduction to Psychology	3
SOC 101	Introduction to Sociology	3	CORE	*Writing*	3
CORE	*Quest for Meaning*	3	CORE	*Oral Communication*	3
		14			**16**
Second Year					
Fall		Credits	**Spring**		Credits
EXSC 219	Anatomy & Physiology I	3	EXSC 220	Anatomy & Physiology II	3
EXSC 219L	Anatomy & Physiology I Lab	1	EXSC 220L	Anatomy & Physiology II Lab	1
EXSC 245	Principles of Health	3	EXSC 290	Exercise Physiology	3
EXSC 280	Clinical Kinesiology & Anatomy	3	CORE	*Literature*	3
CORE	*The Arts*	3	CORE	*Intercultural Competence*	3
CORE	*History*	3	CORE	*Global Connections*	3
		16			**16**
Third Year					
Fall		Credits	**Spring**		Credits
EXSC 309	Electrocardiology	3	EXSC 310	Assessment & Meas. in Ex.	3
EXSC 330	Alternative Methods of Exercise	3	EXSC 310L	Assessment & Meas. in Ex. Lab	1
EXSC 360	Advanced Exercise Physiology	3	EXSC 320	Exercise and Special Populations	3
CORE	*Introduction to Philosophy*	3	EXSC 325	Nutrition and the Athlete	3
CORE	*Theology and Wisdom*	3	MATH 126	Introduction to Statistics	3
			PSYC 340	Health Psychology	3
		15			**16**
Fourth Year					
Fall		Credits	**Spring**		Credits
EXSC 400	Science of S&C	3	EXSC 450	Olympic Weightlifting	2
EXSC 400L	Science of S&C Lab	1	EXSC 460	Corrective Exercise Techniques	2
EXSC 440	Admin. & Org. for Exercise Fac.	3	CORE	*Philosophical Investigations*	3
EXSC 480	Research & Design	3	CORE	*Theology and the Good Life*	3
EXSC 491	Sport Psychology	3	EXSC 499	Field Experience 2	3
EXSC 499	Field Experience 1	3			
		16			**13**

TOTAL CREDITS: 122

EXERCISE PHYSIOLOGY TRACK

Description

This track will prepare students to either enter the field of exercise science directly or help prepare them for physical therapy, biomechanics, or similar allied health graduate programs. This track is heavy in basic science, but can be modified to tailor individual needs of students that transfer out of other exercise science tracks.

Careers

The Exercise Physiology track is specifically designed to prepare students for graduate programs in Physical Therapy, Biomechanics, Cardio-Pulmonary Rehabilitation, Nursing, Physician Assistant Studies, Medicine, and other health related career requiring graduate schooling. Course requirements will satisfy most pre-requisite classes required for application to these programs. Since these course requirements are mostly science-based classes, minimal additional course work (besides the required course in the Exercise Physiology curriculum) would qualify students for application to other allied health professions such as Physician Assistant Studies, Medical School, Dental School, Veterinary School etc.

Examples of specific careers immediately available upon graduation:

- Clinical Exercise Physiologists
- Researchers in companies that make physiological equipment for testing and evaluation
- Supervisors of specialized health, fitness, wellness, or lifestyle programs in correctional services, police, fire, and emergency response organizations
- Exercise technologists in cardiology suites
- Sports consultants in areas of psychology and training, biomechanics, efficiency and metabolism, and nutrition
- Electrophysiology technologists in hospital settings

Examples of careers requiring post-graduate education:

- Educators/Researchers at institutions of higher learning in Exercise Physiology, Exercise Psychology, Biomechanics, Physiology, Biomedical Science, Public Health
- Physical Therapists in hospitals, in-patient/out-patient/in-home rehabilitation settings
- Cardio-pulmonary rehabilitation specialists
- Strength coaches for college, university and professional sports programs
- Exercise and/or Sport Psychologists
- Dieticians
- Chiropractors
- Physician Assistants*
- Physicians*
- Veterinarians*
- Pharmacists*

*Additional coursework in organic chemistry, biochemistry, and/or microbiology may be required depending on the specific graduate program

Major Requirements – Exercise Physiology Track

35 courses – 87 credits

BIOL 113	Evolution and Diversity (3)***
BIOL 113L	Evolution and Diversity Lab (1)***
BIOL 210	Organisms and Their Ecosystems (3)***
BIOL 210L	Organisms and Their Ecos. Lab (1)***
EXSC 219	Anatomy & Physiology I (3)
EXSC 219L	Anatomy & Physiology I Lab (1)
EXSC 220	Anatomy & Physiology II (3)
EXSC 220L	Anatomy & Physiology II Lab (1)
CHEM 113	General Chemistry I (3)**
CHEM 113L	General Chemistry I Lab (1)**
CHEM 114	General Chemistry II (3)***
CHEM 114L	General Chemistry II Lab (1)***
EXSC 101	Introduction to Exercise Science (3)
EXSC 150	Prev., Treatment & Em. Care (3)
EXSC 280	Clinical Kinesiology & Anatomy (3)
EXSC 290	Exercise Physiology (3)
EXSC 309	Electrocardiology (3)
EXSC 310	Assessment & Measurements in Ex. (3)
EXSC 310L	Assessment & Measurements in Ex. Lab (1)
EXSC 320	Exercise and Special Populations (3)
EXSC 325	Nutrition and the Athlete (3)
EXSC 330	Alternative Methods of Exercise (3)
EXSC 360	Advanced Exercise Physiology (3)
EXSC 370	Biochemistry For Exercise & Nutrition (3)
EXSC 480	Research & Design (3)
EXSC 499	Field Experience/Internship (3)
MATH 126	Introduction to Statistics (3)*
PHYS 111	Physics for the Life Sciences I (3)***
PHYS 111L	Physics for the Life Sci. I Lab (1)***
PHYS 112	Physics for the Life Sciences II (3)***
PHYS 112L	Physics for the Life Sci. II Lab (1)***
PSYC 101	Introduction to Psychology (3)
PSYC 340	Health Psychology (3)
PSYC 351	Psychopathology (3)
SOC 101	Introduction of Sociology (3)*

*****Cross listed under core and major requirements
** May be substituted with CHEM 107/L
*** May be substituted with ANY class with an EXSC, AT, OT, NUTR prefix **if graduate school is not desired**

Suggested Curriculum Sequence – Exercise Physiology Track

First Year					
Fall		Credits	**Spring**		Credits
EXSC 101	Introduction to Exercise Science	3	EXSC 150	Prev., Treat., & E. Care of Injuries	3
CHEM 113	General Chemistry I	3	CHEM 114	General Chemistry II	3
CHEM 113L	General Chemistry I Lab	1	CHEM 114L	General Chemistry II Lab	1
HCE 101	Holy Cross Experience	1	PSYC 101	Introduction to Psychology	3
SOC 101	Introduction to Sociology	3	CORE	*Writing*	3
CORE	*Quest for Meaning*	3	CORE	*Oral Communication*	3
		14			**16**
Second Year					
Fall		Credits	**Spring**		Credits
EXSC 280	Clinical Kinesiology & Anatomy	3	EXSC 290	Exercise Physiology	3
EXSC 219	Anatomy & Physiology I	3	EXSC 220	Anatomy & Physiology II	3
EXSC 219L	Anatomy & Physiology I Lab	1	EXSC 220L	Anatomy & Physiology II Lab	1
PHYS 111	Physics for the Life Sciences I	3	PHYS 112	Physics for the Life Sciences II	3
PHYS 111L	Physics for the Life Sciences I Lab	1	PHYS 112L	Physics for the Life Sciences II Lab	1
CORE	*The Arts*	3	CORE	*Literature*	3
CORE	*History*	3			
		17			**14**
Third Year					
Fall		Credits	**Spring**		Credits
EXSC 309	Electrocardiology	3	EXSC 310	Assessment & Meas. in Ex.	3
EXSC 330	Alternative Methods of Exercise	3	EXSC 310L	Assessment & Meas. in Ex. Lab	1
EXSC 360	Advanced Exercise Physiology	3	EXSC 320	Exercise and Special Populations	3
CORE	*Intercultural Competence*	3	EXSC 325	Nutrition and the Athlete	3
CORE	*Global Connections*	3	EXSC 370	Biochemistry For Exercise & Nutrition	3
			MATH 126	Introduction to Statistics	3
		15			**16**
Fourth Year					
Fall		Credits	**Spring**		Credits
BIOL 113	Evolution & Diversity	3	BIOL 210	Organisms & Their Ecosystems	3
BIOL 113L	Evolution & Diversity Lab	1	BIOL 210L	Organisms & Their Ecosystems Lab	1
EXSC 480	Research & Design	3	EXSC 499	Field Experience/Internship	3
PSYC 351	Psychopathology	3	PSYC 340	Health Psychology	3
CORE	*Introduction to Philosophy*	3	CORE	*Philosophical Investigations*	3
CORE	*Theology and Wisdom*	3	CORE	*Theology and the Good Life*	3
		16			**16**

TOTAL CREDITS: 124

EXERCISE SCIENCE & ATHLETIC TRAINING TRACK (3+2)

Description

Playing for a professional sports team tops the list of many dream jobs, but in reality those opportunities are few and far between. Many turn their passion for the game into a career as an athletic trainer, helping to improve sports performance by preventing and treating injuries. Whether it's a high school football player who needs his ankle taped or a professional basketball player with a chronic wrist injury, athletic trainers help prevent future injuries and heal existing ones.

Athletic Trainers (also known as ATs) are unique health care providers who specialize in the prevention, diagnosis, and intervention of emergency, acute, and chronic medical conditions involving impairment, functional limitations, and disabilities. In collaboration with physicians and other health team members, athletic trainers make decisions about how to optimize activity and participation of their patients and clients.

A strong science background and technical abilities are vital for athletic trainers, but other personality traits are critical as well. A good athletic trainer has strong observational abilities to detect and monitor potential injuries. They are able to remain calm and communicate effectively when athletes get hurt. And they always put the patient first, using their knowledge and expertise to ensure the right care is given to stay healthy and mobile.

Requirements

All 3+2 MSAT Program students are guaranteed a seat in the Professional Phase of the program if they meet all progression criteria, meet all requirement for entry, and submit a formal application to the Professional Phase.

Progression criteria for the PreProfessional Phase are as follows:

• At the end of Year 2, the student must have a cumulative G.P.A. of 2.000 or higher and a major G.P.A. of 2.000 or higher to continue.
• At the end of the fall semester of Year 3, the student must have a cumulative G.P.A. of 2.000 or higher and a major G.P.A. of 2.000 or higher to continue.

Requirements for entry into the Professional Phase are as follows (must be met by the end of the spring semester of Year 3):

• Completion of all Year 1, 2, and 3 major and Core (non-major) coursework
• Cumulative G.P.A. and major G.P.A. of 2.670 or higher
• Completion of a minimum of 50 athletic training experience hours
• Completion of a formal application to the Professional Phase

Year 4 of the 3+2 MSAT Program is the first year of the Professional Phase. See the King's College Graduate Catalog for more information about the Professional Phase and the graduate part of the program. During Year 4, students begin graduate-level coursework. Progression criteria for Year 4 are as follows:

• Students must earn a grade of "C" or better in all coursework
• At the end of Year 4, the student must have a cumulative G.P.A. of 2.670 or higher and a major G.P.A. of 2.670 or higher to continue.

Careers

Our strong and active alumni network ensures that graduates will have extensive support during and after program completion, which has led to 100% of our graduates being employed in a variety of settings. Among the high-profile organizations our graduates have secured jobs with:

PROFESSIONAL SPORTS

National Football League: Kansas City Chiefs, Philadelphia Eagles, Minnesota Vikings

Major League Soccer: New York City Football Club

NCAA DIVISION I COLLEGES/UNIVERSITIES

University of Louisville, University of Texas San Antonio, University of Virginia

US OLYMPIC AND PARALYMPIC TEAMS

Lake Placid Olympic Training Center

Our athletic training graduates are also employed in organizations outside of sports environments in emerging settings such as:

Physician Practice – clinical staff, operating room technicians, and primary rehabilitation positions

Performing Arts – theater, dance, music, and entertainment (Acrobatics, circus, movies/television industry)

Health Care Administration – administrative/management positions in physician practices, hospital systems, pharmaceuticals, insurance carriers, etc.

Industrial – Utility workers, warehouses, manufacturing plants

Military – All five branches of the armed forces employ ATs to work with their personnel

Public Safety – police, fire, federal, state, and local law enforcement agencies (FBI, DEA, Homeland Security), plus wilderness fire and rescue personnel

Rehabilitation Clinics – primary rehabilitation in outpatient and inpatient clinics

Community Outreach – hospital and clinical outreach, youth sports, club sports, large tournament/event services

Analytics and Outcomes style research

Business: Private enterprises, durable medical equipment sales, consulting

MAJOR COURSE REQUIREMENTS – Exercise Science & Athletic Training Track – Undergraduate Portion

AT 100	Introduction to the Athletic Training Profession (1)
AT 120	Principles of Biology for Health Sciences (3)
EXSC 219	Anatomy & Physiology I (3)
EXSC 219L	Anatomy & Physiology I Lab (1)
EXSC 220	Anatomy & Physiology II (3)
EXSC 220L	Anatomy & Physiology II Lab (1)
CHEM 107	General, Organic, and Biochem. (3)
CHEM 107L	General, Organic, and Biochem. Lab (1)
EXSC 101	Introduction to Exercise Science (3)
EXSC 150	Prev., Treatment & Em. Care (3)
EXSC 245	Principles of Health (3)
EXSC 280	Clinical Kinesiology & Anatomy (3)
EXSC 290	Exercise Physiology (3)
EXSC 309	Electrocardiology (3)
EXSC 310	Assessment & Measurements in Ex. (3)
EXSC 310L	Assessment & Measurements in Ex. Lab (1)
EXSC 320	Exercise and Special Populations (3)
EXSC 325	Nutrition and the Athlete (3)
EXSC 330	Alternative Methods of Exercise (3)
MATH 126	Introduction to Statistics (3)*
PHYS 108	Applied Biophysics (3)
PHYS 108L	Applied Biophysics Lab (1)
PSYC 101	Introduction to Psychology (3)

MAJOR COURSE REQUIREMENTS – Exercise Science & Athletic Training Track – Graduate Portion

AT 400	Foundations of Athletic Training (3)
AT 405	Pharmacology & General Medicine (2)
AT 410	Evidence-Based Medicine (2)
AT 415	Athletic Training Procedures (2)
AT 420	Athletic Training Practicum 1 (3)
AT 425	Athletic Training Practicum 2 (3)
AT 430	Prevention, Evaluation, & Diagnosis 1 (4)
AT 435	Prevention, Evaluation, & Diagnosis 2 (4)
AT 450	Therapeutic Interventions 1 (4)
AT 455	Therapeutic Interventions 2 (4)
AT 470	Advanced Human Anatomy (3)
AT 475	Head, Neck, & Spine (3)
AT 520	Athletic Training Practicum 3 (3)
AT 525	Athletic Training Practicum 4 (3)
AT 530	Advanced Therapeutic Interventions (3)
AT 540	Psychosocial & Professional Issues (3)
AT 550	Evidence-Based Medicine 2 (3)
AT 570	Management & Leadership Strategies (3)
AT 580	Nutrition & Wellness (3)

Suggested Curriculum Sequence – Exercise Science & Athletic Training Track

Undergraduate Portion

First Year					
Fall		Credits	Spring		Credits
AT 100	Intro. to the Athletic Training Profession	1	AT 120	Principles of Biology for Health Sciences	3
EXSC 101	Introduction to Exercise Science	3	EXSC 150	Prev., Treat., & E. Care of Injuries	3
PHYS 108		3	CHEM 107	General, Organic, and Biochemistry	3
PHYS 108L	Applied Biophysics Lab	1	CHEM 107L	General, Organic, and Biochemistry Lab	1
CORE		3	CORE		3
CORE		3	CORE		3
HCE 101	Holy Cross Experience	1			
		15			16
Second Year					
Fall		Credits	Spring		Credits
EXSC 245	Principles Of Health	3	EXSC 290	Exercise Physiology	3
EXSC 280	Clinical Kinesiology & Anatomy	3	EXSC 220	Anatomy & Physiology II	3
EXSC219	Anatomy & Physiology I	3	EXSC 220L	Anatomy & Physiology II Lab	1
EXSC 219L	Anatomy & Physiology I Lab	1	CORE		3
PSYC 101	Intro. to Psychology	3	CORE		3
CORE		3	CORE		3
		16			16
Third Year					
Fall		Credits	Spring		Credits
EXSC 309	Electrocardiology	3	EXSC 310	Assessment & Meas in Ex.	3
EXSC 330	Alternative Methods of Exercise	3	EXSC 310L	Assessment & Meas in Ex. Lab	1
CORE		3	EXSC 320	Exercise and Special Populations	3
CORE		3	EXSC 325	Nutrition and the Athlete	3
CORE		3	MATH 126	Introduction to Statistics	3
			CORE	Theology and the Good Life	3
		15			16

TOTAL CREDITS: 94

Graduate Portion

First Year					
Summer		Credits			
AT 400	Foundations of Athletic Training	3			
AT 405	Pharmacology & General Medicine	2			
AT 410	Evidence-Based Medicine 1	2			
AT 415	Athletic Training Procedures	2			
		9			
Fall		Credits	**Spring**		Credits
AT 420	Athletic Training Practicum 1	3	AT 425	Athletic Training Practicum 2	3
AT 430	Prevention, Evaluation, & Diagnosis 1	4	AT 435	Prevention, Evaluation, & Diagnosis 2	4
AT 450	Therapeutic Interventions 1	4	At 455	Therapeutic Interventions 2	4
AT 470	Advanced Human Anatomy	3	AT 475	Head, Neck, & Spine	3
		14			**14**
Second Year					
Fall		Credits	**Spring**		Credits
AT 520	Athletic Training Practicum 3	4	AT 525	Athletic Training Practicum 4	4
AT 530	Advanced Therapeutic Interventions	3	AT 570	Management & Leadership Strategies	3
AT 540	Psychosocial & Professional Issues	3	AT 580	Nutrition & Wellness	3
AT 550	Evidence-Based Medicine 2	3			
		13			**10**

TOTAL CREDITS: 60 (154 Combined UG + GR)

* AT 420 and AT 425 will include required clinical experiences that are non-immersive, meaning that students will take other courses while also completing the clinical experiences. These clinical experiences will be in a variety of settings. Clinical experiences will typically begin in early August (several weeks prior to the start of the fall semester), will continue across the entire academic year (which may include during breaks), and will typically end in May.

** AT 520 will include required clinical experiences that are immersive. Immersive experiences are practice-intensive and allow the student to experience the totality of care provided by athletic trainers. Students do not take other courses during immersive experiences. Clinical experiences will occur on the following schedule:

- 3 weeks of immersive clinical experiences prior to the start of the semester (typically August)
- 4 weeks of immersive clinical experiences in the first half of the semester (typically August/September)
- 8 weeks of no clinical experiences (typically September/October/November); all other courses will be taken at this time
- 4 weeks of immersive experiences in the second half of the semester (typically November/December)

***AT 525 will include required clinical experiences that are immersive. Clinical experiences will occur on the following schedule:

- 3-4 weeks of immersive clinical experiences prior to the start of the semester (typically December/January)
- 8 weeks of no clinical experiences (typically January/February/March); all other courses will be taken at this time
- 8 weeks of immersive experiences in the second half of the semester (typically March/April/May)

EXERCISE SCIENCE & NUTRITION TRACK (3+2)

Description

This track prepares students to receive two degrees in exercise science and nutrition/dietetics. Students will be enrolled in a fast and competitive dual degree program that is heavy in basic and life science, comprehensive with many exercise science classes, before being enrolled in our two-year online nutrition/dietetics program. The bachelor of science in exercise science degree will be awarded to students upon successful completion of 120 total credits (typically after completion of the 4th year i.e. the first year of graduate nutrition/dietetics program). For the graduate portion, students may choose between the Nutrition Science and the Nutrition and Dietetics option. For specific information for these two graduate tracks, please consult the nutrition science program.

Requirements

Admission to the graduate phase (nutrition/dietetics) of the program requires the following:

- Successful completion of all major exercise science course work with a minimum of a B (3.0) grade
- Minimum "B" grade in all Biology and Chemistry courses, as well as EXSC 290, EXSC 360, EXSC 370
- Cumulative GPA of 3.00 or better

Careers

- Clinical: Work directly with patients in hospitals, nursing homes, rehab centers and private practices as a member of their health care team to assess, plan, implement and evaluate a client's nutrition care.
- Research: Conduct nutrition-related research and oversee clinical trials at colleges, universities, and governmental/private research facilities and private food companies.
- Education: Help transform habits by teaching, developing curriculum, or program administration to schools, employees, state boards, nutrition councils and the general public.
- Industry: Perform quality control, research, marketing and recipe development for food manufacturers, pharmaceutical companies, and food service companies.
- Private Practice: Impact change through consulting, health and wellness coaching, writing and public speaking to individuals, companies, trade publications and non-governmental organizations.
- Food/Nutrition management: Administer food service systems, food sourcing resources, health and lifestyle coaching and developing nutritional programs for hospitals, hotels, spas, restaurants and schools.
- Community/Public Health: Advocate to influence the development of nutrition-related legislation to governmental, state and local agencies to develop and administer nutrition programs.
- Non-profit/International Food Organizations: Serve and educate across the world for organizations such as Oxfam, Peace Corps and the Center for Food Safety.

MAJOR COURSE REQUIREMENTS – Exercise Science & Nutrition Track – Undergraduate Portion

24 courses – 60 credits

EXSC 219	Anatomy & Physiology I (3)
EXSC 219L	Anatomy & Physiology I Lab (1)
EXSC 220	Anatomy & Physiology II (3)
EXSC 220L	Anatomy & Physiology II Lab (1)
CHEM 113	General Chemistry I (3)
CHEM 113L	General Chemistry I Lab (1)
CHEM 114	General Chemistry II (3)
CHEM 114L	General Chemistry II Lab (1)
CHEM 241	Organic Chemistry I (3)
CHEM 241L	Organic Chemistry I Lab (1)
EXSC 101	Introduction to Exercise Science (3)
EXSC 150	Prev., Treatment & Em. Care (3)
EXSC 245	Principles of Health (3)
EXSC 280	Clinical Kinesiology & Anatomy (3)
EXSC 290	Exercise Physiology (3)
EXSC 309	Electrocardiology (3)
EXSC 310	Assessment & Measurements in Ex. (3)
EXSC 310L	Assessment & Measurements in Ex. Lab (1)
EXSC 320	Exercise and Special Populations (3)
EXSC 330	Alternative Methods of Exercise (3)
EXSC 360	Advanced Exercise Physiology (3)
EXSC 370	Biochemistry For Exercise & Nutrition (3)
MATH 126	Introduction to Statistics (3)*
SOC 101	Introduction of Sociology (3)*

Plus, graduate credits from the Master In Nutrition Science program will be counted towards the completion of the Bachelor of Science in Exercise Science degree (total 120 credits for the B.S. degree).

*****Cross listed under core and major requirements

MAJOR COURSE REQUIREMENTS – Exercise Science & Nutrition Track – Graduate Nutrition Option

NUTR 501	Physiological Basis of Nutrition I (3)
NUTR 502	Physiological Basis of Nutrition II (3)
NUTR 511	Nutritional Biochemistry I – Macronutrients (3)
NUTR 512	Nutritional Biochemistry II – Micronutrients (3)
NUTR 520	Nutrition through the Lifecycle (3)
NUTR 530	Adv Sports Nutrition and E-Metabolism w/Lab (3)
NUTR 540	Dietary Supplements and Herbal Medicine (3)
NUTR 550	Principles of foods and management w/Lab (3)
NUTR 560	Therapeutic Nutrition (3)
NUTR 570	Nutrition Communications and Counseling (3)
NUTR 580	Food systems and health w/Lab (3)
NUTR 590	Nutrition Research Methods (3)
NUTR 691	Nutrition Thesis - Part I (1) (optional)
NUTR 692	Nutrition Thesis - Part II (1) (optional)
NUTR 693	Nutrition Thesis - Part III (1) (optional)

MAJOR COURSE REQUIREMENTS – Exercise Science & Nutrition Track – Graduate Dietetics Option

ND 601	Physiological Basis of Nutrition I (3)
ND 602	Physiological Basis of Nutrition II (3)
ND 603	Nutritional Biochemistry I - Macronutrients (3)
ND 604	Nutritional Biochemistry II - Micronutrients (3)
ND 605	Nutrition through the Lifecycle (3)
ND 606	Adv Sports Nutrition and E-Metabolism w/Lab (3)
ND 607	Adv Leadership/Management for Allied Healthcare Careers (3)
ND 608	Principles of foods and management w/Lab (3)
ND 609	Medical Nutrition Therapy
ND 610	Nutrition Communications and Counseling
ND 611	Food systems and health w/Lab (3)
ND 612	Nutrition Research Methods (3)
ND 615	RWPE - Community Nutrition SEL RWP (1)
ND 616	RWPE - Food Systems Management SEL RWPE (1)
ND 617	RWPE - Clinical Nutrition SEL RWPE (1)
ND 691	Nutrition Thesis - Part I (1) (optional)
ND 692	Nutrition Thesis - Part II (1) (optional)
ND 693	Nutrition Thesis - Part III (1) (optional)

Suggested Curriculum Sequence – Exercise Science & Nutrition Track

Undergraduate Portion

First Year					
Fall		Credits		**Spring**	Credits
CHEM 113/L	General Chemistry I w/ Lab	4	CHEM 114/L	General Chemistry II w/ Lab	4
EXSC 101	Introduction to Exercise Science	3	EXSC 150	Prev., Treat., & E. Care of Injuries	3
HCE 101	Holy Cross Experience	1	CORE	*Writing*	3
SOC 101	Introduction to Sociology	3	CORE	*Oral Communication*	3
CORE	*Literature*	3	MATH 126	Introduction to Statistics	3
CORE	*Quest for Meaning*	3			
		17			**16**
Second Year					
Fall		Credits		**Spring**	Credits
EXSC 219/L	Anatomy & Physiology I w/ Lab	4	EXSC 220/L	Anatomy & Physiology II w/ Lab	4
EXSC 245	Principles Of Health	3	EXSC 290	Exercise Physiology	3
EXSC 280	Clinical Kinesiology & Anatomy	3	CORE	*Global Connections*	3
CORE	*The Arts*	3	CORE	*Philosophical Investigations*	3
CORE	*Introduction to Philosophy*	3	CORE	*History*	3
		16			**16**
Third Year					
Fall		Credits		**Spring**	Credits
CHEM 241/L	Organic Chemistry I w/ Lab	4	EXSC 310	Assessment & Meas. in Ex.	3
EXSC 309	Electrocardiology	3	EXSC 310L	Assessment & Meas. in Ex. Lab	1
EXSC 330	Alternative Methods of Exercise	3	EXSC 320	Exercise and Special Populations	3
EXSC 360	Advanced Exercise Physiology	3	EXSC 370	Biochemistry For Exercise & Nutrition	3
CORE	*Theology and Wisdom*	3	CORE	*Intercultural Competence*	3
			CORE	*Theology and the Good Life*	3
		16			**16**

TOTAL CREDITS: 97

Suggested Curriculum Sequence – Exercise Science & Nutrition Track

Graduate Portion – Nutrition Science Option

First Year					
Fall		Credits	**Spring**		Credits
Fall Session A			*Spring Session A*		
NUTR 501	Physiological Basis of Nutrition I	3	NUTR 511	Nutritional Biochemistry I - Macronutrients	3
Fall Session B			*Spring Session B*		
NUTR 502	Physiological Basis of Nutrition II	3	NUTR 512	Nutritional Biochemistry II - Micronutrients	3
			NUTR 691	Nutrition Thesis - Part I (optional)	1
		6			**7**
Summer		Credits			
Summer Session A					
NUTR 590	Nutrition Research Methods	3			
NUTR 692	Nutrition Thesis - Part II (optional)	1			
Summer Session B					
NUTR 570	Nutrition Communications and Counseling	3			
		7			
Second Year					
Fall		Credits	**Spring**		Credits
Fall Session A			*Spring Session A*		
NUTR 520	Nutrition through the Lifecycle	3	NUTR 560	Nutrition and Chronic Disease	3
Fall Session B			*Spring Session B*		
NUTR 550	Principles of foods and management wLab	3	NUTR 530	Adv Sports Nutrition and E-Metabolism wLab	3
		6			**6**
Summer		Credits			
Summer Session A					
NUTR 580	Food systems and health wLab	3			
Summer Session B					
NUTR 535	Adv Leadership/Mgmt for Allied Healthcare Careers	3			
NUTR 693	Nutrition Thesis - Part III (optional)	1			
		7			

TOTAL CREDITS: 39 (136 Combined UG + GR)

Suggested Curriculum Sequence - Exercise Science & Nutrition Track

Graduate Portion – Nutrition and Dietetics Option

First Year					
Fall		Credits	Spring		Credits
Fall Session A			*Spring Session A*		
ND 601	Physiological Basis of Nutrition I	3	ND 603	Nutritional Biochemistry I - Macronutrients	3
Fall Session B			*Spring Session B*		
ND 602	Physiological Basis of Nutrition II	3	ND 604	Nutritional Biochemistry II - Micronutrients	3
			ND 691	Nutrition Thesis - Part I (optional)	1
		6			7
Summer		Credits			
Summer Session A					
ND 612	Nutrition Research Methods	3			
ND 615	RWPE - Community Nutrition SEL RWP	1			
ND 692	Nutrition Thesis - Part II (optional)	1			
Summer Session B					
ND 610	Nutrition Communications and Counseling	3			
		8			

Second Year					
Fall		Credits	Spring		Credits
Fall Session A			*Spring Session A*		
ND 605	Nutrition through the Lifecycle	3	ND 609	Medical Nutrition Therapy	3
Fall Session B			*Spring Session B*		
ND 608	Principles of foods and management w/Lab	3	ND 606	Adv Sports Nutrition and E-Metabolism w/Lab	3
ND 616	RWPE - Food Systems Management SEL RWPE	1	ND 617	RWPE - Clinical Nutrition SEL RWPE	1
		7			7
Summer		Credits			
Summer Session A					
ND 611	Food systems and health w/Lab	3			
Summer Session B					
ND 607	Adv Leadership/Mgmt. for Allied Healthcare Careers	3			
ND 693	Nutrition Thesis - Part III (optional)	1			
		7			

TOTAL CREDITS: 42 (139 Combined UG + GR)

EXERCISE SCIENCE & OCCUPATIONAL THERAPY TRACK (3+3)

Description

The 3+3 BS/OTD program requires six years of academic studies, including six months of clinical fieldwork and a 14-week doctoral capstone experience. This accelerated degree program leads to an entry-level Clinical Doctorate after graduating with a Bachelor of Science in Exercise Science with a Minor in Neuroscience from King's College. The Post-Baccalaureate entry into the OTD program (OTD only) requires three years of academic studies, including 6 months of clinical fieldwork and a 14-week doctoral capstone leading to a Clinical Doctorate with a Specialization in Leadership.

Careers

Occupational therapists help people of all ages to fully engage in their daily lives, from their work and recreation to activities of daily living like getting dressed, cooking, eating and driving.

If you choose this field, there are many kinds of practice available for you to specialize in. You may decide to work with premature babies at a pediatric hospital or children with cerebral palsy or Down syndrome. Many practitioners choose to help children thrive in the "occupations" of childhood, which include learning, playing and growing.

Therapists also work in schools with students who have learning disabilities or behavioral problems. Or you may be interested in working with older people in their homes or nursing homes, helping them to recover from strokes or deal with Alzheimer's disease. Some practitioners choose to help accident victims to regain needed skills or offer assistance to people with mental illness.

There are new specialties too, like training workers to use the correct ergonomics, helping people with low vision maintain their independence, making buildings and homes more accessible, evaluating and training older drivers and promoting health and wellness.

MAJOR COURSE REQUIREMENTS – Exercise Science & Occupational Therapy Track – Undergraduate Portion

EXSC 219	Anatomy & Physiology I (3)
EXSC 219L	Anatomy & Physiology I Lab (1)
EXSC 220	Anatomy & Physiology II (3)
EXSC 220L	Anatomy & Physiology II Lab (1)
CHEM 107	General, Organic, and Biochem. (3)
CHEM 107L	General, Organic, and Biochem. Lab (1)
EXSC 150	Prev., Treatment & Em. Care (3)
EXSC 280	Clinical Kinesiology & Anatomy (3)
EXSC 290	Exercise Physiology (3)
EXSC 309	Electrocardiology (3)
EXSC 310	Assessment & Measurements in Ex. (3)
EXSC 310L	Assessment & Measurements in Ex. Lab (1)
EXSC 320	Exercise and Special Populations (3)
EXSC 330	Alternative Methods of Exercise (3)
MATH 126	Introduction to Statistics (3)*
OT 101	Introduction to Exercise Science and OT (3)
OT 102	Foundations of OT Practice: Professionalism in OT (1)
OT 103	Foundations of OT Practice: OTPF & Medical Term. (1)
OT 210	Diversity, Equity, Inclusion & Cultural Dynamic (3)
OT 410	Foundations of OT Practice: Essentials of OT (3)
OT 480	Research Methods (3)
PHYS 108	Applied Biophysics (3)
PHYS 108L	Applied Biophysics Lab (1)
PSYC 101	Introduction to Psychology (3)
PSYC 351	Psychopathology (3)
PSYC 355	Develop. Psyc: Children & Adolescence (3)
PSYC 356	Develop. Psyc: Adulthood & Aging (3)
SOC 101	Introduction of Sociology (3)*

MAJOR COURSE REQUIREMENTS – Exercise Science & Occupational Therapy Track – Graduate Portion

EXSC 400	Sci. of Strength & Cond. (3)
EXSC 400L	Sci. of Strength & Cond. Lab (1)
EXSC 460	Correct. Ex. Training (2)
OT 405	OS and Occup. Analysis (3)
OT 405L	OS and Occup. Analysis Lab (1)
OT 411	Neuroscience I (3)
OT 412	Neuroscience II (3)
OT 425	Occ. Engmnt. & Theories (3)
OT 440	Interv. For Occ. Perf. (3)
OT 440L	Interv. For Occ. Perf. Lab (1)
OT 450	Cond., Assess., Clinical (3)
OT 450L	Cond., Assess., Clinical Lab (1)
OT 460	Foundations of OT Practice: Document. (1)
OT 470	Adv. Human Anatomy (3)
OT 475	Enviro. & Technologies (3)
OT 501	Level 1 FW I Psycho-Social Impacts Of Occupational Performance (2)
OT 502	Level 2 FW 2 (2)
OT 510	Mental Health Psycho-Social & Community Based (3)
OT 515	Res. & Evid. Based Prac. (4)
OT 530	Eval. & Intervention for Occ. Performance in Rehabilitation (4)
OT 530L	Eval. & Intervention for Occ. Performance in Rehabilitation Lab (1)

OT 550	Iss. & Trends in OS & OT Prac. (3)
OT 560	Clin. Leader., Mgmnt & Ethics (3)
OT 570	Leadership & Mentor. Prog. (1)
OT 575	Culminating Practical (0)
OT 580	Eval. & Inter. For Occ. (4)
OT 580L	Eval. & Inter. For Occ. Lab (2)
OT 585	Foundations of OT Practice 2 Level II (2)
OT 591-594	(3)
OT 595	Level 2 FW (4)
OT 596	FW Level 2A (1)
OT 597	FW Practice Reflections (0)
OT 599	Exam Prep (3)
OT 600	Dr. Capstone & Proposal Prep (3)
OT 605	Prog. Eval. & Development (3)
OT 610	Capstone: Development (2)
OT 615	Adv. Advocacy & Leadership (3)
OT 620	Adv. Clin. Scholarship, Diss. And Outcomes (3)
OT 625	Adv. Teaching & Learning (3)
OT 650	Capstone Exp. & Impl. (6)
OT 670	Adv. Leadership & Mentoring (1)
OT 675	Doctoral Portfolio (2)

Additional Specialization in:
Innovation (program/product development)
Social Justice
Neurodiversity
Trauma Informed Care

Suggested Curriculum Sequence – Exercise Science & Occupational Therapy Track

Undergraduate Portion

Fall		Credits	Spring		Credits
OT 101	Introduction to Exercise Science	3	EXSC 150	Prev., Treat., & E. Care of Injuries	3
OT 102	Foundation of OT Practice: Professionalism in OT	1	CHEM 107	General, Organic, and Biochemistry	3
SOC 101		3	CHEM 107L	General, Organic, and Biochem. Lab	1
CORE		3	PSYC 101	Introduction to Psychology	3
CORE		3	CORE		3
CORE		3	CORE		3
HCE 101	Holy Cross Experience	1	OT 103	Found. of OT Practice: OTPF & Medical Term	1
		17			**17**
Second Year					
Fall		Credits	**Spring**		Credits
EXSC 219	Anatomy & Physiology I	3	EXSC 220	Anatomy & Physiology II	3
EXSC 219L	Anatomy & Physiology I Lab	1	EXSC 220L	Anatomy & Physiology II Lab	1
EXSC 280	Clinical Kinesiology & Anatomy	3	EXSC 290	Exercise Physiology	3
PHYS 108	Applied Biophysics	3	MATH 126	Introduction to Statistics	3
PHYS 108L	Applied Biophysics Lab	1	CORE		3
PSYC 351	Psychopathology	3	CORE		3
OT 210	Diversity, Equity, Inclusion & Cultural Dynamic	3			
		17			**16**
Third Year					
Fall		Credits	**Spring**		Credits
EXSC 309	Electrocardiology	3	EXSC 310	Assessment & Meas. in Ex.	3
EXSC 330	Alternative Methods of Exercise	3	EXSC 310L	Assessment & Meas. in Ex. Lab	1
OT 480	Research Methods	3	EXSC 320	Exercise and Special Populations	3
PSYC 355	Develop. Psyc: Children & Adolescence	3	PSYC 356	Develop. Psych: Adulthood and Aging	3
CORE		3	CORE		3
CORE		3	CORE		3
			OT 410	Foundations of OT Practice: Essentials of OT	3
		18			**19**

TOTAL CREDITS: 103

Suggested Curriculum Sequence – Exercise Science & Occupational Therapy Track
Graduate Portion

First Year - OTD (Professional Phase)					
Fall		Credits	**Spring**		Credits
EXSC 400	Science of Strength & Conditioning	3	EXSC 460	Corrective Ex. Training	2
EXSC 400L	Science of Strength & Conditioning Lab	1	OT 412	Neuroscience II	3
OT 411	Neuroscience I	3	OT 425	Occ. Engmnt. & Theories	3
OT 470	Adv. Human Anatomy	3	OT 450	Cond., Assess., Clinical	4
OT 460	Fndn. In OT. Prac.: Docum.	1	OT 450L	Cond., Assess., Clinical Lab	1
OT 475	Enviro. & Technologies	3	OT 480	Interv. For Occ. Perf.	3
OT 405	OS and Occup. Analysis	3	OT 480L	Interv. For Occ. Perf. Lab	1
OT 405L	OS and Occup. Analysis Lab	1			
		18			**18**
Summer		Credits			
OT 510	Mental Health Psycho-Social & Community Based	3			
OT 501	Level 1 FW I Psycho-Social Impacs of Occ. Perf.	2			
		5			
Second Year - OTD (Advanced Professional Phase)					
Fall		Credits	**Spring**		Credits
OT 515	Res. & Evid. Based Prac.	4	OT 580	Eval. & Inter. For Occ. For Child., Adoles., & Fam.	4
OT 530	Eval. & Intervention for Occ. Perf. In Rehab.	4	OT 580L	Eval. & Inter. For Occ. For Child., Adoles., & Fam. Lab	2
OT 530L	Eval. & Intervention for Occ. Perf. In Rehab. Lab	1	OT 600	Dr. Capstone & Proposal Prep	3
OT 550	Iss. & Trends in OS & OT Prac.	3	OT 605	Prog. Eval & Development	3
OT 560	Clin. Leader, Mgmnt. & Ethics	3	OT 585	Found. Of OT Prac. 2 Level II	2
OT 575	Culminating Practical (P/F)	0	OT 570	Leadership & Mentor. Prog.	1
OT 570	Leadership & Mentor. Prog.	1	OT 502	Level 1 FW 2 (fall or spring)	2
OT 502	Level 1 FW 2 (fall or spring)	2			
		16-18			**15-17**
Summer		Credits			
OT 595	Level 2 FW	4			
OT 596	FW Level 2A	1			
OT 597	FW Practice Reflections	0			
OT 570	Leadership & Mentor. Prog.	1			
OT 591-594		3			
OT 591-594		3			
		9-12			
Third Year - OTD (Professional Didactic Phase)					
Fall		Credits	**Spring**		Credits
OT 596	FW Level 2 Term A	3	OT 650	Capstone Exp. & Impl.	6
OT 597	FW Practice Reflections	0	OT 599	Exam Prep	2
OT 610	Capstone: Development	2	OT 675	Doctoral Portfolio	3
OT 615	Adv. Advocacy & Leadership	3	OT 670	Adv. Leadership & Mentoring Program	1
OT 620	Adv. Clin. Scholarship, Diss. And Outcomes	3	OT 591-594		3
OT 625	Adv. Teaching & Learning	3			
OT 670	Adv. Leadership & Mentoring Program	1			
		15			**12-15**

TOTAL CREDITS: 108-118 (211-221 combined UG+GR)

EXERCISE SCIENCE & CHIROPRACTIC TRACK (3+4)

Description

King's College has articulation agreements with two major chiropractic colleges: Logan University and Northeast College of Health Sciences. Students that matriculate at King's College for a minimum of three academic years in the "Exercise Science & Chiropractic" track of the Exercise Science major will be automatically admitted to the Doctor of Chiropractic Program at either institution. Completion of the first year of the respective Doctor of Chiropractic program will result in the award of the Bachelor of Science in Exercise Science degree from King's College (provided the below academic standards are met). This mutual agreement ensures that students interested in Chiropractic and Exercise Science are able to save one year of undergraduate education and tuition (7 instead of 8 total years), as well as gain guaranteed admission to a Doctor of Chiropractic degree program.

Requirements

- While at King's College, students will complete all required College Core courses in the King's College curriculum as stated in the catalog of King's College.

- Students will complete the course of study with a cumulative grade point average of at least 3.00, and earn a minimum of "C" (2.0) in major courses.

- Students will furnish Northeast College of Health Sciences or Logan University with a letter of intent identifying themselves as pre-chiropractic students and identifying the desired date of admission. Students must furnish such a letter of intent *no later than* the end of their first year of studies at King's College.

- Students will make applications to one of the two chiropractic colleges *one year prior to their desired term of entry* and will complete all procedures required of candidates for admission, including submission of official college transcripts, furnishing of three character references (at least one from a Doctor of Chiropractic and two from faculty members at King's College), and satisfactory participation in an admissions interview.

- Students enrolled in the joint "3 + 4" program who successfully complete all courses offered during the first year at the respective chiropractic school with a grade point average of at least 2.00, will receive the B.S. degree from King's College upon submission of an official transcript from the chiropractic school to King's College and completion of the King's College application for graduation and payment of appropriate fees on a timely basis.

- Under this joint program, each institution shall directly charge the student for courses enrolled in at that institution. Students in the joint program may continue to utilize King's College's library without charge and may take advantage of other benefits offered to students at King's College as long as they obtain a King's College ID while enrolled in the chiropractic college portion of the program.

- In recognition of students' successful completion of the program and procedures outlined above, Northeast College of Health Science and Logan University shall accept all students who earn a GPA of 3.00 or above for the entrance date of their choice.

Careers

Although the main goal of the track is to obtain both a Bachelor of Science in Exercise Science and Doctor of Chiropractic degree in the pursuit of a chiropractic career, graduates of both degree program have a multitude of career options provided by each degree. The Doctor of Chiropractic degree allows students pursue chiropractic licensure which allows graduates to work as a chiropractor in a variety of settings provided by said profession. Additionally, the Exercise Science degree presents the following additional career options:

- Sports Performance Coaches with professional or collegiate teams
- Sports Medicine Personnel with professional of collegiate team
- Small business owners and entrepreneurs in the exercise science industry
- Sports and wellness program instructors and directors
- Researchers in companies that make physiological equipment for testing and evaluation
- Managers and exercise leaders in corporate wellness programs
- Instructors in health and fitness clubs
- Supervisors of specialized health, fitness, wellness, or lifestyle programs in correctional services, police, fire, and emergency response organizations
- Fitness instructors in YMCAs, spas and resort centers
- Fitness directors and managers in the military
- Exercise technologists in cardiology suites
- Fitness instructors and supervisors at the state, regional, and national levels in sports and athletic programs
- Sports consultants in areas of psychology and training, biomechanics, efficiency and metabolism, and nutrition

MAJOR COURSE REQUIREMENTS – Exercise Science & Chiropractic Track

26 course – 62 credits

BIOL 113	Evolution and Diversity (3)
BIOL 113L	Evolution and Diversity Lab (1)
BIOL 210	Organisms and Their Ecosystems (3)
BIOL 210L	Organisms and Their Ecosystems Lab (1)
EXSC 219	Anatomy & Physiology I (3)
EXSC 219L	Anatomy & Physiology I Lab (1)
EXSC 220	Anatomy & Physiology II (3)
EXSC 220L	Anatomy & Physiology II Lab (1)
CHEM 107	General, Organic, and Biochem. (3)
CHEM 107L	General, Org., and Biochem. Lab (1)
EXSC 101	Introduction to Exercise Science (3)
EXSC 150	Prevention, Treatment & Emergency Care (3)
EXSC 280	Clinical Kinesiology & Anatomy (3)
EXSC 290	Exercise Physiology (3)
EXSC 309	Electrocardiology (3)
EXSC 310	Assessment & Measurements in Exercise (3)
EXSC 310L	Assessment & Measurements in Exercise Lab (1)
EXSC 320	Exercise and Special Populations (3)
EXSC 330	Alternative Methods to Exercise (3)
MATH 126	Introduction to Statistics (3)*
PHYS 111	Physics for the Life Sciences I (3)
PHYS 111L	Physics for the Life Sci. I Lab (1)
PHYS 112	Physics for the Life Sciences II (3)
PHYS 112L	Physics for the Life Sci. II Lab (1)
PSYC 101	Introduction to Psychology (3)
SOC 101	Introduction to Sociology (3)*

The First Year at either Logan University or Northeast College of Health Science is counted toward the completion of the B.S. degree in Exercise Science from King's College.

*****Cross listed under core and major requirements

Suggested Curriculum Sequence – Exercise Science & Chiropractic Track

First Year					
Fall		Credits	**Spring**		Credits
EXSC 101	Introduction to Exercise Science	3	EXSC 150	Prev., Treat., & E. Care of Injuries	3
HCE 101	Holy Cross Experience	1	CHEM 107	General, Organic, and Biochemistry	3
SOC 101	Introduction to Sociology	3	CHEM 107L	General, Organic, and Biochem. Lab	1
CORE	*Quest for Meaning*	3	PSYC 101	Introduction to Psychology	3
CORE	*Writing*	3	CORE	*Literature*	3
CORE	*Oral Communication*	3	CORE	*The Arts*	3
		16			**16**
Second Year					
Fall		Credits	**Spring**		Credits
EXSC 280	Clinical Kinesiology & Anatomy	3	EXSC 290	Exercise Physiology	3
EXSC 219	Anatomy & Physiology I	3	EXSC 220	Anatomy & Physiology II	3
EXSC 219L	Anatomy & Physiology I Lab	1	EXSC 220L	Anatomy & Physiology II Lab	1
PHYS 111	Physics for the Life Sciences I	3	PHYS 112	Physics for the Life Sciences II	3
PHYS 111L	Physics for the Life Sciences I Lab	1	PHYS 112L	Physics for the Life Sciences II Lab	1
CORE	*Intercultural Competence*	3	CORE	*Philosophical Investigations*	3
CORE	*Global Connections*	3	CORE	*History*	3
		17			**17**
Third Year					
Fall		Credits	**Spring**		Credits
EXSC 309	Electrocardiology	3	EXSC 310	Assessment & Meas. in Ex.	3
EXSC 330	Alternative Methods of Exercise	3	EXSC 310L	Assessment & Meas. in Ex. Lab	1
BIOL 113	Evolution & Diversity	3	EXSC 320	Exercise and Special Populations	3
BIOL 113L	Evolution & Diversity Lab	1	BIOL 210	Organisms & Their Ecosystems	3
CORE	*Introduction to Philosophy*	3	BIOL 210L	Organisms & Their Ecosystems Lab	1
CORE	*Theology and Wisdom*	3	MATH 126	Introduction to Statistics	3
			CORE	*Theology and the Good Life*	3
		16			**17**

TOTAL CREDITS: 99

*Additional coursework of one year at Logan University or Northeast College of Health Science required to obtain the Bachelor of Exercise Science degree from King's College

**For exact curricula of the Doctor of Chiropractic curriculum, please consult Logan University or Northeast College of Health Sciences directly

***Student must send a letter of intent to NYCC within the first year of being in this track. Please contact your advisor for more information.

EXERCISE SCIENCE COURSE DESCRIPTIONS

EXSC 101: Introduction to Exercise Science (3)
This course introduces students to the exercise science discipline. Students will examine concepts including professionalism, ethics, certification and licensure, employment opportunities and scientific foundations of the various sub-disciplines. Basic foundations of exercise science will be emphasized, as well as career planning and professional development. This course includes an extensive guest speaker series by professionals in the field of exercise science, as well as hands-on group exercise.
Cross-listed as OT 101

EXSC 150: Prevention, Treatment, and Emergency Care of Injuries (3)
This course will introduce students to emergency and immediate care of injuries. The course will also provide an introduction to the mechanisms of injury, signs and symptoms, and management procedures for common sport/activity-related injuries. Medical emergencies, physical trauma, various disease pathologies, bleeding, respiratory and cardiac emergencies will be explored. The student will also learn emergency bandaging for open wounds and the use of a stethoscope, sphygmomanometer, and a pulse oximeter in a practical setting. Upon completion of the course, students will be certified in American Red Cross First Aid and CPR/AED for Professional Rescuers and Health Care Providers.

EXSC 245: Principles of Health (3)
The student will be introduced to techniques and principles to improve an individual's mental and physical health. Human sexuality and personal relations will be explored. The effects of legal and illegal drugs on the body will be examined. Systemic and acquired diseases and their effects on the human body will be investigated. The final areas of emphasis for this course will be to study the effects of aging, dying, and the various types of medical services available to the consumer.

EXSC 280: Clinical Kinesiology & Anatomy (3)
The student will primarily be exposed to functional human anatomy focusing on skeletal muscle origin, insertion, action, and nerve supply. In addition, the student will develop an understanding and appreciation of fundamental principles that relate to human movement and, in particular, an understanding of those principles that apply to efficient, skilled, and safe movement. The student will develop the ability to functionally and mechanically analyze typical and irregular or potentially harmful movements in terms of principles derived primarily from anatomy, physiology and biomechanical physics.

EXSC 290: Exercise Physiology (3)
This course presents the student with a comprehensive study of the human body's responses to exercise. Topics include functions and adaptations of the nervous and muscular systems, principles of bioenergetics and metabolism, as well as exploration of acid-base balance as it pertains to exercise.
Pre-requisite – EXSC 219/L

EXSC 309: Electrocardiology (3)
This course is designed to provide students with the basic knowledge of the structure and function of the heart and circulatory system. Students will understand the electrical and mechanical events of the cardiac cycle, as well as develop an understanding heart and circulatory diseases and conditions. Additionally, students will set-up electrocardiograph (ECG) monitoring systems and record and interpret ECG data through administration of 12-lead ECGs at rest. Finally, students will interpret normal and abnormal heart rhythms and artifacts.
Pre-requisite – EXSC 290 and EXSC 220/L

EXSC 310/310L: Assessment & Prescription in Exercise/Lab(3)/(1)
This course presents practical and theoretical knowledge about the various modes and protocols used in graded exercise testing, basic electrocardiography and exercise prescription based on testing results. Laboratory sessions provide opportunities for students to gain practical experience in performing various physiological testing procedures as well as various methods of fitness testing. The course focuses on developing expertise in preparation of clients for fitness testing, utilization of various modes of exercise testing and test interpretation. The course will also prepare students to take the ACSM certified personal trainer exam.
Pre-requisite - EXSC 150 and EXSC 309

EXSC 320: Exercise and Special Populations (3)

This course provides an in-depth study of changes that occur due to acute exercise, chronic exercise, and aging. Students will examine the physiologic differences among individuals with various medical conditions. Behavioral modification and counseling skills for various populations are also developed.
Pre-requisite - EXSC 150 and EXSC 309

EXSC 325: Nutrition and the Athlete (3)
The student will understand the relationship between physical fitness, physical performance, injury prevention, and nutritional intake. The student will understand how to conduct a nutritional analysis and how to evaluate various diets to provide appropriate dietary recommendations. The student will develop an understanding of how to improve physical performance and overall health through proper utilization of food, how to identify improper eating habits, the effects of food supplements, techniques and effectiveness of carbohydrate loading, and the construction of pre-event and post-event meals.

EXSC 330: Alternative Methods of Exercise (3)
This course examines different exercise modalities including group fitness activities and adapted physical activities such as yoga, pilates, aerobic, aquatics, boxing, boot camp, chair aerobics etc. Students will be exposed to the history, principles, and design guidelines of each activity. Additionally, students will learn and demonstrate proper coaching principles and concepts. Students will be required to design and lead an exercise class themselves as the culminating project.
Pre-requisite - EXSC 280

EXSC 360: Advanced Exercise Physiology (3)
This course explores advanced bodily responses to exercise and adaptations, specifically of the respiratory and circulatory systems, hormonal regulation and responses to exercise, adaptations to aerobic and anaerobic exercise, as well as special exercise considerations for females, children, and older individuals.
Pre-requisite - EXSC 290

EXSC 370: Biochemistry for Exercise and Nutrition (3)
This course examines the application of organic chemistry and biochemistry to food processing and exercise metabolism. Basic chemical principles will be explored in depth. Basic nutrient composition as it pertains to organic chemistry will be explored. The role of nutrients for exercise metabolism from an organic chemistry perspective will be applied to various exercise scenarios.
Pre-requisite - EXSC 360

EXSC 400/400L: Science of Strength & Conditioning/Lab (3)/(1)
This course will expose students to the techniques and training principles of modern strength and conditioning as it applies to athletic and sport settings. Principles of strength, power, plyometrics, speed, speed endurance, endurance, mobility, flexibility, and balance training will be emphasized. Students will learn how to perform an athletic needs analysis based on observation and review of scientific literature, as well as program design based on scientific literature and applied practice. Lab activities will include the performance and application of strength training, plyometrics, speed training, and speed endurance training. Students will also be prepared to take the NSCA Certified Strength and Conditioning Specialist exam.
Pre-requisite - EXSC 280, EXSC 310/L, EXSC 330

EXSC 440: Administration & Organization for Exercise Facilities (3)
The student will gain an understanding of policies and procedures in the operation of an exercise/testing facility. Students will study position statements that describe various aspects of industry standards, appropriate staff to client ratios, budgeting, management strategies of staff and organizational requirements of operating various exercise/fitness facilities. Students will learn appropriate evaluation and care of equipment for exercise and testing and appropriate record keeping and budgeting for facilities. Students will study legal considerations of all aspects of exercise and fitness facilities.

EXSC 450: Olympic Weightlifting (2)
This course will expose students to an in-depth understanding of Olypmic Weightlifting exercises and programming. Students will learn all variations of the Snatch and Clean & Jerk and various accessory and teaching exercises. Students will create their own Olympic Weightlifting programs that will include progression and detailed programming. Successful demonstration of the Olympic Lifts will be required.
Pre-requisite - EXSC 400/L

EXSC 460: Corrective Exercise Training (2)
This course will expose students to the corrective exercise continuum in order to prescribe exercise for clients that have muscle imbalances or who have come off an injury. This system of training uses corrective exercises to improve movement capabilities and decrease the risk for injury. Students will also be prepared to take the NASM corrective exercise specialist certification exam.
Pre-requisite - EXSC 400/L

EXSC 480: Research & Design (2)
This course is designed to help students understand, evaluate and conduct exercise science research. Students will examine the basic concepts and procedures for conducting research, acquire skills necessary for interpreting research, and develop an understanding of how to apply research findings. Students will perform several journal article discussions culminating in a scientific article presentation and analysis.
Pre-requisite – MATH 126.
Cross-listed as OT 480

EXSC 491: Sport Psychology (3)
This course is designed to help students understand, evaluate and conduct exercise science research. Students will examine the basic concepts and procedures for conducting research, acquire skills necessary for interpreting research, and develop an understanding of how to apply research findings. Students will perform several journal article discussions culminating in a scientific article presentation and analysis.
Pre-requisite – PSYC 101 and EXSC 310.

EXSC 499: Field Experience/Internship (3)
Internship experience designed to provide students with an opportunity to gain real-world experience in exercise science settings while completing all of the assignments found in the Exercise Science Program internship handbook.
Pre-requisite - Successful completion of all 300-level exercise science courses

FREQUENTLY ASKED QUESTIONS

What is exercise science?

Exercise science deals with the study of both the immediate and long term effects of physical activity focusing on the "how" and "why" the body responds to physical activity. Exercise Science encompasses a wide variety of disciplines including, but not limited to: Biomechanics, Sports Nutrition, Sport Psychology, Motor Control/Development, and Exercise Physiology. The study of these disciplines is integrated into the academic preparation of Exercise Science professionals. Exercise Science professionals work in the health and fitness industry, and are skilled in evaluating health behaviors and risk factors, conducting fitness assessments, writing appropriate exercise prescriptions, and motivating individuals to modify negative health habits and maintain positive lifestyle behaviors for health promotion. They conduct these activities in university, corporate, commercial or community settings where their clients participate in health promotion and fitness-related activities. (Source - CAAHEP)

How is exercise science different than athletic training/physician assistant studies?

Exercise Science is a science-based degree that prepares you to work in many different types of health, fitness and medical fields. Athletic training/physician assistant studies prepare individuals to function in very specific professional roles within the allied healthcare field.

Why study exercise science at King's College?

King's college has a long track record of producing graduates that go on to meaningful careers that cultivate and enrich lives of others.

If you are interested in attaining the knowledge, skills, and abilities to succeed as a health, exercise, and fitness professional, and are committed to assisting others in improving their health and physical fitness by increasing their participation in safe and effective exercise.

Are there other requirements?

Yes. You must acquire certification in Cardiopulmonary Resuscitation (CPR), Automated External Defibrillator (AED) for the entirety of the academic program. This certification will be earned in the spring semester of the freshmen year and renewed your junior year.

What is a national certification? Does the EXSC curriculum prepare me for it?

Most employers expect Exercise Science professionals to have earned professional certification from a nationally recognized organization. Such organizations are:

National Strength and Conditioning Association

- Certified Strength and Conditioning Specialist (NSCA-CSCS)
- Certified Special Population Specialist (NSCA-CSPS)
- Certified Personal Trainer (NSCA-CPT)
- Tactical Strength and Conditioning – Facilitator (NSCA-TSAC-F)

American College of Sports Medicine

- Certified Personal Trainer (ACSM-CPT)
- Certified Group Exercise Instructor (ACSM-GEI)
- Certified Exercise Physiologist (ACSM-EP)
- Certified Clinical Exercise Physiologist (ACSM-CEP) [requires clinical hours]
- Certified Inclusive Fitness Trainer (ACSM-CIFT)
- Certified Cancer Exercise Trainer (ACSM-CET)

National Academy of Sports Medicine

- Certified Personal Trainer (CPT)
- Corrective Exercise Specialist (CES)
- Performance Enhancement Specialist (PES)
- Fitness Nutrition Specialist (FNS)
- Sports Nutrition Specialist (SNS)
- Group Personal Training Specialist (GPTS)
- Mixed Martial Arts Conditioning Specialist (MMACS)
- Weight Loss Specialist (WLS)
- Women's Fitness Specialist (WFS)
- Senior Fitness Specialist (SFS)
- Youth Exercise Specialist (YES)
- Golf Fitness Specialist (GFS)

Students may be prepared to sit for various certification exams at the conclusion of the Exercise Science curriculum. More information will be presented during actual course work.

Pre-requisite Flow Chart