



RUTGERS

School of Arts and Sciences
DEPARTMENT OF KINESIOLOGY AND HEALTH

Exercise Science- Exercise Physiology

Why Exercise Physiology/Kinesiology?

Exercise physiologists design exercise and rehabilitation programs to help individuals get fitter and to avoid or recover from medical conditions such as obesity, arthritis, diabetes, cancer, osteoporosis, depression, asthma and cardiovascular diseases. Kinesiology researchers engage in an interdisciplinary approach to the study of human movement, investigating the mechanical, neurological, biochemical, physiological, and behavior components of human movement.

What jobs and graduate programs can I expect after graduation?

M.S. or Ph.D. in:	Research in:	Careers:	-Clinical Rehabilitation
- Kinesiology	Psychology	-Exercise Physiologist	-Personal Trainer
-Exercise Physiology	Psychophysiology	Clinical exercise physiologists often work with people who are dealing with chronic health issues that can be improved through medically supervised physical activity	
-Exercise Psychology	Special Populations	-Wellness Coordinator	
-Exercise Science	Cardiovascular Disease	-Clinical Research Assistant	
	Metabolism	-Strength and Conditioning Coach	
-Gap year before Graduate School	Youth Development		
	Gerontology		
	Nutrition		

What can I be doing outside from the academic requirements to prepare for a Career in Exercise Physiology?

- Join a club: Health Occupations Students of America, Health Professions United, Healthy Kids of New Brunswick, Kinesiology and Health Club, Minority Association of Pre-Health Students, Red Cross Club, Rutgers Physical Therapy Club, Rutgers Against Hunger, Women in Health Professions,
- Gain as much experience as possible through volunteering, joining research labs
- Build relationships with professors
- Take time to research graduate programs
- Consider a Gap Year, or a Masters/Ph.D program
- Secure letters of recommendation before application
- Independent Study for a semester with an Exercise Science faculty
- Participate in the Honors Research Program



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What Electives Should I Take if I Want to go into Exercise Physiology?

The following courses are great to take to enhance your Exercise Science Curriculum:

01:377:160- Introduction to Physical Therapy

01:377:161- Observation in Physical Therapy

01:377:246- Safety Education and Emergency Care

01:377:303- Neuromechanical Kinesiology

01:377:324- Movement Experiences for Individuals with Disabilities

01:377: 381- Metabolic Adaptation to Exercise

01:377:362- Independent Study in Exercise Science

Contact Suggestions for Independent Study:

Dr. Sara Campbell Dr. Steven Malin

Dr. Peter Kokkinos Dr. Brandon Alderman

01:377:454- Advanced Exercise Physiology

HELPFUL WEBSITES

Graduate Record Examination (GRE)- <https://www.ets.org/gre>

American Kinesiology Association- <https://www.americankinesiology.org/>

National Academy of Kinesiology- <https://nationalacademyofkinesiology.org/>

Explore Health Careers: <https://explorehealthcareers.org/career/sports-medicine/exercise-physiologist/>

<https://www.bls.gov/ooh/healthcare/exercise-physiologists.htm>

Curriculum Requirements-Exercise Science (Declared Fall 2020 and later)

Kinesiology and Health Exercise Science Major

REQUIREMENT	NUMBER	COURSE NAME	CREDITS
Kinesiology and Health	01:377:140	Foundations of Kinesiology and Health	1.5
	01:377:205	Principles of a Healthy Lifestyle	1.5
Biology	01:119:115	General Biology I	4
	01:119:116	General Biology II	4
	01:119:117	Biological Research Laboratory	2
Statistics	01:377:275	Basic Statistics for Exercise Science	3
Calculus	01:640:135	Calculus I	4
Chemistry	01:160:161	General Chemistry	4
	01:160:162	General Chemistry	4
	01:160:171	Introduction to Experimentation	1
Physics	01:750:193	Physics for the Sciences	4
	01:750:194	Physics for the Sciences	4
Psychology	01:830:101	General Psychology	3
	01:377:301 or 455	Psychology of Sport and Exercise or Exercise Psychology	3
Physiology	01:146:356	Systems Physiology	3
	01:377:370	Exercise Physiology	3
	01:377:371	Exercise Physiology Lab	1
Anatomy	01:377:223	Functional Human Anatomy Lecture	3
	01:377:224	Functional Human Anatomy Lab	1
Biomechanics	01:377:350	Biomechanics	3
	01:377:310	Motor Learning	3
Electives	At least 3 credits must be at the 300 or 400 level and can include mini-courses. A maximum of one approved course can be outside the major.		6
Testing and Prescription	01:377:410	Exercise Testing and Prescription	4
Professional Development	01:377:407	Administration of Exercise Science	1.5
Internship	01:377:493	Internship in Exercise Science	3
Total Credits = 74.5			

Department of Kinesiology and Health

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Visit us at: kines.rutgers.edu

Sample Course Plan of Study

Exercise Science Major

(Declared Fall 2020 and later)

Department of Kinesiology and Health

Exercise Science Major

Sample Plan of Study

First Year

Fall		
119:115	General Biology I	4
377:140	Foundations of Kinesiology and Health	1.5
377:205	Principles of a Healthy Lifestyle	1.5

Spring		
119:116	General Biology II	4
119:117	Biological Research Lab	2
830:101	General Psychology	3
640:135	Calculus	4

Second Year

Fall		
160:161	General Chemistry	4
160:171	Introduction to Experimentation	1
377:275	Basic Stats for Exercise Science	3

Spring		
160:162	General Chemistry	4
377:223 377:224	Functional Human Anatomy	4
377:301 or 377:455	Sport Psych or Exercise Psych	3

Third Year

Fall		
750:193	Physics for the Sciences	4
377:310	Motor Learning	3
377:___	Elective	3

Spring		
750:194	Physics for the Sciences	4
146:356	Systems Physiology	3
377:___	Elective (300 level or above)	3

Fourth Year

Fall		
377:407	Administration of Exercise Science	1.5
377:370 377:371	Exercise Physiology Exercise Phys. Lab	4
377:350	Biomechanics	3

Spring		
377:493	Internship in Exercise Science	3 or 6
377:410	Exercise Testing and Prescription	4

The above sample plan is for the Major only. Students must also satisfy their school requirements.