LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF HEALTH SCIENCES

CURRICULUM CHANGE

Name of Program and Degree Award: Exercise Science, B.S.
Hegis Number: 1299.30
Program Code: 32639
Effective Term: Spring, 2019

1. **Type of Change:** Change in Degree Requirements

2. **From:**
Exercise Science B.S. (~~61.5-63~~ Credit Major)

Lehman College BS in Exercise Science program offers two tracks: Pre-physical Therapy, and Exercise and Movement Science. The program utilizes the Human Performance Laboratory with its state-of-the-art equipment and the additional resources of the APEX facility, including the fitness and weight training centers.

Exercise science, the study of physiological and functional adaptations to movement, encompasses a wide variety of disciplines including, but not limited to: Exercise Physiology, Sports Nutrition, Sport Psychology, Motor Control/Development, and Biomechanics. The study of these disciplines is integrated into the academic preparation of exercise science professionals. Exercise science professionals work in health services and the 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 health care, university, corporate, commercial and community settings where their clients participate in health promotion and fitness-related activities.

Career opportunities for individuals graduating with an undergraduate degree in exercise science are numerous. Common career tracks range from the exercise practitioner in fitness and/or clinical settings to that of a test technologist in a clinical setting. Additionally, career opportunities in residential spas (defined as facilities that include a fitness and nutrition component) include fitness director, health and fitness instructors, and personal trainers.

Also, students often pursue graduate degrees in exercise science, leading to management level positions in fitness or wellness settings or as research assistants. In addition, other disciplines find it helpful to include coursework in the exercise sciences. A degree in exercise science is also a very appropriate background for those going into

fields such as medicine, sports medicine, physical therapy, athletic training, occupational therapy or exercise physiology.

Aside from the workplace, the exercise science professional may seek employment opportunities in wellness settings including schools, medical sites, YMCAs, YWCAs, Boys and Girls Clubs, and community centers. Additional wellness opportunities can be found in nursing homes, recreation departments, aquatic centers, health management systems, and lifestyle management organizations.

Alternative wellness careers include massage therapy, aromatherapy, reflexology, herbology, osteopathy, and yoga, to name a few.

Honors in Exercise Science
Departmental honors in Exercise Science may be awarded to a student who has maintained an index of 3.5 in a minimum of 45 credits in all courses required for the major.

Option 1: Exercise and Movement Science

Major Requirements (~~61.5~~ credits). The major field requirements include the completion of 36 credits in Exercise Science core courses; ~~4 credits in MAT 132~~; 12.5 credits in science courses; ~~6~~ credits in Health Sciences; and 3 credits in a Major Elective course. A total of 120 credits are required for this degree.

a. Exercise Science Courses (~~36~~ credits):

	Credits
EXS 264 Introduction to Exercise Science	3
EXS 265 Behavioral Aspects of Physical Activity	3
EXS 315 Kinesiology and Biomechanics	3
EXS 316 Motor Learning	3
EXS 323 Exercise Physiology	3
EXS 326 Exercise Testing and Prescription	3
EXS 423 Exercise Physiology II	3
EXS 424 Principles and Practices of Fitness and Wellness Programming	3
EXS 425 Theory and Methods of Strength and Conditioning	3
EXS 430 Research Methods in Exercise Science	3
EXS 470 Internship in Exercise Science I	3
EXS 471 Internship in Exercise Science II	3

~~**b. Mathematics course (4 credits):**~~

	~~Credits~~
~~MAT 132 Introduction to Statistics~~	~~4~~

c. Science Courses (12.5 credits)

		Credits
BIO 181	Anatomy and Physiology I	4
BIO 182	Anatomy and Physiology II	4
CHE 114	Essentials of General Chemistry Lecture	3
CHE 115	Essentials of General Chemistry Laboratory	1.5

d. Health Sciences Courses (~~6~~ credits)

		Credits
~~HSD 269~~	~~Fundamentals of Biostatistics for Health Professionals~~	~~3~~
HSD 240	Nutrition and Health	3

e. Major Electives (3 credits)

Select from EXS, REC, REH, DFN, HEA, HSA and/or HSD courses with approval of the adviser.

GENERAL ELECTIVES:

Sufficient credits to reach a total of 120 credits required for graduation.

Option 2: Pre-Physical Therapy

Major Requirements (~~63~~ credits). The major field requirements include the completion of ~~30~~ credits in Exercise Science core courses; ~~4 credits in MAT 132;~~ 29 credits in science courses. A total of 120 credits are required for this degree.

a. Exercise Science Courses (30 credits):

		Credits
EXS 264	Introduction to Exercise Science	3
EXS 265	Behavioral Aspects of Physical Activity	3
EXS 315	Kinesiology and Biomechanics	3
EXS 316	Motor Learning	3
EXS 323	Exercise Physiology	3
EXS 326	Exercise Testing and Prescription	3
EXS 423	Exercise Physiology II	3
EXS 425	Theory and Methods of Strength and Conditioning	3
EXS 470	Internship in Exercise Science I	3
EXS 471	Internship in Exercise Science II	3

~~**b. Mathematics course (4 credits):**~~

		~~Credits~~
~~MAT 132~~	~~Introduction to Statistics~~	~~4~~

c. Science Courses (29 credits)

		Credits
BIO 181	Anatomy and Physiology I	4
BIO 182	Anatomy and Physiology II	4
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
PHY 166	General Physics I	5
PHY 167	General Physics II	5

GENERAL ELECTIVES:

Sufficient credits to reach a total of 120 credits required for graduation.

BIO 166 and BIO 167, MAT 172, PSY 166 and PSY 217 are recommended electives.

3. **To:**
Exercise Science B.S. (60.5-62 Credit Major)

Lehman College BS in Exercise Science program offers two tracks: Pre-physical Therapy, and Exercise and Movement Science. The program utilizes the Human Performance Laboratory with its state-of-the-art equipment and the additional resources of the APEX facility, including the fitness and weight training centers.

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practitioner in fitness and/or clinical settings to that of a test technologist in a clinical setting. Additionally, career opportunities in residential spas (defined as facilities that include a fitness and nutrition component) include fitness director, health and fitness instructors, and personal trainers.

Also, students often pursue graduate degrees in exercise science, leading to management level positions in fitness or wellness settings or as research assistants. In addition, other disciplines find it helpful to include coursework in the exercise sciences. A degree in exercise science is also a very appropriate background for those going into fields such as medicine, sports medicine, physical therapy, athletic training, occupational therapy or exercise physiology.

Aside from the workplace, the exercise science professional may seek employment opportunities in wellness settings including schools, medical sites, YMCAs, YWCAs, Boys and Girls Clubs, and community centers. Additional wellness opportunities can be found in nursing homes, recreation departments, aquatic centers, health management systems, and lifestyle management organizations.

Alternative wellness careers include massage therapy, aromatherapy, reflexology, herbology, osteopathy, and yoga, to name a few.

Honors in Exercise Science
Departmental honors in Exercise Science may be awarded to a student who has maintained an index of 3.5 in a minimum of 45 credits in all courses required for the major.

Option 1: Exercise and Movement Science

Major Requirements (60.5 credits). The major field requirements include the completion of 42 credits in Exercise Science core courses; 12.5 credits in science courses; 3 credits in Health Sciences; and 3 credits in a Major Elective course. A total of 120 credits are required for this degree.

a. Exercise Science Courses (42 credits):

		Credits
EXS 264	Introduction to Exercise Science	3
EXS 265	Behavioral Aspects of Physical Activity	3
EXS 315	Kinesiology and Biomechanics	3
EXS 316	Motor Learning	3
EXS 323	Exercise Physiology	3
EXS 326	Exercise Testing and Prescription	3
EXS 342	Sports Nutrition	3
EXS 423	Exercise Physiology II	3
EXS 424	Principles and Practices of Fitness and Wellness Programming	3
EXS 425	Theory and Methods of Strength and Conditioning	3
EXS 427	Application of Training Principles	3

EXS 430	Research Methods in Exercise Science	3
EXS 470	Internship in Exercise Science I	3
EXS 471	Internship in Exercise Science II	3

b. Science Courses (12.5 credits)

		Credits
BIO 181	Anatomy and Physiology I	4
BIO 182	Anatomy and Physiology II	4
CHE 114	Essentials of General Chemistry Lecture	3
CHE 115	Essentials of General Chemistry Laboratory	1.5

c. Health Sciences Courses (3 credits)

		Credits
HSD 240	Nutrition and Health	3

d. Major Electives (3 credits)

Select from EXS, REC, REH, DFN, HEA, HSA and/or HSD courses with approval of the adviser.

GENERAL ELECTIVES:

Sufficient credits to reach a total of 120 credits required for graduation.

Option 2: Pre-Physical Therapy

Major Requirements (62 credits). The major field requirements include the completion of 33 credits in Exercise Science core courses; 29 credits in science courses. A total of 120 credits are required for this degree.

a. Exercise Science Courses (33 credits):

		Credits
EXS 264	Introduction to Exercise Science	3
EXS 265	Behavioral Aspects of Physical Activity	3
EXS 315	Kinesiology and Biomechanics	3
EXS 316	Motor Learning	3
EXS 323	Exercise Physiology	3
EXS 326	Exercise Testing and Prescription	3
EXS 423	Exercise Physiology II	3
EXS 430	Research Methods in Exercise Science	3

EXS 425	Theory and Methods of Strength and Conditioning	3
EXS 470	Internship in Exercise Science I	3
EXS 471	Internship in Exercise Science II	3

b. Science Courses (29 credits)

		Credits
BIO 181	Anatomy and Physiology I	4
BIO 182	Anatomy and Physiology II	4
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
PHY 166	General Physics I	5
PHY 167	General Physics II	5

GENERAL ELECTIVES:

Sufficient credits to reach a total of 120 credits required for graduation.

BIO 166 and BIO 167, MAT 172, PSY 166 and PSY 217 are recommended electives.

4. **Rationale (Explain how this change will impact learning outcomes of the department and Major/Program):**
Based on our experience, students are getting the necessary information required for a basic understanding of statistical methods in EXS 430, which is already a required course in the Exercise and Movement Science Track (Option 1), and thus MAT 132 and HSD 269 are essentially superfluous. Moreover, EXS 430 provides additional insights into the research process that are very important for the students' development as a fitness professional. Thus, we feel the students would derive greater benefit from taking EXS 342 and EXS 427, which provide important knowledge into practical aspects of exercise science that will be beneficial to their careers as fitness professionals. Thus, we feel substituting EXS 342 and EXS 427 for MAT 132 and HSD 269 would be of benefit to students in the Exercise and Movement Science Track.

Currently, those pursuing the Pre-Physical Therapy Track (Option 2) are not required to take EXS 430, but rather are required to take MAT 132. Based on our experience, students will get the necessary information required for basic understanding of statistical methods in EXS 430, and EXS 430 provides additional insights into the research process that are very important for the students' development as a fitness professional. Thus, we feel that substituting EXS 430 for MAT 132 would be of benefit to students in the Pre-Physical Track.

5. **Date of departmental approval:** 9/5/2018

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CURRICULUM CHANGE

1. Type of change: New Course

2.

Department(s)	Health Sciences
Career	[x] Undergraduate [ ] Graduate
Academic Level	[x] Regular [ ] Compensatory [ ] Developmental [ ] Remedial
Subject Area	Dietetics, Foods, and Nutrition
Course Prefix & Number	DFN 441
Course Title	Seminar in professional practice of nutrition and dietetics
Description	Discussion of the professional standards and code of ethics in Nutrition and Dietetics.
Pre/ Co Requisites	Pre-requisite: DFN 348
Credits	2
Hours	2
Liberal Arts	[ ] Yes [x] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
General Education Component	__x_ Not Applicable ____ Required ____ English Composition ____ Mathematics ____ Science ____ Flexible ____ World Cultures ____ US Experience in its Diversity ____ Creative Expression ____ Individual and Society ____ Scientific World

3. Rationale:

This seminar course will fulfill standards outlined by The Accreditation Council for Education in Nutrition and Dietetics for our option 1 students pursuing the Didactic Program in Dietetics. The course will familiarize students with the professional practice of dietetics and provide opportunities to discuss and study issues of importance. Included will be professional code of ethics, inter-professional teams, evidence-based practice, attendance at professional meetings, improving critical thinking skills, professional mentoring and precepting. By the end of this course, students will be able to describe the depth and breadth of the professional standards for dietitians as well as the opportunities and challenges within the field.

4. Learning Outcomes (By the end of the course students will be expected to):
At the completion of this course the student should be able to:

- Use current information technologies to locate and apply evidence-based guidelines and protocols.
- Apply critical thinking skills.
- Describe the governance of nutrition and dietetics practice, such as the Scope of Nutrition and Dietetics Practice and the Code of Ethics for the Profession of Nutrition and Dietetics
- Describe inter-professional relationships in various practice settings.
- Identify and describe the work of inter-professional teams and the roles of others with whom the registered dietitian nutritionist collaborates in the delivery of food and nutrition services.
- Demonstrate identification with the nutrition and dietetics profession through activities such as participation in professional organizations and defending a position on issues impacting the nutrition and dietetics profession.
- Demonstrate an understanding of the importance and expectations of a professional in mentoring and precepting others.
- Explain the processes involved in delivering quality food and nutrition services.

Assessment Strategies:

- Research Paper using Evidence Analysis Library.
- Quizzes and Exams
- Reaction paper to RD and RN inter-professional team
- Reaction paper to professional meeting
- Position paper on issue impacting the profession
- Online Discussion Boards

5. **Date of Departmental Approval:** 12/06/2017