KINGSBOROUGH COMMUNITY COLLEGE
The City University of New York

CURRICULUM TRANSMITTAL COVER PAGE

Department: Health, Physical Education and Recreation **Date:** August 3, 2016

Title Of Course Or Degree: EXS (TBD) INTRODUCTION TO EXERCISE SCIENCE

Change(s) Initiated: (Please check)

- ☐ Closing of Degree
- ☐ Closing of Certificate
- ☐ New Certificate Proposal
- ☐ New Degree Proposal
- ☑ New Course
- ☐ New 82 Course
- ☐ Deletion of Course
- ☐ Change in Degree or Certificate Requirements
- ☐ Change in Degree Requirements (adding concentration)
- ☐ Change in Pre/Co-Requisite
- ☐ Change in Course Designation
- ☐ Change in Course Description
- ☐ Change in Course Title, Numbers Credit and/or Hour
- ☐ Change in Academic Policy
- ☐ Pathways Submission:
  - ☐ Life and Physical Science
  - ☐ Math and Quantitative Reasoning
  - ☐ A. World Cultures and Global Issues
  - ☐ B. U.S. Experience in its Diversity
  - ☐ C. Creative Expression
  - ☐ D. Individual and Society
  - ☐ E. Scientific World

☐ **Other (please describe):** _____

PLEASE ATTACH MATERIAL TO ILLUSTRATE AND EXPLAIN ALL CHANGES

DEPARTMENTAL ACTION

Action by Department and/or Departmental Committee, if required:

Date Approved: 9/13/16 **Signature, Committee Chairperson:** Michele Bracco

I have reviewed the attached material/proposal

Signature, Department Chairperson: Donald Hume

Revised/Dec.2015/AK

KINGSBOROUGH
COMMUNITY COLLEGE
★ DREAMS BEGIN HERE ★

TO: Fall 2016 Curriculum Committee

FROM: Department of Health, Physical Education and Recreation

DATE: August 8, 2016

RE: New Course Proposal: EXS TBD, Introduction to Exercise Science

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The Department of Health, Physical Education and Recreation is proposing a new course, EXS TBD, Introduction to Exercise Science

FROM:

n/a

TO:

New course, EXS TBD, Introduction to Exercise Science

Rationale for Change:

This course is an introduction to the Exercise Science Major. An overview of the professions and academic disciplines related to exercise science will be covered, along with the education and experience required for entry level and advanced positions. The course will also introduce the scientific method and its relevance to the study and practice of exercise science, and the ethical and legal responsibilities of an exercise science professional (Bulletin Description of Course, Item 4 of New Course Proposal Form, attached)

The demand for exercise science professionals is growing in accordance with recognition by the medical community and the public of the importance of structured physical activity to improve health and performance in all aspects of living. The course will provide students with an appreciation of the rigorous science-based curriculum that lies ahead at the community college and baccalaureate levels, along with awareness of the proficiency, ethical and legal standards to which they will be held by their employers, their clients and their peers. (Narrative from Item 8E of New Course Proposal Form, attached)

KINGSBOROUGH COMMUNITY COLLEGE

THE CITY UNIVERSITY OF NEW YORK

NEW COURSE PROPOSAL FORM

1. **DEPARTMENT, COURSE NUMBER, AND TITLE (SPEAK TO ACADEMIC SCHEDULING FOR NEW COURSE NUMBER ASSIGNMENT):**

   EXS ____ INTRODUCTION TO EXERCISE SCIENCE

2. **DOES THIS COURSE MEET A GENERAL EDUCATION/CUNY CORE CATEGORY?** NO
   - ☐ **Life and Physical Science**
   - ☐ **Math and Quantitative Reasoning**
   - ☐ **A. World Cultures and Global Issues**
   - ☐ **B. U.S. Experience in its Diversity**
   - ☐ **C. Creative Expression**
   - ☐ **D. Individual and Society**
   - ☐ **E. Scientific World**

   IF YES, COMPLETE AND SUBMIT WITH THIS PROPOSAL A CUNY COMMON CORE SUBMISSION FORM.

3. **DESCRIBE HOW THIS COURSE TRANSFERS (REQUIRED FOR A.S. DEGREE COURSE). IF A.A.S. DEGREE COURSE AND DOES NOT TRANSFER, JUSTIFY ROLE OF COURSE, E.G. DESCRIBE OTHER LEARNING OBJECTIVES MET:**

   This course is expected to transfer as an equivalent introductory course to senior colleges with baccalaureate programs in exercise science and related disciplines.

4. **BULLETIN DESCRIPTION OF COURSE:**

   This course is an introduction to the Exercise Science Major. An overview of the professions and academic disciplines related to exercise science will be covered, along with the education and experience required for entry level and advanced positions. The course will also introduce the scientific method and its relevance to the study and practice of exercise science, and the ethical and legal responsibilities of an exercise science professional.

5. CREDITS AND HOURS* (PLEASE CHECK ONE APPROPRIATE BOX BELOW BASED ON CREDITS):

1-credit:	☐ 1 hour lecture
	☐ 2 hours lab/field/gym

2-credits:	☐ 2 hours lecture
	☐ 1 hour lecture, 2 hours lab/field
	☐ 4 hours lab/field

3-credits:	X 3 hours lecture
	☐ 2 hours lecture, 2 hours lab/field
	☐ 1 hour lecture, 4 hours lab/field
	☐ 6 hours lab/field

4-credits:	☐ 4 hours lecture
	☐ 3 hours lecture, 2 hours lab/field
	☐ 2 hours lecture, 4 hours lab/field
	☐ 1 hour lecture, 6 hours lab/field
	☐ 8 hours lab/field

More than 4-credits:	☐ Number of credits: ____ (explain mix lecture/lab below)
	___ Lecture ____Lab
Explanation:	_____

***Hours are hours per week in a typical 12-week semester**

6. NUMBER OF EQUATED CREDITS IN ITEM #5: 3

7. COURSE PREREQUISITES AND COREQUISITES (IF NONE PLEASE INDICATE FOR EACH)

A. PREREQUISITE(S): None

B. COREQUISITE(S): None

C. PRE/COREQUISITE(S): None

8. **BRIEF RATIONALE TO JUSTIFY PROPOSED COURSE TO INCLUDE:**
   - **A. ENROLLMENT SUMMARY IF PREVIOUSLY OFFERED AS AN 82 (INCLUDE COMPLETE 4-DIGIT 82 COURSE NUMBER)** N/A
   - **B. PROJECTED ENROLLMENT** 25
   - **C. SUGGESTED CLASS LIMITS** 25
   - **D. FREQUENCY COURSE IS LIKELY TO BE OFFERED** Two sections per semester
   - **E. ROLE OF COURSE IN DEPARTMENT'S CURRICULUM AND COLLEGE'S MISSION**

   The demand for exercise science professionals is growing in accordance with recognition by the medical community and the public of the importance of structured physical activity to improve health and performance in all aspects of living. The course will provide students with an appreciation of the rigorous science-based curriculum that lies ahead at the community college and baccalaureate levels, along with awareness of the proficiency, ethical and legal standards to which they will be held by their employers, their clients and their peers.

9. **LIST COURSE(S), IF ANY, TO BE WITHDRAWN WHEN COURSE IS ADOPTED (NOTE THIS IS NOT THE SAME AS DELETING A COURSE):** Not applicable. This course is a component of a new degree program.

10. **IF COURSE IS AN INTERNSHIP, INDEPENDENT STUDY, OR THE LIKE, PROVIDE AN EXPLANATION AS TO HOW THE STUDENT WILL EARN THE CREDITS AWARDED. THE CREDITS AWARDED SHOULD BE CONSISTENT WITH STUDENT EFFORTS REQUIRED IN A TRADITIONAL CLASSROOM SETTING:** N/A

11. **PROPOSED TEXT BOOK(S) AND/OR OTHER REQUIRED INSTRUCTIONAL MATERIAL(S):** Potteiger, Jeffrey A. ACSM's Introduction to Exercise Science, 2nd edition. Philadelphia: Lippincott, Williams and Wilkins, 2013. Print.

12. **REQUIRED COURSE FOR MAJOR OR AREA OF CONCENTRATION?**

    Yes. This course will be required for the new Pre-Exercise Science AS Degree program which is presently under development and will be the subject of a separate transmittal.

    IF YES, COURSE IS REQUIRED, SUBMIT A SEPARATE CURRICULUM TRANSMITTAL COVER PAGE INDICATING A "CHANGE IN DEGREE OR CERTIFICATE REQUIREMENTS" AS WELL AS A PROPOSAL THAT MUST INCLUDE A RATIONALE AND THE FOLLOWING ADDITIONAL PAGES: A "CURRENT" DEGREE WITH ALL PROPOSED DELETIONS (STRIKEOUTS) AND ADDITIONS (BOLDED TEXT) CLEARLY INDICATED, AND A "PROPOSED" DEGREE, WHICH DISPLAYS THE DEGREE AS IT WILL APPEAR IN THE CATALOG (FOR A COPY OF THE MOST UP-TO-DATE DEGREE/CERTIFICATE REQUIREMENTS CONTACT AMANDA KALIN, EXT. 4611).

    NYSED GUIDELINES OF 45 CREDITS OF LIBERAL ARTS COURSE WORK FOR AN ASSOCIATE OF ARTS DEGREE (A.A.), 30 CREDITS FOR AND ASSOCIATE OF SCIENCE DEGREE (A.S.), AND 20 CREDITS FOR AN APPLIED ASSOCIATE OF SCIENCE DEGREE (A.A.S.) MUST BE ADHERED TO FOR ALL 60 CREDIT PROGRAMS.

13. IF OPEN ONLY TO SELECTED STUDENTS SPECIFY POPULATION: N/A

14. EXPLAIN WHAT STUDENTS WILL KNOW AND BE ABLE TO DO UPON COMPLETION OF COURSE:

General educational objectives addressed through this course	Briefly describe activities in the course which help students met each of these general education objectives
Students will communicate effectively through reading, writing, listening and speaking.	Students will review, discuss, write and give presentations about the scope, issues and potential career practices of exercise science.
Students will use analytical reasoning to identify issues or problems and evaluate evidence in order to make informed decisions.	Students will demonstrate comprehension of various issues and problems in exercise science from class discussions, reading journal articles, and from field observation.
Students will integrate knowledge and skills in their program of study.	Students will integrate exercise science concepts from assigned readings, lectures, field observation.
Students will use information management and technology skills effectively for academic research and lifelong learning	Students will experience hands-on instruction from library staff in the use of data bases, and apply this knowledge in preparation of their term projects.

Upon completion of the course, the student will:

- Describe the general education and basic science and math requirements needed for transfer to a baccalaureate program in Exercise Science and related fields;
- Describe the academic disciplines of Exercise Science and related fields, along with the careers and work environments available to degree holders;
- Explain the education and experience prerequisites and potential career paths for a variety of fitness professions, including:
  a) Entry level health and fitness titles, such as Group Exercise Leader, Fitness Trainer and Personal Trainer
  b) Advanced health and fitness titles, such as Exercise Physiologist, and Strength and Conditioning Specialist
  c) Sport performance oriented titles, such as Sports Coach, Athletic Trainer, and Biomechanist
  d) Clinically oriented titles, such as Clinical Exercise Physiologist, Sports Dietician/Nutritionist, Sports Psychologist, Occupational Therapist and Physical Therapist
  e) Educationally oriented titles such as Physical Education Teacher and Health/Wellness Coach;
- Explain the registration, certification and licensing requirements for various professions;
- Utilize the KCC library and other resources (print and electronic) to gather statistics, research articles and career-related information;
- Describe the application of the scientific method in the design, review and revision of physical activity guidelines;
- Differentiate between fads and trends in exercise programming;
- Describe the partnership between exercise professionals and members of the medical profession, or with other allied health professionals;
- Describe the scope and standards of practice for a variety of exercise professionals, and the boundaries between the fitness profession and other health-related professions;
- Describe professional, ethical and legal standards to which exercise professionals are expected to adhere;
- Identify professional organizations and publications that are relevant to the fitness profession and its subdivisions;

15. METHODS OF TEACHING –E.G. LECTURES, LABORATORIES, AND OTHER ASSIGNMENTS FOR STUDENTS, INCLUDING ANY OF THE FOLLOWING: DEMONSTRATIONS, GROUP WORK, WEBSITE OR E-MAIL INTERACTIONS AND/OR ASSIGNMENTS, PRACTICE IN APPLICATION OF SKILLS, ETC.:

- Lectures
- Discussions
- Field Observation
- Reading Assignments
- Instructor moderated student-presentations
- Audio-visual presentations
- Guest speakers

16. ASSIGNMENTS TO STUDENTS:

Each student will be required to visit a facility that provides exercise science related services, such as a fitness center, athletic training or physical therapist clinic, where they will observe practitioner-client contacts, and interview the practitioner(s) to obtain specific information about the profession, including its entry requirements and working conditions. Students will write a term paper based on this visit and present the paper in class during the last weeks of the course.

17. DESCRIBE METHOD OF EVALUATING LEARNING SPECIFIED IN #15 - INCLUDE PERCENTAGE BREAKDOWN FOR GRADING. IF A DEVELOPMENTAL COURSE INCLUDE HOW THE NEXT LEVEL COURSE IS DETERMINED AS WELL AS NEXT LEVEL PLACEMENT.

- Mid-term written examination 25%
- Term Paper 25%
- Final written examination 25%
- Class presentation of Term Paper 10%
- Journal based quiz 10%
- Class participation and class assignments 5%

18. TOPICAL COURSE OUTLINE FOR THE 12 WEEK SEMESTER (WHICH SHOULD BE SPECIFIC REGARDING TOPICS COVERED, LEARNING ACTIVITIES, AND ASSIGNMENTS):

A. Lectures – based on three hours per week.

1. Introduction; program requirements; class requirements;
2. Overview of Exercise Science and its sub-disciplines;
3. Physical activity recommendations of government agencies and other organizations;
4. "Exercise is Medicine" (EIM is an initiative managed by the American College of Sports Medicine to encourage health practitioners to include physical activity in treatment plans and to refer their patients to EIM credentialed programs and professionals) ;
5. Introduction to careers;
6. Careers: Group Exercise Leader, Fitness Trainer, Personal Trainer;
7. Careers: Group Exercise Leader, Fitness Trainer, Personal Trainer (cont'd);
8. Careers: Exercise Physiologist, Strength and Conditioning Specialist;
9. Careers: Exercise Physiologist, Strength and Conditioning Specialist (cont'd);
10. Careers: Sports Coach, Athletic Trainer, Biomechanist;
11. Careers: Clinical Exercise Physiologist, Sports Dietician/Nutritionist;
12. Careers: Clinical Exercise Physiologist, Sports Dietician/Nutritionist (cont'd);
13. Careers: Careers: Sports Psychologist, Occupational and Physical Therapist;
14. Careers: Physical Education Teacher and Health/Wellness Coach;
15. Midterm Examination;
16. Fads and trends;
17. Scientific method and research;
18. Library workshop on conducting research;
19. Article quiz;
20. Special issues in Exercise Science – High Intensity Training;
21. Special issues in Exercise Science – Children's Fitness and Sport Programing;

22. Special issues in Exercise Science - Nutrition and Supplementation;
23. Educational courses for Exercise Science major (Biology, Nutrition and related courses);
24. Educational courses for Exercise Science major (Chemistry, Physics, Mathematics, Computer Science and related courses);
25. Transfer considerations presented by the KCC Transfer Success Center;
26. Future of exercise science – Standardization of Professional Requirements;
27. Future of exercise science – Equipment Technology;
28 – 36. Student presentations of career observations.

19. SELECTED BIBLIOGRAPHY AND SOURCE MATERIALS:

American College of Sports Medicine. ACSM's Guidelines for Exercise Testing and Prescription, Ninth Edition. Philadelphia: Lippincott, Williams and Wilkins. 2013.

American College of Sports Medicine. ACSM's Resource Manual for Guidelines For Exercise Testing and Prescription, Seventh Edition. Philadelphia: Lippincott, Williams and Wilkins. 2013.

Brown, Stanley. Fundamentals of Kinesiology, First Edition. Dubuque, IA. Kendall Hunt. 2014 (2nd edition to be released 2016) (This is a follow-up to Introduction to Exercise Science, published by Lippincott, Williams and Wilkins in 2001 and adopted in Exercise Science/Kinesiology survey courses at various colleges)

Hoffman, Shirl. Introduction to Kinesiology, Fourth Edition. Champaign, IL. Human Kinetics. 2013

Housh, Terry J.; Dona J. Housh and Terry O. Johnson, editors. Introduction to Exercise Science, 4th Edition. Scottsdale, AZ. Holcomb Hathaway Publishers. 2012

Kamen, Gary. Foundations of Exercise Science, 1st edition. Philadelphia. Lippincott, Williams and Wilkins. 2001 (Out of print and no newer edition appears to have been published)

Lumpkin, Angela. Introduction to Physical Education, Exercise Science and Sport Studies, 9th Edition. Columbus, OH. McGraw Hill Higher Education. 2013. (10th edition to be released July 2016)

Wuest, Deborah and Jenifer Fisette. Foundations of Physical Education, Exercise Science, and Sport, 18th Edition. Columbus, OH. McGraw Hill Higher Education. 2014

Revised/Dec.2015/AK