

BOROUGH OF MANHATTAN COMMUNITY COLLEGE  
The City University of New York



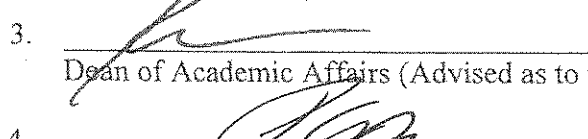
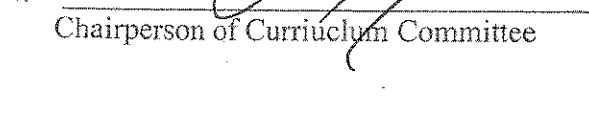
Curriculum Proposal

NEW CURRICULUM

Attach a copy of the new curriculum to this sheet as well as any course or course revisions required as part of the new curriculum.

1. Name of Department Science
2. Name of new curriculum Science for Health Professions
3. Degree to be granted Associate in Science
4. Estimated Enrollment in curriculum (number of students estimated to begin this curriculum per academic year): 100
5. Will this curriculum require special materials, equipment or space?  
       Yes   x   No      If yes, attach an explanation.
6. Are any old curricula being dropped?        Yes   x   No. If yes, please list.
7. Date effective Fall, 2016

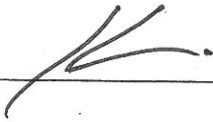
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1.	 Department Chairperson or Program Director	<u>9/25/15</u> Date
2.	 Scheduling Officer (Advised as to Course Code)	<u>9/28/15</u> Date
3.	 Dean of Academic Affairs (Advised as to format)	<u>9/29/15</u> Date
4.	 Chairperson of Curriculum Committee	<u>11/7/15</u> Date



THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK /  
ALBANY, NY 12234

### CEO (or Designee) Approval Form


Name of CEO or Designee:	
Title:	
Signature:	
Date of signature:	

If the program will be jointly registered with another institution, provide the following information:

Name of partner institution	
Name of CEO or Designee of partner institution:	
Title:	
Signature:	
Date of signature:	

Signature affirms the institution's commitment to support the proposed program.

PROPOSAL TO ESTABLISH A PROGRAM IN  
SCIENCE FOR HEALTH PROFESSIONS  
EFFECTIVE FALL, 2016  
LEADING TO THE A.S. DEGREE  
SPONSORED BY THE DEPARTMENT OF SCIENCE  
APPROVED BY  
BOROUGH OF MANHATTAN COMMUNITY COLLEGE  
OF  
THE CITY UNIVERSITY OF NEW YORK  
ACADEMIC SENATE

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Provost's Signature:	 _____	
Provost's Name:	Dr. Karrin Wilks	

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## EXECUTIVE SUMMARY

The Department of Science of Borough of Manhattan Community College proposes an A.S. degree in Science for Health Professions to prepare students to transfer to bachelor degree programs leading to careers in practitioner professions. Possible practitioner professions include as dietitians, nutritionists and exercise practitioners. Examples of practitioner profession education are degrees in Dietetics, Food and Nutrition, Food Service and Nutrition, and in Exercise Science. These degrees qualify students for employment in positions that will help people live healthier lives through nutrition, exercise, and rehabilitation

Exercise Science is the science of human movement. Practitioners in Exercise Science who have completed the four-year bachelor degree curriculum learn how to help people live healthier lives through exercise and rehabilitation. Continued growth of health clubs, fitness facilities, and an overall awareness of the importance of exercise contribute to job increases for fitness workers.

Borough of Manhattan Community College offers introductory biology, chemistry and physics courses required in Associate degree programs offered by the College. These science courses enroll in excess of 1500 students each semester. The Associate degree programs offered by the College are competitive, have limited enrollment, or may differ from the education required for other practitioner profession careers being pursued by students at the College. The A.S. in Science for Health Professions offers students an educational path to other professional careers.

The College's student population is predominantly minority consisting of 33 % African American 39 % Hispanic, and 14 % Asian. Women comprise 58% of BMCC students. The A.S. in Science for Health Professions is a program that will be part of a pipeline linking minorities and women from their primary education to their bachelor degrees.

The curriculum adheres to the City University of New York's Common Core curriculum. Included in the science core are prerequisite courses for bachelor degree programs. The general education courses meet the Common Core requirements. The Department of Science faculty is committed to teach courses needed for students pursuing an education for careers in the health professions.

The Department of Science faculty is highly qualified to teach the biology, chemistry, and physics courses in the program. There is sufficient faculty to meet the needs of an enrollment increase due to the introduction of the new program into the College's curriculum. The expenditures for the laboratories and office supplies will be met by Department of Science's annual budget. The revenue gained by the program will be sufficient to meet any increased expenditures.

There are Articulation Agreements between Borough of Manhattan Community College's A.S. in Science for Health Professions and Lehman College's B.S. programs in (1) Dietetics, Food and Nutrition, (2) Food Service and Nutrition, and (3) Exercise Science. These agreements provide a seamless transition for students transferring from the associate degree program to the bachelor's degree programs.

Employment of dietitians and nutritionists is projected to increase in the next decade. According to the Centers for Disease Control, many diseases are related to nutrition. More dietitians and nutritionists will be needed to provide care for people with these conditions. An

aging population will increase the need for dietitians and nutritionists in nursing homes and in home healthcare.

Employment in exercise science is expected to increase in the next decade. In colleges, universities, and youth leagues there is more awareness of sports related injuries. In addition growth in an increasingly active middle aged and elderly population will lead to an increased incidence of athletic related injuries. Sports programs at all ages and all experience levels will create a demand for expertise in exercise science. Business, government and insurance organizations recognize the benefits of health and fitness programs which will also increase employment.

## **ABSTRACT**

Borough of Manhattan Community College proposes an A.S. degree in Science for Health Professions to prepare students to transfer to bachelor degree programs leading to careers in their chosen health professions. The curriculum includes the science, mathematics and general education courses that are required for transfer to upper division programs. Borough of Manhattan Community College has the faculty and facilities to implement the program. Some programs that are possible for student transfer are offered by Lehman College. They have agreed to articulate the Associate's degree with their Health Sciences Department programs in Dietetics, Food and Nutrition, Food Service and Nutrition, and Exercise Science.

### **1. Purposes and Goals**

The Department of Science of Borough of Manhattan Community College proposes a new Associate's degree program in Science for Health Professions that will prepare students to enter the third year of bachelor degree programs. The program will educate students in the fundamental sciences of biology, chemistry and physics as well as mathematics and general education courses that will enable them to transfer and successfully complete upper division bachelor degree practitioner programs. Knowledge of biology, physiology, biochemistry, chemistry and physics are essential as a base to understand upper division courses. A program grounded in the fundamental sciences develops analytical competencies for professional development. The Department of Science faculty is committed to offer the education needed to prepare students for careers in practitioner professions, and currently performs this role by offering instruction in required science courses for these careers. This program complements college offerings for two year practitioner programs in Nursing, Respiratory Therapy, Paramedic and Health Information Technology. These programs all require fundamental science courses as part of their programs. The Department of Science has been and will continue to be committed to offer the necessary science courses, and to cooperate with the Departments offering these programs. These programs are priorities of Borough of Manhattan Community College. The proposed program will offer students a curriculum that will allow students to pursue bachelor degrees in practitioner professions, and will meet their educational and career goals. Examples of bachelor degree practitioner programs that meet educational goals and career objectives of students are Dietetics, Food and Nutrition, Food Service and Nutrition, and Exercise Science.

### **2. Need and Justification**

Students need to understand the fundamental sciences for successful completion of bachelor degree practitioner programs. The underpinning knowledge of anatomy, physiology, pharmacology, biochemistry; microbiology and physics provide the foundations of study for the practitioner professions. Successful completion of the two year Science for Health Professions degree will provide students information necessary to explain the chemical, cellular and tissue level organization of the body, and the structure and function of the cell. They will understand the anatomy and physiology across the biological systems of the body, and the basis of DNA and inheritance. Courses in the biological sciences include topics of cellular mechanisms and biological development Chemistry is needed to understand the underlying chemical processes in biological functions Students need to understand the function of specific molecules proteins, carbohydrates, fats, vitamins, and minerals. Physics is needed for the study of the action of external and internal forces on the living body, especially on the skeletal system and in the study of the mechanical nature of biological processes, such as heart action and muscle movement.

Digestion is the process of breaking down the large molecules in the food into molecules small enough to be absorbed into the blood by the intestine. Once absorbed into the bloodstream these molecules are transported to the various tissues where they provide energy, help support proper function and provide for the growth and repair of cells and intercellular matrix.

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Metabolism is the range of biochemical processes that occur within a living organism. Metabolism consists of anabolism (the buildup of substances) and catabolism (the breakdown of substances). Metabolism focuses on the integration of molecular and cellular biochemistry and physiology. The biochemistry of metabolism includes cell signaling, molecular and cellular biology of biomolecules, and gene interactions with biomolecules.

Proteins are significant biomolecules in the structure, function and integrity of biological systems. Proteins constitute the majority of the body's structural tissue, such as bone and connective tissues that provide the shape and form to which cells attach. Enzymes are proteins involved in many functions in the body such as building new tissue or removing damaged tissue. Proteins transport hormones to different parts of the body, and transport signals across cell membranes to nucleic acids.

Students need to understand the structure and function of carbohydrates, fats, nucleic acids, genes and chromosomes. Chemicals have been shown to alter gene expression in biological pathways.

The fundamental science course in the two year program provides knowledge and competency to students about the physiology of movement, anatomy and biomechanics. These phenomena all require an understanding of fundamental scientific concepts in biology, chemistry and physics.

The College needs to offer students this program that focuses on the scientific basis for the Practitioner professions. Students educated in the fundamental sciences will have the necessary scientific knowledge to apply to the expertise needed for their professions.

After transfer and successful completion of upper division programs students will be able to enter practitioner careers in their chosen profession. Examples of programs for practitioner professions are Dietetics, Food and Nutrition, Food Service and Nutrition, and Exercise Science. These programs will qualify students for employment that meets societal needs by helping people. Dietitians and nutritionists are typically employed in hospitals, universities, medical centers, government and nonprofit agencies, long term care facilities, nursing homes, public health clinics, and are self-employed in private practice.

Employment of dietitians and nutritionists is expected to increase 20 percent from 2010 to 2020, faster than average for all occupations (U.S. Bureau of Labor Statistics, Employment Projections program). More dietitians and nutritionists will be needed to provide care for people with diet related health information. (Occupational Employment Handbook 2013-2014). Dietitians are employed in a variety of settings. Median dietitian salaries in New York were \$66,739 per year in October 2014 and average dietitian salaries was \$76,000 per year.

Food Service Professionals are employed in the Food Service industry in positions for which the bachelor's degree in Food Service and Nutrition is a qualification. Food Service professionals advance the culture of innovating food service in long term care and senior living which is a change from a medical model to a neighborhood model resulting in an increase in the

variety of meals and flexibility in meal periods. Foodservice professionals are employed in schools and monitor pattern recognition in school nutrition programs such as prevalent menu trends and emerging menu trends, school lunch and breakfast participation

They may also manage the foodservice in day-care centers and correctional facilities, over-seeing everything from food purchasing and preparation to managing staff, in sports nutrition, and in corporate wellness programs, educating clients about the connection between food, fitness and health

Food Service Professionals plan meal programs as management dietitians. They work in food service settings such as cafeterias, hospitals, prisons, and schools, buying food and carrying out other business-related tasks such as budgeting.

Exercise Science is the science of human movement. Practitioners in Exercise Science after completion of the four-year bachelor degree curriculum learn how to help people live healthier lives through exercise and rehabilitation.

Degree programs in exercise physiology, a subsection of exercise science, aim to teach the relationship between exercise, movement and the relationship to human physiology. Exercise affects a range of bodily processes, from hormonal responses to digestion. Specific science courses can include physiology and functional anatomy.

Many bachelor degree graduates who pursue degrees in exercise science choose to work as exercise physiologists, occupational physiologists and personal trainers. Continued growth of health clubs, fitness facilities, and an overall awareness of the importance of exercise contribute to jobs for fitness workers. According to the American College of Sports Medicine, students graduating with a degree in exercise science and no experience can expect to earn \$25,000 to \$30,000 annually.

The A.S. in Science for Health Professions includes courses in anatomy, physiology, chemistry, biology, and physics that qualify students to enroll in the third year bachelor degree programs that will meet their educational and career goals.

### **3. Students Interest**

Borough of Manhattan Community College currently enrolls students in courses that are prerequisites for pursuing education in health profession bachelor degree programs. The introductory prerequisite courses for these educational goals and careers are

- (1) CHE 121 Fundamentals of General, Organic and Biological Chemistry I,
- (2) BIO 425 Anatomy and Physiology I, and
- (3) BIO 426 Anatomy and Physiology II.

CHE 121 is a prerequisite for BIO 425, and BIO 425 is a prerequisite for BIO 426. Approximately 1500 students enrolled in these courses during each semester of the academic year since the Spring, 2013 semester. This number of students is supplemented by additional enrollment in the summer semesters. The courses are sequential. One course is a prerequisite for another course. Fundamentals of General, Organic and Biological Chemistry I is a prerequisite for Anatomy and Physiology I, and Anatomy and Physiology I is a prerequisite for Anatomy and Physiology II. In a single semester students enroll in only one of these courses. The total enrollment in a single semester therefore represents students pursuing careers in the health professions. Table I lists the enrollment in these course since Spring, 2013.



Table 1

Course	Spring, 2013	Summer, 2013	Fall, 2013	Spring, 2014	Summer 2014	Fall 2014
CHE 121 - Fundamentals of General, Organic and Biological Chemistry I	480	141	529	624	159	664
BIO 425 – Anatomy and Physiology I	565	202	558	551	184	597
BIO 426 – Anatomy and Physiology II	417	133	373	396	149	428

These courses (CHE 121, BIO 425, and BIO 426) are open only to students enrolled in the College seeking careers in the health professions, and therefore the enrollment demonstrates significant student interest in practitioner professions. Borough of Manhattan Community College offers Nursing, Respiratory Therapy, Health Information Technology, and Paramedic associate degree programs. These programs have limited enrollment, are competitive and educate students for very specific occupational goals. Many students are either not admitted to these programs, or wish to pursue education for other health careers. The A.S. in Science for Health Professions will serve these students by providing an alternative educational program for their occupational goals.

77% of women and underrepresented minority scientists were missing from scientific fields because they were not identified, encouraged or nurtured to pursue these studies. (Brooklyn Health Disparities Center Issue Brief July 2011, Kweli Henry, *Partnering with the Community to Address the Shortage of Underrepresented Minorities in the Health Professions*. Issue Brief, July 2011). The College's student population is predominantly minority with 33 % African American 39 % Hispanic, and 14 % Asian. Women comprise 58% of BMCC students. The A.S. in Science for Health Professions is a program that will be part of a pipeline linking minorities and women from primary education to bachelor degrees that lead to careers in the health professions.

### **Projected Enrollment**

Approximately 110 students are expected to enroll in the Health Science program in the first year. A gradual enrollment increase is expected and at the end of five years there will be 140 students in the program.

The projected enrollment in the program will come from those students who do not enroll in Borough of Manhattan College's associate degree health programs, but instead are seeking other bachelor degree health programs, and students who migrate from other majors.

#### A.S. Health Science

	Year I		Year 2		Year 3		Year 4		Year 5	
	new	cont.	new	cont.	new	cont.	new	cont.	new	cont.
Full time	20	60	50	30	60	25	70	20	80	15
Part time	10	20	20	15	25	15	30	10	35	10
Total Full time	80		80		85		90		95	
Total Part time		30		35		40		40		45
Total	110		115		125		130		140	

#### 4. Curriculum

The curriculum is based on the Common Core of the City University of New York. The Common Core includes Required Core courses in English Composition, Mathematics and Quantitative Reasoning, and Life and Physical Science. The Common Core also includes a Flexible Core of courses in Creative Expression, World Culture and Global Issues, U.S. Experience in its Diversity, Individual and Society, and Scientific World.

The A.S. in Science for Health Professions Common Core curriculum consists of general education, introductory science and mathematics courses. The Common Core courses include two semesters of English that instruct students in composition for written communications, and in Literature for reading comprehension. Anatomy and Physiology is essential for health professionals. The introductory chemistry course provides chemical topics that are necessary for students to understand biological chemistry. In mathematics the importance of statistics cannot be overemphasized due to the statistical results produced by research in health studies. There is abundance general education courses offered in the Flexible Core.

The Curriculum requirements are designed to prepare students to successfully complete bachelor degree programs. Courses in biology, chemistry, and physics include topics that are prerequisites for third and fourth year course in bachelor degree health profession programs.

Curriculum requirements include courses needed for a more detailed knowledge for the health practitioner professions. A physics survey course includes topics that are applied to chemical and biological concepts, and to body mechanics. A course in Fundamentals of Biochemistry discusses biological chemistry for. Introductory courses in Nutrition and The Science of Food are needed lower division courses for transfer to bachelor degrees in Nutrition. Microbiology is the study of microorganisms required in bachelor degree programs in the health practitioner professions. Pharmacology is the biological bases of

pharmacological substances and Pathophysiology discusses pathology that occurs in physiological systems.

### A.S. Health Science Curriculum

<b>Course &amp; Title</b>	<b>Credits</b>
<b><i>Required Common Core</i></b>	
<i>English Composition</i>	6
<i>Mathematics and Quantitative Reasoning</i> <sup>1,2</sup>	3
<i>Life and Physical Science</i> <sup>1,3</sup>	3
<b>SUBTOTAL</b>	<b>12</b>
<b><i>Flexible Core</i></b>	
<i>Creative Expression</i>	3
<i>World Culture and Global Issues</i>	3
<i>U.S. Experience in its Diversity</i>	3
<i>Individual and Society</i>	3
<i>Scientific World</i> <sup>1,4</sup>	6
<b>SUBTOTAL</b>	<b>18</b>
<b>COMMON CORE TOTAL</b>	<b>30</b>
<b><i>Curriculum Requirements</i></b>	
CHE 122 Fundamentals of General, Organic and Biological Chemistry II	4
PHY 110 General Physics	4
<i>Choose 7 elective credits from the following courses</i>	
BIO 420 Microbiology	4
CHE 125 Fundamentals of Biochemistry	4
SCI 150 Nutrition or HED 235 Nutrition for Health <sup>5</sup>	3
SCI 151 The Science of Food	3
SCI 510 Pathophysiology	3
SCI 530 Pharmacology	3
	3
	7
General Electives <sup>6</sup>	15
<b>SUBTOTAL</b>	<b>30</b>
<b>A.S. DEGREE TOTAL</b>	<b>60</b>

<sup>1</sup>. Some of these credits can be satisfied by taking STEM variants in the Common Core.

Note: This program has received a waiver to specify particular courses students must take in some areas of the Common Core. If students take different courses in these areas, they will be certified as having completed the Common Core areas, but it may not be possible for them to finish their degree program within the regular number of credits.

<sup>2</sup>. The Required Core includes a course in Mathematics and Quantitative Reasoning. MAT 150, Introduction to Statistics is recommended.

<sup>3</sup>. The Required Core includes a course in Life and Physical Science. CHE 121, Fundamentals of General, Organic, and Biological Chemistry I is recommended.



4. The Flexible Core requires two courses in Scientific World. BIO 425, Anatomy and Physiology I, BIO 426, Anatomy and Physiology II
5. Completion of SCI 150 or HED 235, and SCI 151 is expected for students intending to transfer to bachelor degree programs in Nutrition.
6. General Electives can include four credits earned from courses required in the Common Core. Pick your elective courses based on your career path. Possible elective choices include: ANT 100, CIS 100, HED 201, HED 260, HED 240, MAT 206, PSY 100, PSY 240, PSY 260, SOC 100, CIS 100 may be taken to demonstrate computer literacy. Elective courses that transfer to BS degree health profession programs are recommended.

### Articulation Agreements

The College has reached out to representative bachelor degree programs in the health professions. The Dietetics, Food, and Nutrition, the Food Service and the Exercise Science bachelor degree programs in the Lehman College Health Sciences department have communicated that the proposed A.S. Science for Health Professions program is suitable for transfer students to complete their baccalaureate educations. Articulation Agreements for transfer to Lehman College's B.S. degrees in (1) Dietetics, Food, and Nutrition - CASE Accredited program, (2) Dietetics, Food and Nutrition - Food Service and Nutrition, (3) and Exercise Science - Exercise Movement and Science are in Appendix H.

Sample semester sequences for the A.S. Health Science for the programs are shown.

### Sample Semester Sequence for A.S. in Science for Health Professions leading to B.S. in Dietetics, Food, and Nutrition

<b>First Year – Semester 1</b>	Credits
<i>Required Common Core - English Composition</i>	3
ENG 101 – English Composition I	
<i>Flexible Common Core - Creative Expression</i>	3
<i>Required Common Core - Life and Physical Science</i>	3
CHE 121 – Fundamentals of General, Organic, and Biological Chemistry I	
<i>Required Common Core - Mathematics and Quantitative Reasoning</i>	3
MAT 150 – Introduction to Statistics	
General Electives	2
Sub Total	14
<b>First Year – Semester 2</b>	
CHE 122 Fundamentals of General, Organic and Biological Chemistry II	4
<i>Flexible Common Core - Scientific World</i>	3
BIO 425 – Anatomy and Physiology I	
SCI 150 Nutrition	3
<i>Flexible Common Core – World Culture and Global Issues</i>	3
General Electives	1
Sub Total	14
<b>Second Year – Semester 1</b>	
<i>Required Common Core - English Composition</i>	3
ENG 201 - Introduction to Literature	

<i>Flexible Common Core - Scientific World</i>	3	
BIO 426 – Anatomy and Physiology II		
PHY 110 General Physics	4	
	3	
SCI 151 The Science of Food		
<i>Flexible Common Core – U.S. Experience in its Diversity</i>	3	
General Electives	1	
	Sub Total	17

<b>Second Year – Semester 2</b>		
<i>Flexible Common Core - Individual and Society</i>	3	
BIO 420 Microbiology	4	
CHE 125 Fundamentals of Biochemistry	4	
General Electives	4	
	Sub Total	15
	Total	60

**Sample Semester Sequence for A.S. in Science for Health Professions leading to  
B.S. in Food Service and Nutrition**

<b>First Year – Semester 1</b>		Credits
<i>Required Common Core - English Composition</i>	3	
ENG 101 – English Composition I		
<i>Flexible Common Core - Creative Expression</i>	3	
<i>Required Common Core - Life and Physical Science</i>	3	
CHE 121 – Fundamentals of General, Organic, and Biological Chemistry I		
<i>Required Common Core - Mathematics and Quantitative Reasoning</i>	3	
MAT 150 – Introduction to Statistics		
General Electives	2	
	Sub Total	14

<b>First Year – Semester 2</b>		
<i>Flexible Common Core - Scientific World</i>	3	
BIO 425 - Anatomy and Physiology I		
CHE 122 - Fundamentals of General, Organic and Biological Chemistry II	4	
SCI 150 Nutrition	3	
<i>Flexible Common Core - World Culture and Global Issues</i>	3	
General Electives	1	
	Sub Total	14

<b>Second Year – Semester 1</b>		
<i>Required Common Core - English Composition</i>	3	
ENG 201 - Introduction to Literature		
<i>Flexible Common Core - Scientific World</i>	3	
BIO 426 – Anatomy and Physiology II		
PHY 110 General Physics	4	

SCI 151 The Science of Food	3	
<i>Flexible Common Core – U.S. Experience in its Diversity</i>	3	
General Electives	1	
	Sub Total	17
<b>Second Year – Semester 2</b>		
<i>Flexible Common Core - Individual and Society</i>	3	
BIO 420 Microbiology	4	
General Electives	8	
	Sub Total	15
	Total	60

**Sample Semester Sequence for A.S. in Science for Health Professions leading to  
B.S in Exercise Science**

<b>First Year – Semester 1</b>		Credits
<i>Required Common Core - English Composition</i>		3
ENG 101 – English Composition I		
<i>Required Common Core - Mathematics and Quantitative Reasoning</i>		3
MAT 150 – Introduction to Statistics		
<i>Required Common Core - Life and Physical Science</i>		3
CHE 121 – Fundamentals of General, Organic, and Biological Chemistry I		
<i>Flexible Common Core - Creative Expression</i>		3
General Electives		2
	Sub Total	14

<b>First Year – Semester 2</b>		
<i>Flexible Common Core - Scientific World</i>		3
BIO 425 - Anatomy and Physiology I		
CHE 122 - Fundamentals of General, Organic and Biological Chemistry II		4
SCI 150 Nutrition		3
<i>Flexible Common Core - World Culture and Global Issues</i>		3
General Electives		1
	Sub Total	14

<b>Second Year – Semester 1</b>		
<i>Required Common Core - English Composition</i>		3
ENG 201 - Introduction to Literature		
<i>Flexible Common Core - Scientific World</i>		3
BIO 426 – Anatomy and Physiology II		
PHY 110 General Physics		4
<i>Flexible Common Core – U.S. Experience in its Diversity</i>		3
General Electives		4
	Sub Total	17

**Second Year – Semester 2**

<i>Flexible Common Core - Individual and Society</i>	3	
BIO 420 Microbiology	4	
General Electives	8	
	Sub Total	15
	Total	60

## 5. Cost Assessment

### A. Faculty

The Department of Science offers programs in Biotechnology Science, Engineering Science, Science, and Science for Forensics. The 63 current faculty members have earned Ph.D. degrees, and expertise in the physical sciences, biological sciences, engineering and the applied sciences. The Biology, Chemistry and Physics and Science courses in the curriculum are currently being offered, and many faculty members capably teach these courses.

There is one new course. A part-time faculty member with qualifications in Nutrition will be appointed to teach The Science of Food. This course may also be taught by a food chemist who can combine chemical techniques with culinary skills that introduces flavor experiences, flavor profiles, food pairing and an analysis of ingredients that go together with an understanding of cooking chemistry.

There is no need for additional full time faculty to be hired. The Department of Science has appointed many new faculty members in the past three years. New faculty members are scheduled for reassigned time before attaining tenure. As recently appointed faculty members attain tenure the increased contact hours created by any enrollment increase will be absorbed by their increased contact hour requirements. Tenured faculty members are not automatically granted reassigned time. The current number of faculty will therefore meet class any additional enrollment needs for the new program.

### B. Facilities and Equipment

The proposed program can be established without requiring BMCC to increase significantly its expenditures in space and equipment.

Laboratory facilities are available to meet projected enrollment. Budgetary needs for laboratory supplies and apparatus will be \$3000 per year and will be met by the Department of Science's annual budget. Existing facilities and equipment will be sufficient to meet program needs for at least five years.

Cost for faculty, facilities and equipment is based on the number of additional sections that would be offered in the major for a given year. The revenue generated by the program will more than offset any costs. The Program Director will supervise and administer the program. See Appendix F for cost and expenditure tables.

## 6. Evaluation

Institutional processes are in place at BMCC for evaluating the effectiveness of degree programs. These processes are appropriate for evaluating new degree programs as well. Like all other academic programs at BMCC, the new A.S. degree in Science for Health Professions will undergo self-study and external evaluation via the College's Academic Program and Review process. In addition, the College distributes annual reports containing indicators of program effectiveness to department chairs that

include, by degree program: enrollment by gender and race/ethnicity; two-year graduation, transfer, program persistence and college attrition rates; three and six year graduation rates by gender and by race/ethnicity; and, among BMCC transferees, first term GPA and one year retention rates in CUNY BA programs by gender and race/ethnicity. The enrollment data will be especially useful when evaluating the first few years of the program's existence.

Processes are also in place for direct and indirect assessment of student learning in new degree programs. At the course level, learning outcomes, or objectives, are clearly stated in each course syllabus. These objectives serve as the basis for college, departmental, program, course and section level assessment of student learning. One way in which direct assessment of student learning is conducted is through the implementation of the college's General Assessment Plan. The plan directs each academic department to assess students' learning of the relevant stated general education outcomes. Specifically, this kind of assessment is conducted in courses in which the course learning outcomes align with the general education goals. In addition, the College administers an annual Assessment of Student Learning survey of courses in which students are asked to rate their perceptions of what they have learned in the course. Instructors are provided with the results that allow them to compare their section results with the overall results for that course, and all courses taught in the program/department and the College. Faculty may then revise their courses based on the assessment results.

Appendix A  
Catalog Description of  
Required Courses

## **APPENDIX A – CATALOG DESCRIPTION OF REQUIRED COURSES**

### **BIO 420 Microbiology 4 credits, 6 hours (3 lecture hours, 3 laboratory hours)**

Micro-organisms pathogenic to humans: their characteristics, pathogenicity and modes of transmission are studied. Instruction includes a study of the sterile technique and maintenance of the sterile field.

Prerequisites: BIO 426 and CHE 118 or CHE 121 *Required in selected programs in the Health Sciences. Not accepted as a degree requirement for students in Liberal Arts.*

### **BIO 425 Anatomy and Physiology I**

### **BIO 425 Anatomy and Physiology II**

**4 credits, 6 hours (3 lecture hours, 3 laboratory hours) per term**

This two-semester course explores the human body as an integrated, functional complex of systems. Terminology, structure and function of each organ-system, with emphasis on their interrelationships, are explained. *Required of students in the health sciences.*

*Not accepted as a degree requirement for students in Liberal Arts.*

### **CHE 121 Fundamentals General, Organic and Biological Chemistry I**

### **CHE 122 Fundamentals General, Organic and Biological Chemistry II**

**4 credits, 6 hours (3 lecture hours, 3 laboratory hours) per term**

This course is a two-semester course sequence that introduces principles and concepts of general, organic and biological chemistry. The laboratory will provide experimental applications of these chemical topics. CHE 121-122 Two terms are required. They are liberal arts electives.

*They are recommended for students intending to transfer to bachelor degree Allied Health Science curricula. Not accepted as a degree requirement for students in Liberal Arts.*

### **CHE 125 Fundamentals of Biochemistry**

**4 credits, 6 hours (3 lecture hours, 3 laboratory hours)**

This course is an introduction to the principles of biochemistry that studies the structure, function, energetics and metabolism of biomolecules. The laboratory emphasizes biochemical techniques. Prerequisite: CHE 120 or CHE 122.

### **ENG 101 English Composition**

**3 credits, 3 hours**

English Composition is the standard freshman writing course. The course introduces students to academic writing. By its conclusion, students will be ready for English 201 and for the writing they will be asked to do in advanced courses across the curriculum. Students completing ENG 101 will have mastered the fundamentals of college-level reading and writing, including developing a thesis-driven response to the writing of others and following the basic conventions of citation and documentation. They will have practiced what Mike Rose calls the “habits of mind” necessary for success in college and in the larger world: summarizing, classifying, comparing, contrasting, and analyzing. Students will be introduced to basic research methods and MLA documentation and complete a research project. Students are required to take a departmental final exam that requires the composition of a 500 word thesis-driven essay comparing and contrasting two essays.

Prerequisite: Pass the CATR and CATW tests.

### **ENG 201 Introduction to Literature**

**3 credits, 3 hours**



This is a course that builds upon skills introduced in English 101. In this course, literature is the field for the development of critical reading, critical thinking, independent research, and writing skills. Students are introduced to literary criticisms and acquire basic knowledge necessary for the analysis of texts (including literary terms and some literary theory); they gain proficiency in library and internet research; and they hone their skills as readers and writers. Assignments move from close readings of literary texts in a variety of genres to analyses that introduce literary terms and broader contexts, culminating in an independent, documented, thesis-driven research paper. By the conclusion of English 201, students will be prepared for the analytical and research-based writing required in upper-level courses across the curriculum; they will also be prepared for advanced courses in literature. Prerequisite: ENG 101

**MAT 150 Introduction to Statistics**

**4 credits, 4 hours**

The course aims to teach students how to think competently about quantitative information. Students learn how to take real world problems, translate them into mathematics, and solve them. Topics include thinking critically, numbers in the real world, financial management, statistical reasoning, probability, and mathematical modeling.

**PHY 110 General Physics**

**4 credits, 5 hours (3 lecture hours, 2 laboratory hours)**

This course serves as an introduction to Physics, especially for students who are not science-oriented. A selected number of basic physical ideas are carefully examined and interpreted non-mathematically. The relevance of the scientist and his/her work to the lives of non-scientists is continually examined.

**SCI 150 Nutrition**

**3 credits, 3 hours**

This is an introduction to the fundamental principles of human nutrition. The nutrient composition of various foods is examined as well as the manner in which the nutrients are metabolized and used by the human body.

Prerequisite: One semester of science

**SCI 510 Pathophysiology**

**3 credits, 3 hours**

This course studies alterations of normal physiological processes. Included in the course are the basic principles of pathophysiology as well as application of these principles to specific organ systems.

Prerequisites: BIO 426 and CHE 118 or CHE 121

**SCI 530 Pharmacology**

**3 credits, 3 hours**

Fundamental principles and concepts in pharmacology are considered. Particular attention is given to drug action and interaction, and to the effect of drugs and toxic substances in the human organism. This course is required in selected programs in Allied Health Sciences.

Prerequisite: BIO 426 and CHE 118 or CHE 121



Appendix B  
Syllabus for New Course

**Borough of Manhattan Community College  
The City University of New York**

**Department of Science**

**Title of Course** The Science of Food  
**Course Number** SCI 151  
**Semester**  
**Credits** 3

**Class hours** 2  
**Lab hours** 2  
**Instructor**  
**Name:**  
**Office:**  
**Telephone:**  
**Email:**

**A. Course Description:** 3 credits, 4 hours (2 lecture, 2 lab)  
 This course provides an overview of the scientific principles underlying the nutritional value, storage, handling, preparation and safety of food. There is an emphasis on chemical changes and interactions in food.

**B. Prerequisites/Co-requisites**

Prerequisite: CHE 121  
 Basic Skills Prerequisites: ACR 095, ENG 095 or ESL 095, and MAT 012 or MAT 051

**C. Student Learning Outcomes**

	<b>General Education Learning Outcomes</b>	<b>Measurements (means of assessment for general education goals listed in first column)</b>
x	<b>Communication Skills-</b> Students will be able to write, read, listen and speak critically and effectively.	Students will submit written laboratory reports and answer questions in pre-lab and post-lab reports.
x	<b>Quantitative Reasoning-</b> Students will be able to use quantitative skills and the concepts and methods of mathematics to solve problems.	Students will be examined on quantitative measuring techniques and percentage calculations.
x	<b>Scientific Reasoning-</b> Students will be able to apply the concepts and methods of the natural sciences.	Examinations will assess student's knowledge on the chemical composition of food and chemical changes in food during preparation.
<input type="checkbox"/>	<b>Social and Behavioral Sciences-</b> Students will be able to apply the concepts and methods of the social sciences.	
	<b>Arts &amp; Humanities-</b> Students will be able to	

<input type="checkbox"/>	develop knowledge and understanding of the arts and literature through critiques of works of art, music, theatre or literature.	
<input type="checkbox"/>	<b>Information &amp; Technology Literacy-</b> Students will be able to collect, evaluate and interpret information and effectively use information technologies.	
<input type="checkbox"/>	<b>Values-</b> Students will be able to make informed choices based on an understanding of personal values, human diversity, multicultural awareness and social responsibility.	

<b>Course Student Learning Outcomes (Students will be able to...)</b>	<b>Measurements (means of assessment for student learning outcomes listed in first column)</b>
1. identify and define food principle terms	1. Examinations will measure students' knowledge of food principle terms including sensory testing, chemical composition, safety, preparation, storage, nutrients, and additives
2. Explain physical and chemical properties of foods.	2. Examinations will measure students' ability to explain protein, carbohydrates, lipids, and vitamins and minerals in food.
3. Apply safety principles to food.	3. Examinations will measure students' ability to distinguish between different safety problems caused by microorganisms in food.
4. compare chemical and physical changes that occur in foods during preparation	4. Examinations will measure student's ability to compare preparation methods of food products. e.g., coffees prepared differently will have different characteristics.
5. categorize foods in different groupings	5. Examinations will measure student's ability to categorize composition of foods.
6. evaluate the effects of physical and chemical properties of food products	6. Laboratory experiments will measure student's ability to evaluate chemical and physical effects on food, e.g., the effect of pH and heat on foods.

## **D Required Text & Readings**

Brown, Amy, *Understanding Food Principles and Preparation, Fifth Edition*, Cengage Learning (Stamford CT) 2015, ISBN-13: 978-1-133-60175-1

Walter, Janelle M., and Beathard, Karen, *Lab Manual for Understanding Food Principles and Preparation, Fifth Edition*, Amy C. Brown, Cengage Learning (Stamford CT) 2015  
ISBN-13: 978-1-133-60716-8

## Other Resources

## Use of Technology (if applicable)

## Evaluation & Requirements of Students

Four Examinations	4@15%	60%
Final Examination		20%
Laboratory		20%

## College Attendance Policy

At BMCC, the maximum number of absences is limited to one more hour than the number of hours a class meets in one week. For example, you may be enrolled in a three-hour class. In that class, you would be allowed 4 hours of absence (not 4 days). In the case of excessive absences, the instructor has the option to lower the grade or assign an F or WU grade.

## Academic Adjustments for Students with Disabilities

*Students with disabilities who require reasonable accommodations or academic adjustments for this course must contact the Office of Services for Students with Disabilities (Room N-769; Telephone # 220-8180). BMCC is committed to providing to all students equal access to all programs and curricula.*

## BMCC Policy on Plagiarism and Academic Integrity Statement

Plagiarism is the presentation of someone else's ideas, words or artistic, scientific, or technical work as one's own creation. Using the idea or work of another is permissible only when the original author is identified. Paraphrasing and summarizing, as well as direct quotations, require citations to the original source. Plagiarism may be intentional or unintentional. Lack of dishonest intent does not necessarily absolve a student of responsibility for plagiarism. Students who are unsure how and when to provide documentation are advised to consult with their instructors. The library has guides designed to help students to appropriately identify a cited work. The full policy can be found on BMCC's web site, [www.bmcc.cuny.edu](http://www.bmcc.cuny.edu). For further information on integrity and behavior, please consult the college bulletin (also available online).

## E. Outline of Topics

Week	Topic	Chapter
1	Introduction to Food Science	Chapter 1
	Food Selection, Sensory Criteria, Nutritional Criteria	
	Food Evaluation, Sensory Evaluation	Chapter 2

## Objective Evaluation, Physical and Chemical Tests

2	Chemistry of Food Composition Water, Carbohydrates, Lipids Proteins, Vitamins and Minerals	Chapter 3
3	Food Safety Foodborne Illness, Biological Hazards Bacterial Infections, Bacterial Intoxications Bacterial Toxin Mediated Infections Chemical and Physical Hazards in Food Preventing Foodborne Illness, Thermometer Use	Chapter 4
4	Meat: Types of Meat, Composition of Meat, Storage of Meat Poultry: Classification of Poultry Composition of Poultry, Storage of Poultry Fish and Shellfish: Classification of Fish and Shellfish Composition of Fish, Storage of Fish and Shellfish Eggs: Composition of Eggs Types of Eggs, Functions of Eggs in Foods, Storage of Eggs	Chapter 7 Chapter 8 Chapter 9 Chapter 12
5	Heat Transfer in Cooking, Heating of Foods Types of Moist Heat Preparation, Types of Dry Heat Preparation	Chapter 5
6	Vegetables and Legumes: Classification of Vegetables Composition of Vegetables, Storage of Vegetables Fruits: Classification of Fruits Composition of Fruits, Storage of Fruits	Chapter 13 Chapter 14
7	Candy: Classification of Candies, Preparation of Candy, Storage of Candy  Frozen Desserts: Types of Frozen Desserts Preparation of Frozen Desserts, Storage of Frozen Desserts	Chapter 25  Chapter 26
8	Cereal Grains and Pastas: Composition of Cereal Grains General Types of Cereal Grains, Cereal Grains Containing Gluten Gluten Free Cereal Grains, Preparation of Cereal Grains Flours and Flour Mixtures: Flours Flour Mixture Ingredients, Preparation of Baked Goods Storage of Flour and Flour Mixtures Starches and Sauces: Starch Characteristics Starch Transformations, Sauces Storage of Starches and Sauces	Chapter 16  Chapter 17  Chapter 18
9	Milk: Functions of Milk in Foods Composition of Milk, Types of Milk Milk Products in Food Preparation, Storage of Milk Products	Chapter 10

	Cheese: Classification of Cheese, Cheese Production, Food Preparation with Cheese, Storage of Cheese	Chapter 11
10	Sweeteners: Natural Sweeteners Nonnutritive Sweeteners, Functions of Sugars in Foods	Chapter 21
11	Fats and Oils: Functions of Fat in Foods Types of Fats, Fat Replacers, Food Preparation with Fats	Chapter 22
12	Baking: Preparation of Quick Breads, Varieties of Quick Breads Yeast Breads, Preparation of Yeast Breads, Types of Yeast Breads, Storage of Yeast Breads	Chapter 19 Chapter 20
13	Cakes and Cookies: Types of Cakes Preparation of Cakes, Frostings/Icings, Storage of Cakes, Preparation of Cookies, Storage of Cookies	Chapter 23
	Pastries and Pies: Types of Pastry, Preparation of Pastry, Storage of Pastry	Chapter 24
14	Food Preservation and Food Spoilage, Food Preservation Methods Cold Preservation, Heat Preservation, Nutrient Retention	Chapter 28
15	Examination Week	

#### Laboratory

Week	Experiment
1	Sensory Evaluation
2	Sensory Evaluation
3	Measuring Techniques
4	Energy Transfer
5	Comparison of Dry and Moist Heat Treatments
6	Coagulation of Fish Protein by Heat
7	Evaluation of Enzymatic Oxidative Browning
8	Effect of Treatment on Vegetable Pigments

9	Effect of Heat and Acids on Milk
10	Sugar Solutions and Crystallization
11	Effect of Stabilizer and Emulsifiers on Emulsions
12	Comparison of Baking Powders and Baking Soda
13	Effect of Gluten
14	Prevention of Microorganism Growth
15.	Examination Week

APPENDIX C  
PROGRAM  
SCHEDULING



Table 1a: Undergraduate Program Schedule: Science for Health Professions leading to Dietetics, Food and Nutrition – CASE Accredited

- Indicate **academic calendar** type:    Semester    Quarter    Trimester    Other (describe)
- Label each term in sequence, consistent with the institution's academic calendar (e.g., Fall 1, Spring 1, Fall 2)
- Use the table to show **how a typical student may progress through the program**; copy/expand the table as needed.

Term: Fall 1		Check course classification(s)			Term: Spring 1		Check course classification(s)				
Course Number & Title	Cr	LAS	Maj	New	Prerequisite(s)	Course Number & Title	Cr	LAS	Maj	New	Prerequisite(s)
CHE 121 Fundamentals of General, Organic and Biological Chemistry I	4	x	x			CHE 122 Fundamentals of General, Organic and Biological Chemistry II	4	x	x		CHE 121
ENG 101 English Composition I	3	x	x			BIO 425 Anatomy and Physiology I	4	x	x		CHE 121
MAT 150 Introduction to Statistics	4	x	x			SCI 150 Nutrition	3	x	x		CHE 121
Creative Expression	3					World Culture and Global Issues	3	x	x		
Term credit total:		14				Term credit total:		14			
Term: Fall 2		Check course classification(s)			Term: Spring 2		Check course classification(s)				
Course Number & Title	Cr	LAS	Maj	New	Prerequisite(s)	Course Number & Title	Cr	LAS	Maj	New	Prerequisite(s)
BIO 426 Anatomy and Physiology II	4	x	x		CHE 121, BIO 425	BIO 420 Microbiology	4	x	x		BIO 426, CHE 121
PHY 110 General Physics	4	x	x			CHE 125 Fundamentals of Biochemistry Individual and Society	4	x	x		CHE 122
SCI 151 The Science of Food	3	x	x	x	CHE 121	Elective	4				
ENG 201 English Composition II	3	x	x		ENG 101						
U.S. Experience in its Diversity	3	x	x								
Term credit total:		17				Term credit total:		15			
Term:		Check course classification(s)			Term:		Check course classification(s)				
Course Number & Title	Cr	LAS	Maj	New	Prerequisite(s)	Course Number & Title	Cr	LAS	Maj	New	Prerequisite(s)
Term credit total:						Term credit total:					
Term:		Check course classification(s)			Term:		Check course classification(s)				
Course Number & Title	Cr	LAS	Maj	New	Prerequisite(s)	Course Number & Title	Cr	LAS	Maj	New	Prerequisite(s)
Term credit total:						Term credit total:					

<b>Program Totals:</b>	<b>Credits:</b>	<b>Liberal Arts &amp; Sciences:</b>	<b>Major:</b>	<b>Elective &amp; Other:</b>
Cr: credits	LAS: liberal arts & sciences	Maj: major requirement	New: new course	Prerequisite(s): list prerequisite(s) for the noted courses

Table 1b: Undergraduate Program Schedule: Science for Health Professions leading to Dietetics, Food and Nutrition – Food Service and Nutrition

- Indicate **academic calendar** type:    Semester    Quarter    Trimester    Other (describe)
- Label each term in sequence, consistent with the institution's academic calendar (e.g., Fall 1, Spring 1, Fall 2)
- Use the table to show **how a typical student may progress through the program**; copy/expand the table as needed.

Term: Fall 1				Term: Spring 1					
Course Number & Title	Cr	Check course classification(s)			Course Number & Title	Cr	Check course classification(s)		
		LAS	Maj	New	LAS	Maj	New	Prerequisite(s)	
CHE 121 Fundamentals of General, Organic and Biological Chemistry I	4	x	x		CHE 122 Fundamentals of General, Organic and Biological Chemistry II	4	x	CHE 121	
ENG 101 English Composition I	3	x	x		BIO 425 Anatomy and Physiology I	4	x	CHE 121	
MAT 150 Introduction to Statistics	4	x	x		SCI 150 Nutrition	3	x	CHE 121	
Creative Expression	3				World Culture and Global Issues	3	x		
Term credit total:	14				Term credit total:	14			
Term: Fall 2				Term: Spring 2					
Course Number & Title	Cr	Check course classification(s)			Course Number & Title	Cr	Check course classification(s)		
		LAS	Maj	New	LAS	Maj	New	Prerequisite(s)	
BIO 426 Anatomy and Physiology II	4	x	x		BIO 420 Microbiology	4	x	BIO 426, CHE 121	
PHY 110 General Physics	4	x	x		Individual and Society	3	x		
SCI 151 The Science of Food	3	x	x	x	General Electives	8			
ENG 201 English Composition II	3	x	x						
U.S. Experience in its Diversity	3	x	x						
Term credit total:	17				Term credit total:	15			
Term:				Term:					
Course Number & Title	Cr	Check course classification(s)			Course Number & Title	Cr	Check course classification(s)		
		LAS	Maj	New	LAS	Maj	New	Prerequisite(s)	
Term credit total:					Term credit total:				
Term:				Term:					
Course Number & Title	Cr	Check course classification(s)			Course Number & Title	Cr	Check course classification(s)		
		LAS	Maj	New	LAS	Maj	New	Prerequisite(s)	
Term credit total:					Term credit total:				
Program Totals:				Program Totals:					
		Credits:		Liberal Arts & Sciences:		Major:		Elective & Other:	
Cr: credits	LAS:	liberal arts & sciences	Maj:	major requirement	New:	new course	Prerequisite(s):	list prerequisite(s) for the	noted courses

Table 1c: Undergraduate Program Schedule: Science for Health Professions leading to Exercise Movement and Science

- Indicate **academic calendar** type:    x\_Semester    Quarter    Trimester    Other (describe)
- Label each term in sequence, consistent with the institution's academic calendar (e.g., Fall 1, Spring 1, Fall 2)
- Use the table to show **how a typical student may progress through the program**; copy/expand the table as needed.

<b>Term: Fall 1</b>		Check course classification(s)			<b>Term: Spring 1</b>		Check course classification(s)			
Course Number & Title	Cr	LAS	Maj	New	LAS	Maj	New	Prerequisite(s)		
CHE 121 Fundamentals of General, Organic and Biological Chemistry I	4	x	x		x			CHE 121		
ENG 101 English Composition I	3	x	x		x	x		CHE 121		
MAT 150 Introduction to Statistics	4	x	x	X	x	x		CHE 121		
Creative Expression	3				x	x				
<b>Term credit total:</b>	<b>14</b>									
<b>Term: Fall 2</b>		Check course classification(s)			<b>Term: Spring 2</b>		Check course classification(s)			
Course Number & Title	Cr	LAS	Maj	New	LAS	Maj	New	Prerequisite(s)		
BIO 426 Anatomy and Physiology II	4	x	x		x	x		BIO 426, CHE 122		
PHY 110 General Physics	4	x	x		x					
ENG 201 English Composition II	3	x	x		x	x				
U.S. Experience in its Diversity	3	x	x							
General Elective	3									
<b>Term credit total:</b>	<b>17</b>									
<b>Term:</b>		Check course classification(s)			Check course classification(s)					
Course Number & Title	Cr	LAS	Maj	New	LAS	Maj	New	Prerequisite(s)		
<b>Term credit total:</b>										
<b>Term:</b>		Check course classification(s)			Check course classification(s)					
Course Number & Title	Cr	LAS	Maj	New	LAS	Maj	New	Prerequisite(s)		
<b>Term credit total:</b>										
<b>Program Totals:</b>		<b>Credits:</b>			<b>Liberal Arts &amp; Sciences:</b>			<b>Major:</b>		
<b>Cr: credits noted courses</b>		<b>LAS: liberal arts &amp; sciences</b>			<b>Maj: major requirement</b>			<b>Prerequisite(s): list prerequisite(s) for the</b>		

APPENDIX D  
FACULTY  
TEACHING  
ASSIGNMENTS

Faculty teaching at the graduate level must have an earned doctorate/terminal degree or demonstrate special competence in the field. Provide information on faculty members who are **full-time at the institution** and who will be teaching each course in the major field or graduate program. The application addendum for professional licensure, teacher certification, or educational leadership certification programs may provide additional directions for those types of proposals.

<b>Faculty Member Name and Title</b> (include and identify Program Director)	<b>Program Courses to be Taught</b>	<b>Percent Time to Program</b>	<b>Highest and Other Applicable Earned Degrees &amp; Disciplines</b> (include College/University)	<b>Additional Qualifications:</b> list related certifications/licenses; occupational experience; scholarly contributions, etc.
Carlos Alva	CHE 122	11	Ph.D. Chemistry CUNY Graduate Center	
Mahmoud Ardebili	PHY 110	7	Ph.D. Engineering? CUNY Graduate Center	
Mario Benavides	BIO 420, BIO 425, BIO 426	11	Ph.D. Biology CUNY Graduate Center	
Marcos Betancourt	PHY 110	11	Ph.D. Physics University of California, San Diego	
Susie Boydston-White	CHE 121, CHE 122, CHE 125	11	Ph.D. Biochemistry CUNY Graduate Center	
Ling Chen	CHE 121, CHE 122	11	Ph.D. Biochemistry New York University	
Anthony Creaco	PHY 110	7	Ph.D. Electrical Engineering Polytechnic University	
Bogdan Danilla	PHY 110	7	Ph.D. Physics Western Michigan University	
Patricia DeLeon	BIO 420, BIO 425, BIO 426	11	Ph.D. Biology CUNY Graduate Center	
Nipa Deora	CHE 121	11	Ph.D. Chemistry Virginia Polytechnic Institute	



Faculty teaching at the graduate level must have an earned doctorate/terminal degree or demonstrate special competence in the field. Provide information on faculty members who are **full-time at the institution** and who will be teaching each course in the major field or graduate program. The application addendum for professional licensure, teacher certification, or educational leadership certification programs may provide additional directions for those types of proposals.

<b>Faculty Member Name and Title</b> (include and identify Program Director)	<b>Program Courses to be Taught</b>	<b>Percent Time to Program</b>	<b>Highest and Other Applicable Earned Degrees &amp; Disciplines</b> (include College/University)	<b>Additional Qualifications:</b> list related certifications/licenses; occupational experience; scholarly contributions, etc.
Brahmadeo Dewprashed Program Director	CHE 121, CHE 122, CHE 125	11	Ph.D. Biochemistry Oklahoma State University	
Ozgur Ecevit	CHE 121	11	Ph.D. Chemistry CUNY Graduate Center	
Lauren Goodwyn	BIO 425, BIO 426	11	Ph.D. Biology University of Texas- Austin	
Alexander Gossiau	BIO 425	11	Ph.D. Cell and Molecular Biology University of Bremen	
Joel Hernandez	PHY 110	7	Ph.D. Physics CUNY Graduate Center	
Frederich Hoffman	PHY 110	11	Ph.D. Physical Chemistry Technical University of Munich	
Revathi Iyengar	CHE 121, CHE 122	11	Ph.D. Chemistry CUNY Graduate Center	
Charles Kosky	CHE 121, CHE 122	11	Ph.D. Chemistry Polytechnic Institute of Brooklyn	
Levant Kurt	PHY 110	7	Physics CUNY Graduate Center	
Jun Liang	BIO 425, BIO 426, CHE 125	11	Biochemistry CUNY Graduate Center	
Abel Navarro	CHE 121, CHE 122	11	Chemistry New York University	

Faculty teaching at the graduate level must have an earned doctorate/terminal degree or demonstrate special competence in the field. Provide information on faculty members who are **full-time at the institution** and who will be teaching each course in the major field or graduate program. The application addendum for professional licensure, teacher certification, or educational leadership certification programs may provide additional directions for those types of proposals.

<b>Faculty Member Name and Title</b> (include and identify Program Director)	<b>Program Courses to be Taught</b>	<b>Percent Time to Program</b>	<b>Highest and Other Applicable Earned Degrees &amp; Disciplines</b> (include College/University)	<b>Additional Qualifications:</b> list related certifications/licenses; occupational experience; scholarly contributions, etc.
Peter Nguyen	BIO 420, BIO 425, BIO 426	11	Ph.D. Biology St. John's University	
Rafael Niyazov	PHY 110	7	Ph.D. Physics Tashkent Engineering Institute of Technology	
Christine Priano	BIO 425, BIO 426	11	Ph.D. Genetics and Development Columbia University	
John Raynor	SCI 150, SCI 510, SCI 530	11	Ph.D. Physiology University of Michigan	
Shanti Rywkin	CHE 121, CHE 122	11	Ph.D. Chemistry CUNY Graduate Center	
Sarah Salm	BIO 420, BIO 425, BIO 426	11	Ph.D. Biology University of the Witwatersrand	
Edgar Schnebel	BIO 425, BIO 426	11	Ph.D. Biology CUNY Graduate Center	
Shaiva Tsiklavri	PHY 110	7	Ph.D. Atomic and Nuclear Physics University of Moscow	
Jane Tezapsidis	SCI 150, SCI 510, SCI 530	11	Ph.D. Biochemistry Imperial College of Science and Technology	
Daniel Torres	CHE 121	11	Ph.D. Chemistry University of Barcelona	
Chiaki Yanagisawa	PHY 110	7	Ph.D. Physics University of Tokyo	

Faculty teaching at the graduate level must have an earned doctorate/terminal degree or demonstrate special competence in the field. Provide information on faculty members who are **full-time at the institution** and who will be teaching each course in the major field or graduate program. The application addendum for professional licensure, teacher certification, or educational leadership certification programs may provide additional directions for those types of proposals.

<b>Faculty Member Name and Title (include and identify Program Director)</b>	<b>Program Courses to be Taught</b>	<b>Percent Time to Program</b>	<b>Highest and Other Applicable Earned Degrees &amp; Disciplines (include College/University)</b>	<b>Additional Qualifications: list related certifications/licenses; occupational experience; scholarly contributions, etc.</b>
Hasan Yumak	CHE 121, CHE 122	11	Ph.D. Chemistry CUNY Graduate Center	
Igor Zaitzev	BIO 425, BIO 426	11	Ph.D. Biology Irkutsk State University	
Shengkun Zhang	PHY 110	7	Ph.D. Physics	



APPENDIX E  
FACULTY TO  
BE HIRED

**Table 3: Part-Time Faculty**

Faculty teaching at the graduate level must have an earned doctorate/terminal degree or demonstrate special competence in the field. Provide information on part-time faculty members who will be teaching each course in the major field or graduate program. The application addendum for professional licensure, teacher certification, or educational leadership certification programs may provide additional directions for those types of proposals.

Faculty Member Name and Title	Program Courses to be Taught	Highest and Other Applicable Earned Degrees & Disciplines (include College/University)	Additional Qualifications: list related certifications/licenses; occupational experience; scholarly contributions, etc.				
Adjunct Lecturer	SCI 151 – The Science of Food <table border="1" data-bbox="560 1003 690 1444"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>					MS Nutrition	
	<table border="1" data-bbox="734 1003 863 1444"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>						
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APPENDIX F  
EXPENDITURES  
FOR THE  
PROGRAM

**Table 5: New Resources**

Expenditures	Year 1 Academic Year <sup>2</sup>	Year 2 Academic Year <sup>†</sup>	Year 3 Academic Year <sup>†</sup>	Year 4 Academic Year <sup>†</sup>	Year 5 Academic Year <sup>†</sup>
Full Time Faculty	\$ -	\$ -	\$ -	\$ -	\$ -
Part Time Faculty	\$ 100.31	\$ 102.31	\$ 104.36	\$ 106.45	\$ 108.58
Full Time Staff	\$ -	\$ -	\$ -	\$ -	\$ -
Part Time Staff	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Library (Includes Staffing)	\$ 500.00	\$ 400.00	\$ 300.00	\$ 200.00	\$ 100.00
Equipment	\$ -	\$ -	\$ -	\$ -	\$ -
Laboratories	\$ 1,500.00	\$ 1,050.00	\$ 1,000.00	\$ 950.00	\$ 900.00
Supplies & Expenses (Other than Personal Services)	\$ 4,100.00	\$ 3,700.00	\$ 3,300.00	\$ 1,900.00	\$ 2,000.00
Capital Expenditures	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -
Total all	6200.31	5252.31	4704.36	3156.45	3108.58

[1] Specify the inflation rate used for projections.

[2] Specify the academic year.

[3] Include fringe benefits.

[4] New resources means resources engendered specifically by the proposed program. The new resources from the previous year should be carried over to the following year, new resources with adjustments for inflation, if a continuing cost.

[5] Specify what is included in "other" category, (e.g., student financial aid).

**The Five-Year Financial Projections for Program**

<b>DIRECT OPERATING EXPENSES</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
Include additional expenses incurred by other programs when satisfying needs of new program. Faculty need should be commensurate with "net section needs" based on enrollment (see "Enroll & Seat Need Projections" tab)					
<b>Current Full Time Faculty Overload (include Summer)</b>					
New Full Time Faculty Base Salary (list separately)	0	0	0	0	0
New Full Time Faculty Overload (include Summer)	0	0	0	0	0
New Faculty Re-assigned Time (list separately)	0	0	0	0	0
Full Time Employee Fringe Benefits (41.6%)	0	0	0	0	0
<b>Total (Links to Full-Time Faculty on Program Exp Worksheet)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Part Time Faculty Actual Salaries</b>	80.7	82.31	83.96	85.64	87.35
Part Time Faculty Actual Fringe Benefits (24.3%)	19.6101	20.00133	20.40228	20.81052	21.22605
<b>Total (Links to Part-Time Faculty Program Exp Worksheet)</b>	<b>\$ 100.31</b>	<b>\$ 102.31</b>	<b>\$ 104.36</b>	<b>\$ 106.45</b>	<b>\$ 108.58</b>
<b>Full Time Staff Base Salary (list separately)</b>	0	0	0	0	0
<b>Full Time Staff Fringe Benefits (41.6%)</b>	0	0	0	0	0
<b>Total (Links to Full-Time Staff on Program Exp Worksheet)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>PART-TIME STAFF</b> (do not include library staff in this section)					
Part Time Staff Base Salary (list separately)	0	0	0	0	0
Faculty Replacement Costs (replacement of full-time faculty - e.g. on release time - with part-time faculty)	0	0	0	0	0
Graduate Assistants	0	0	0	0	0
Student Hourly	0	0	0	0	0
Part Time Employee Fringe Benefits (24.3%)	0	0	0	0	0
<b>Total</b> (Links to Part-Time Staff on Program Exp Worksheet)	\$ -	\$ -	\$ -	\$ -	\$ -
<b>LIBRARY</b>					
Library Resources	500	400	300	200	100
Library Staff Full Time (List Separately)	0	0	0	0	0
Full Time Staff Fringe Benefits (41.6%)	0	0	0	0	0
Library Staff Part Time (List Separately)	0	0	0	0	0
Part Time Employee Fringe Benefits (24.3%)	0	0	0	0	0
<b>TOTAL</b> (Links to Library on Program Exp Worksheet)	\$ 500.00	\$ 400.00	\$ 300.00	\$ 200.00	\$ 100.00
<b>EQUIPMENT</b>					
Computer Hardware					
Office Furniture					
Other (Specify)					
<b>Total</b> (Links to Equipment on Program Exp Worksheet)	\$ -	\$ -	\$ -	\$ -	\$ -
<b>LABORATORIES</b>					
Laboratory Equipment	1000	500	400	300	200
Other (list separately)	500	550	600	650	700
<b>TOTAL</b> (Links to Laboratories on Program Exp Worksheet)	\$ 1,500.00	\$ 1,050.00	\$ 1,000.00	\$ 950.00	\$ 900.00

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>SUPPLIES AND EXPENSES (OTPS)</b>					
Consultants and Honoraria	500	500	500	500	500
Office Supplies	500	600	700	800	900
Instructional Supplies					
Faculty Development					
Travel and Conferences	600	600	600	600	600
Membership Fees					
Advertising and Promotion	1500	1000	500		
Accreditation					
Computer Software	1000	1000	1000		
Computer License Fees					
Computer Repair and Maintenance					
Equipment Repair and Maintenance					
<b>New Total Supplies and OTPS Expenses (Links to Supplies on Program Exp Worksheet)</b>	<b>\$4,100.00</b>	<b>\$3,700.00</b>	<b>\$3,300.00</b>	<b>\$1,900.00</b>	<b>\$2,000.00</b>
<b>CAPITAL EXPENDITURES</b>					
Facility Renovations	0	0	0	0	0
Classroom Equipment					
Other (list separately)					
<b>TOTAL (Links to Capital Expenditures on Program Exp Worksheet)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Other (list separately)</b>	0	0	0	0	0
<b>TOTAL (Links to Other on Program Exp Worksheet)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>



APPENDIX G  
PROJECTED  
REVENUE  
TABLE

**Projected Revenue Related to the Proposed Program**

Revenues[1]	1 <sup>st</sup> Year Year[2]	2 <sup>nd</sup> Year Academic Year†	3 <sup>rd</sup> Year Academic Year†	4 <sup>th</sup> Year Academic Year†	5 <sup>th</sup> Year Academic Year†
Tuition Revenue[3]					
01. From Existing Sources[4]	\$270,000	\$144,000	\$122,400	\$99,878	\$76,407
02. From New Sources[5]	\$90,000	\$240,000	\$293,760	\$349,574	\$407,504
<b>03. Total</b>	\$360,000	\$384,000	\$416,160	\$449,453	\$483,911
State Revenue[6]					
04. From Existing Sources <sup>§</sup>	\$145,320	\$72,660	\$60,550	\$48,440	\$36,330
05. From New Sources <sup>**</sup>	\$48,440	\$121,100	\$145,320	\$169,540	\$193,760
<b>06. Total</b>	\$193,760	\$193,760	\$205,870	\$217,980	\$230,090
Other Revenue[7]					
07. From Existing Sources <sup>§</sup>	\$0	\$0	\$0	\$0	\$0
08. From New Sources <sup>**</sup>	\$0	\$0	\$0	\$0	\$0
<b>09. Total</b>	\$0	\$0	\$0	\$0	\$0
<b>Grand Total[8]</b>					
10. From Existing Sources <sup>§</sup>	\$415,320	\$216,660	\$182,950	\$148,318	\$112,737
11. From New Sources <sup>**</sup>	\$138,440	\$361,100	\$439,080	\$519,114	\$601,264
<b>TOTAL</b>	\$553,760	\$577,760	\$622,030	\$667,433	\$714,001

[1] Specify the inflation rate used for projections.

[2] Specify the academic year.

[3] Please explain how tuition revenue was calculated.

[4] Existing sources means revenue generated by continuing students. Account for attrition and graduation rates.

[5] New sources means revenue engendered by new students. The revenue from new sources from one year should be carried over to the next year as revenues from continuing students with adjustments for inflation.

[6] Public institutions should include here regular State appropriations applied to the program.

[7] Specify what is included in "other" category.

[8] Enter total of Tuition, State and Other Revenue, from Existing or New Sources.

**The Five-Year Revenue Projections for Program  
COMMUNITY COLLEGE WORKSHEET**

Year 1 = Fall 2014

<b>EXISTING FULL-TIME STUDENTS</b>	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Year Five</b>
<b>Tuition &amp; Fees:</b>					
<b># of EXISTING FULL-TIME, In-State Students</b> (linked from "Enroll & Seat Need Projections")	60	30	25	20	15
<b>Tuition Income</b> (calculates 2% increase per year after Fall 2015)	\$4,500	\$4,800	\$4,896	\$4,994	\$5,094
<b>Total Tuition</b>	\$270,000	\$144,000	\$122,400	\$99,878	\$76,407
<b>Student Fees</b> (enter ANNUAL program fees other than standard CUNY fees)					
<b>Total Fees</b>	0	0	0	0	0
<b>Total In-State Tuition &amp; Fees</b>	\$270,000	\$144,000	\$122,400	\$99,878	\$76,407
<b>Tuition &amp; Fees:</b>					
<b># of EXISTING FULL-TIME, Out-of-State Students</b> (linked from "Enroll & Seat Need Projections")	0	0	0	0	0
<b>Annual Avg # of Credits per FT student (24-30)</b>					
<b>Tuition Income</b> (Specify Rate per credit. Calculates 2% annual increase after Fall 2015)	\$290	\$305	\$311	\$317	\$324
<b>Total Tuition</b>	\$0	\$0	\$0	\$0	\$0
<b>Student Fees</b> (enter ANNUAL program fees other than standard CUNY fees)					
<b>Total Fees</b>	0	0	0	0	0
<b>Total Out-of-State Tuition &amp; Fees</b>	\$0	\$0	\$0	\$0	\$0
<b>TOTAL EXISTING FULL-TIME TUITION REVENUE</b>	\$270,000	\$144,000	\$122,400	\$99,878	\$76,407

<b>EXISTING PART-TIME STUDENTS</b>	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Year Five</b>
<b>Tuition &amp; Fees:</b>					
<b># of EXISTING PART-TIME, In-State Students</b> (linked from "Enroll & Seat Need Projections")	20	15	15	10	10
<b>Total Enrolled Credits</b> (Enter Avg # credits per student per year-Fall+Spring+Summer -- i.e. 6 Fall, 6 Spring, 3 Summer=15)					
<b>Tuition Income</b> (Specify Rate per credit. Calculates 2% increase per year after Fall 2015)	\$185	\$195	\$199	\$203	\$207
<b>Total Tuition</b>	\$0	\$0	\$0	\$0	\$0
<b>Student Fees</b> (enter ANNUAL program fees other than standard CUNY fees)					
<b>Total Fees</b>	0	0	0	0	0
<b>Total In-State Tuition &amp; Fees</b>	\$0	\$0	\$0	\$0	\$0
<b>Tuition &amp; Fees:</b>					
<b># of EXISTING PART-TIME Out of State Students</b> (linked from "Enrollment and Seat Need Projections")	0	0	0	0	0
<b>Total Enrolled Credits</b> (Enter Avg # credits per student per year-Fall+Spring+Summer -- i.e. 6 Fall, 6 Spring, 3 Summer=15)					
<b>Tuition Income</b> (Specify Rate per credit. Calculates 2% increase per year after Fall 2015)	\$290	\$305	\$311	\$317	\$324
<b>Total Tuition</b>	\$0	\$0	\$0	\$0	\$0
<b>Student Fees</b> (enter ANNUAL program fees other than standard CUNY fees)					
<b>Total Fees</b>	0				
<b>Total Out-of-State Tuition &amp; Fees</b>	\$0	\$0	\$0	\$0	\$0
<b>TOTAL EXISTING PART TIME REVENUE</b>	\$0	\$0	\$0	\$0	\$0
<b>TOTAL EXISTING REVENUE (LINKS TO REVENUE SPREADSHEET ROW 5)</b>	\$270,000	\$144,000	\$122,400	\$99,878	\$76,407

<b>NEW FULL-TIME STUDENTS</b>					
	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Year Five</b>
<b>Tuition &amp; Fees:</b>					
<b># of NEW FULL-TIME, In-State Students</b> (linked from "Enroll & Seat Need Projections")	20	50	60	70	80
<b>Tuition Income</b> (Calculates 2% increase per year after Fall 2015)	\$4,500	\$4,800	\$4,896	\$4,994	\$5,094
<b>Total Tuition</b>	\$90,000	\$240,000	\$293,760	\$349,574	\$407,504
<b>Student Fees</b> (enter ANNUAL program fees other than standard CUNY fees)					
<b>Total Fees</b>	0	0	0	0	0
<b>Total In-State Tuition &amp; Fees</b>	\$90,000	\$240,000	\$293,760	\$349,574	\$407,504
<b>Tuition &amp; Fees:</b>					
<b># of NEW FULL-TIME, Out-of -State Students</b> (linked from "Enroll & Seat Need Projections")	0	0	0	0	0
<b>Annual Avg # of Credits per FT student (24-30)</b>					
<b>Tuition Income</b> (Specify Rate per credit. Calculates 2% increase per year after Fall 2015)	\$290	\$305	\$311	\$317	\$324
<b>Total Tuition</b>	\$0	\$0	\$0	\$0	\$0
<b>Student Fees</b> (enter ANNUAL program fees other than standard CUNY fees)					
<b>Total Fees</b>	0	0	0	0	0
<b>Total Out-of-State Tuition &amp; Fees</b>	\$0	\$0	\$0	\$0	\$0
<b>TOTAL NEW FULL-TIME TUITION REVENUE</b>	\$90,000	\$240,000	\$293,760	\$349,574	\$407,504

<b>NEW PART-TIME STUDENTS</b>					
	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Year Five</b>
<b>Tuition &amp; Fees:</b>					
<b># of NEW PART-TIME, In-State Students</b> (linked from "Enroll & Seat Need Projections")	10	20	25	30	35
<b>Total Enrolled Credits</b> (Enter Avg # credits per student per year-Fall+Spring+Summer -- i.e. 6 Fall, 6 Spring, 3 Summer=15)					
<b>Tuition Income</b> (Specify Rate per credit. Calculates 2% increase per year after Fall 2015)	\$185	\$195	\$199	\$203	\$207
<b>Total Tuition</b>	\$0	\$0	\$0	\$0	\$0
<b>Student Fees</b> (enter ANNUAL program fees other than standard CUNY fees)					
<b>Total Fees</b>	0	0	0	0	0
<b>Total In-State Tuition &amp; Fees</b>	\$0	\$0	\$0	\$0	\$0
<b>Tuition &amp; Fees:</b>					
<b># of NEW PART-TIME, Out-of-State Students</b>	0	0	0	0	0
<b>Total Enrolled Credits</b> (Enter Avg # credits per student per year-Fall+Spring+Summer -- i.e. 6 Fall, 6 Spring, 3 Summer=15)					
<b>Tuition Income</b> (Specify Rate per credit) calculates 2% increase per year	\$290	\$305	\$311	\$317	\$324
<b>Total Tuition</b>	\$0	\$0	\$0	\$0	\$0
<b>Student Fees</b> (enter ANNUAL program fees other than standard CUNY fees)					
<b>Total Fees</b>	0	0	0	0	0
<b>Total Out-of-State Tuition &amp; Fees</b>	\$0	\$0	\$0	\$0	\$0
<b>TOTAL NEW PART-TIME REVENUE</b>	\$0	\$0	\$0	\$0	\$0
<b>TOTAL NEW REVENUE (LINKS TO REVENUE SPREADSHEET ROW 7)</b>	\$90,000	\$240,000	\$293,760	\$349,574	\$407,504

	Year One	Year Two	Year Three	Year Four	Year Five
<b>STATE REVENUE</b>					
# EXISTING FTEs	60	30	25	20	15
Appropriation per FTE	\$2,422	\$2,422	\$2,422	\$2,422	\$2,422
<b>STATE REVENUE FROM EXISTING SOURCES -LINKS TO REVENUE SPREADSHEET ROW 9</b>	<b>\$145,320</b>	<b>\$72,660</b>	<b>\$60,550</b>	<b>\$48,440</b>	<b>\$36,330</b>
# NEW FTEs	20	50	60	70	80
Appropriation per FTE	\$2,422	\$2,422	\$2,422	\$2,422	\$2,422
<b>STATE REVENUE FROM NEW SOURCES -LINKS TO REVENUE SPREADSHEET ROW 11</b>	<b>\$48,440</b>	<b>\$121,100</b>	<b>\$145,320</b>	<b>\$169,540</b>	<b>\$193,760</b>

	Year One	Year Two	Year Three	Year Four	Year Five
<b>OTHER REVENUE</b>					
Other Revenue From Existing Sources (specify and explain)-LINKS TO REVENUE SPREADSHEET ROW 13)					
Other Revenue New (specify and explain) (LINKS TO REVENUE SPREADSHEET ROW 15)					



<b>Projected Enrollment</b>	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Year Five</b>
<b>Existing Full-time Students</b>					
In-State	60	30	25	20	15
Out-of-State					
<b>Existing Full-time Total</b>	<b>60</b>	<b>30</b>	<b>25</b>	<b>20</b>	<b>15</b>
<b>Existing Part-time Students</b>					
In-State	20	15	15	10	10
Out-of-State					
<b>Existing Part-time Total</b>	<b>20</b>	<b>15</b>	<b>15</b>	<b>10</b>	<b>10</b>
<b>New Full-time Students</b>					
In-State	20	50	60	70	80
Out-of-State					
<b>NEW Full-time Total</b>	<b>20</b>	<b>50</b>	<b>60</b>	<b>70</b>	<b>80</b>
<b>New Part-time Students</b>					
In-State	10	20	25	30	35
Out-of-State					
<b>New Part-time Total</b>	<b>10</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>

NOTES: New students are students who would not otherwise have be enrolled in your college if this program were not offered. The proposal text should explain the basis for this enrollment estimate.

Existing Students are students currently enrolled in another program at your college, or students who would have enrolled in another program at your college, had the new program not been established.

<b>Section Seats per Student</b>	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Year Five</b>
<b>Full-time Students</b>	20	80	85	90	105
Existing Courses	9	9	9	9	9
New Courses	1	1	1	1	1
<b>Total (normally equals 10)</b>					
<b>Part-Time Students</b>	30	35	40	40	45
Existing Courses	4	6	4	6	4
New Courses	1	1	1	1	1
<b>Total (normally equals 4-6)</b>					



<b>Seat &amp; Section Needs</b>	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Year Five</b>
<b>Seat Need for Existing Students</b>					
Existing Courses	620	360	285	240	175
New Courses	80	45	40	30	25
<b>Seat Need for New Students</b>					
Existing Courses	220	570	640	810	860
New Courses	30	70	85	100	115
<b>Total Seat Need</b>					
Existing Courses	840	930	925	1,050	1,035
Avail. Seats in Existing Courses					
Net Seat Need in Existing	840	930	925	1,050	1,035
New Courses	110	115	125	130	140
<b>All Courses</b>	<b>950</b>	<b>1,045</b>	<b>1,050</b>	<b>1,180</b>	<b>1,175</b>
<b>Average Seats per Section</b>	24	24	24	24	24
Existing Courses	4	6	4	6	4
New Courses	1	1	1	1	1
<b>Net New Section Need</b>					
Existing Courses	210	155	231.25	175	258.75
New Courses	110	115	125	130	140
<b>Total</b>	<b>320</b>	<b>270</b>	<b>356.25</b>	<b>305</b>	<b>398.75</b>

APPENDIX H  
ARTICULATION  
AGREEMENTS



**LEHMAN**  
COLLEGE

## ARTICULATION AGREEMENT FORM

### A. SENDING AND RECEIVING INSTITUTIONS

Sending College: Borough of Manhattan Community College/CUNY  
Department: Science  
Program: Science for Health Professions  
Degree: Associate in Science (A.S.)

Receiving College: Lehman College/CUNY  
Department: Health Sciences  
Program: Dietetics, Food and Nutrition – Option I CASE Accredited  
Degree: Bachelor of Science (B.S.)

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### B. ADMISSION REQUIREMENTS FOR SENIOR COLLEGE PROGRAM

Associate of Science Degree Graduates of CUNY Colleges are exempt from all Required Core, Flexible Core, and Lower Level College Option Lehman College General Education requirements. To earn a Bachelor's Degree at Lehman College, CUNY Associate degree graduates need to:

- complete at minimum 50% of the courses required for the major/minor in residence;
- two upper-level college option interdisciplinary course;
- two writing intensive courses;
- elective courses, if needed;
- 90 liberal arts credit are required for the BA, 60 liberal arts credits for the BS and the 30 Liberal arts credits for the BFA.

Determination of the 60 Liberal Arts credits required for the baccalaureate degree in accordance with New York State Education Department requirement will be made by Lehman College.

Borough of Manhattan Community College graduates with Associate Degree in Science for Health Professions will receive 60 credits toward the Bachelor of Science, Dietetics, Food, and Nutrition at Lehman College. In addition, they will be deemed to have met all Required Core, Flexible Core, and Lower Level College Option Lehman College General Education requirements at Lehman College.

Total transfer credit granted toward the baccalaureate degree: **60**

Total additional credits required at the senior college to complete baccalaureate degree: **60**

C. COURSE TO COURSE EQUIVALENCIES AND TRANSFER CREDIT AWARDED

BMCC - Sending College		Lehman - Receiving College Equivalent		Credit Granted
Course & Title	Cr.	Course & Title	Cr.	
<b>Required Common Core</b>				
<i>English Composition</i>		<i>English Composition</i>		
ENG 101 English Composition I	3	ENG 110 Principles of Effective Writing I	3	3
ENG 201 English Composition II	3	ENG 120 Principles of Effective Writing II	3	3
<i>Mathematics and Quantitative Reasoning<sup>1</sup></i>		<i>Mathematics and Quantitative Reasoning</i>		
MAT 150 Introduction to Statistics	3	MAT 132 Introduction to Statistics	4	4
<i>Life and Physical Science<sup>1</sup></i>		<i>Life and Physical Science</i>		
CHE 121 Fundamentals of General, Organic and Biological Chemistry I	3	CHE 114 Essentials of General Chemistry Lecture	3	4
		CHE 115 Essentials General Chemistry Laboratory	1.5	
<b>SUBTOTAL</b>	<b>12</b>	<b>SUBTOTAL</b>		<b>14</b>
<b>Flexible Core</b>				
<i>Creative Expression</i>		<i>Creative Expression</i>		
	3		3	3
<i>World Culture and Global Issues</i>		<i>World Culture and Global Issues</i>		
	3		3	3
<i>U.S. Experience in its Diversity</i>		<i>U.S. Experience in its Diversity</i>		
	3		3	3
<i>Individual and Society</i>		<i>Individual and Society</i>		
	3		3	3
<i>Scientific World<sup>1,2</sup></i>		<i>Scientific World</i>		
BIO 425 Anatomy and Physiology I	3	BIO 181 Anatomy and Physiology I	4	8
BIO 426 Anatomy and Physiology II	3	BIO 182 Anatomy and Physiology II	4	
<b>SUBTOTAL</b>	<b>18</b>	<b>SUBTOTAL</b>		<b>20</b>
<b>SUBTOTAL</b>	<b>30</b>	<b>SUBTOTAL</b>		<b>34</b>
<b>Curriculum Requirements</b>				
<i>Choose 7 credits from the following courses</i>				7
BIO 420 Microbiology	4	BIO 230 Microbiology	4	
CHE 125 Fundamentals of Biochemistry	4	CHEM 244 Introduction to Biochemistry Lecture	3	
		CHEM 245 Introduction to Biochemistry Laboratory	1.5	
SCI 150 Nutrition	3	HSD 240 Nutrition and Health	3	
SCI 151 The Science of Food	3	DFN 120 The Nature and Science of Food	3	
SCI 510 Pathophysiology	3	Elective	3	
SCI 530 Pharmacology	3	Elective	3	
CHE 122 Fundamentals of General, Organic and Biological Chemistry II	4	CHE 120 Essentials of Organic Chemistry Lecture	3	4
		CHE 121 Essentials of Organic Chemistry Laboratory II	1.5	
PHY 110 General Physics	4	PHY 135 Fundamentals and Concepts of Physics	4	4
General Electives <sup>3</sup>	15	General Electives	11	11
<b>SUBTOTAL</b>	<b>30</b>	<b>SUBTOTAL</b>		<b>26</b>
<b>TOTAL</b>	<b>60</b>	<b>TOTAL =</b>		<b>60</b>

<sup>1</sup> Some of these credits can be satisfied by taking STEM variants in the Common Core.  
 Note: This program has received a waiver to specify particular courses students must take in some areas of the Common Core. If students take different courses in these areas, they will be certified as having completed the Common Core areas, but it may not be possible for them to finish their degree program within the regular number of credits.

<sup>2</sup> The Flexible Core requires two courses in Scientific World.

<sup>3</sup> General Electives include four credits earned from courses required in the Common Core.

**D. SENIOR COLLEGE UPPER DIVISION COURSES REMAINING FOR BACCALAUREATE DEGREE**

Course and Title	Credits
<b>General Education Requirements</b>	
Choose two of the following:	
LEH 351 Studies in Science and Applied Perspectives*	3
LEH 352 Studies in Literature*	3
LEH 354 Historical Studies *	3
LEH 355 Studies in Phil, Theory, and Abstract Thinking*	3
<b>Subtotal</b>	<b>6</b>
<b>Program Requirements</b>	
<u>Required Courses</u>	
DFN 220 Foods, Society, and Health	4
DFN 330 Quantity Food Procurement, Production, and Service	3
DFN 341 Nutrition Throughout the Lifecycle	3
DFN 348 Nutrition in Management of Disease I	3
DFN 430 Management of Dietetic Services	3
DFN 437 Nutrition Education, and Counseling	3
HSD 266 The US Healthcare Delivery System	3
HSD 269 Fundamentals of Biostatistics for Health Professionals	3
DFN 445 Advanced Nutrition	4
DFN 448 Nutrition in the Management of Diseases	3
DFN 470 Dietetic Services Field Experience or DFN 471 Field Experience in Clinical Nutrition OR DFN 472 Field Experience in Community Nutrition	2
<b>Subtotal</b>	<b>34</b>
Coursework required for Didactic Program in Dietetics Statement (DPD)	
PSY 166 General Psychology**	3
CIS 106 Computer Applications**	3
<b>Subtotal</b>	<b>6</b>
<b>Electives</b>	
<b>Elective Credits</b>	
<i>Students may utilize these course credits to take additional courses in their major, pursue a minor, or complete courses of interest to them.</i>	<b>14</b>
<b>Total Credits Earned at Lehman College</b>	<b>60</b>
<b>Total Credits Transferrable from BMCC</b>	<b>60</b>
<b>Total Credits Earned toward Baccalaureate</b>	<b>120</b>

\*Borough of Manhattan Community College Students will be required to complete two writing intensive courses. Individual sections of courses will be designated as writing intensive, and students take writing intensive sections of courses in General Education, major, minor, and elective courses.

\*\* Course may be completed as part of the Associate's degree.

## **E. ARTICULATION AGREEMENT FOLLOW-UP PROCEDURES**

### **1. Procedures for reviewing, updating, modifying, or terminating agreement:**

When either of the degree programs involved in this agreement undergoes a change, the agreement will be reviewed and revised accordingly by faculty from each institution's respective departments, selected by their Chairpersons.

### **2. Procedures for evaluating agreement, i.e., tracking the number of students who transfer under the articulation agreement and their success:**

Each semester Lehman College will provide the Borough of Manhattan Community College the following information: a) the number of BMCC students who applied to the program; b) the number of BMCC students who were accepted into the program; c) the number of BMCC students who were enrolled; and d) the aggregate GPA of these enrolled students.

### **3. Sending and receiving college procedures for publicizing agreement, e.g., college catalogs, transfer advisers, Websites, etc.:**

This articulation agreement will be publicizing on the Borough of Manhattan community Colleges website and the Lehman College website. Transfer advisers at BMCC will promote this agreement with eligible students.

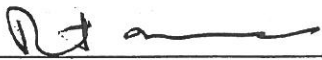
## **F. Additional Information**

### **G. Advisor Recommendations**

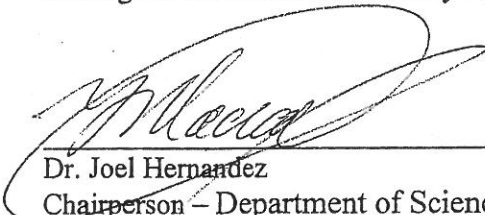
Borough of Manhattan Community College students who plan to transfer into the Dietetics, Food and Nutrition degree program at Lehman College are advised to choose the Program Requirements and Program Electives listed below in order to satisfy the requirements for the A.S. degree in Science for Health Professions at BMCC and to ensure that the maximum number of credits are transferred to satisfy the Dietetics, Food and Nutrition major requirements at Lehman College. Refer to the college website for a list of the general requirements for the A.S. degree

**Effective Date: Fall 2014**

**Borough of Manhattan Community College (CUNY)**

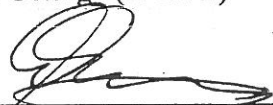
  
\_\_\_\_\_  
Dr. Robert Messina  
Acting Provost and Senior Vice President of  
Academic Affairs  
Borough of Manhattan Community College

4/30/14  
Date

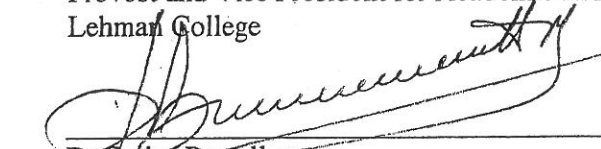
  
\_\_\_\_\_  
Dr. Joel Hernandez  
Chairperson – Department of Science  
Borough of Manhattan Community College

4/29/14  
Date

**Lehman College (CUNY)**

  
\_\_\_\_\_  
Dr. Anny Morrobel-Sosa  
Provost and Vice President for Academic Affairs  
Lehman College

16 Apr 14  
Date

  
\_\_\_\_\_  
Dr. Luisa Borrell  
Chairperson – Health Sciences  
Lehman College

4/15/14  
Date





**LEHMAN  
COLLEGE**

## ARTICULATION AGREEMENT FORM

### A. SENDING AND RECEIVING INSTITUTIONS

Sending College: Borough of Manhattan Community College/CUNY  
Department: Science  
Program: Science for Health Professions  
Degree: Associate in Science (A.S.)

Receiving College: Lehman College/CUNY  
Department: Health Sciences  
Program: Dietetics, Food and Nutrition- Option II Food Service and Nutrition  
Degree: Bachelor of Science (B.S.)

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### B. ADMISSION REQUIREMENTS FOR SENIOR COLLEGE PROGRAM

Associate of Science Degree Graduates of CUNY Colleges are exempt from all Required Core, Flexible Core, and Lower Level College Option Lehman College General Education requirements. To earn a Bachelor's Degree at Lehman College, CUNY Associate degree graduates need to:

- complete at minimum 50% of the courses required for the major/minor in residence;
- two upper-level college option interdisciplinary course;
- two writing intensive courses;
- elective courses, if needed;
- 90 liberal arts credit are required for the BA, 60 liberal arts credits for the BS and the 30 Liberal arts credits for the BFA.

Determination of the 60 Liberal Arts credits required for the baccalaureate degree in accordance with New York State Education Department requirement will be made by Lehman College.

Borough of Manhattan Community College graduates with Associate Degree in Science for Health Professions will receive 60 credits toward the Bachelor of Science, Dietetics, Food, and Nutrition at Lehman College. In addition, they will be deemed to have met all Required Core, Flexible Core, and Lower Level College Option Lehman College General Education requirements at Lehman College.

Total transfer credit granted toward the baccalaureate degree: 60

Total additional credits required at the senior college to complete baccalaureate degree: 60

C. COURSE TO COURSE EQUIVALENCIES AND TRANSFER CREDIT AWARDED

BMCC - Sending College		Lehman - Receiving College Equivalent		Credit Granted
Course & Title	Cr.	Course & Title	Cr.	
<b>Required Common Core</b>				
<i>English Composition</i>				
ENG 101 English Composition I	3	ENG 110 Principles of Effective Writing I	3	3
ENG 201 English Composition II	3	ENG 120 Principles of Effective Writing II	3	3
<i>Mathematics and Quantitative Reasoning<sup>1</sup></i>				
MAT 150 Introduction to Statistics	3	MAT 132 Introduction to Statistics	4	4
<i>Life and Physical Science<sup>1</sup></i>				
CHE 121 Fundamentals of General, Organic and Biological Chemistry I	3	CHE 114 Essentials of General Chemistry Lecture	3	
		CHE 115 Essentials General Chemistry Laboratory	1.5	4
<b>SUBTOTAL</b>	<b>12</b>	<b>SUBTOTAL</b>		<b>14</b>
<b>Flexible Core</b>				
<i>Creative Expression</i>				
World Culture and Global Issues	3	World Culture and Global Issues	3	3
U.S. Experience in its Diversity	3	U.S. Experience in its Diversity	3	3
Individual and Society	3	Individual and Society	3	3
<i>Scientific World<sup>1,2</sup></i>				
BIO 425 Anatomy and Physiology I	3	BIO 181 Anatomy and Physiology I	4	8
BIO 426 Anatomy and Physiology II	3	BIO 182 Anatomy and Physiology II	4	
<b>SUBTOTAL</b>	<b>18</b>	<b>SUBTOTAL</b>		<b>20</b>
<b>SUBTOTAL</b>	<b>30</b>	<b>SUBTOTAL</b>		<b>34</b>
<b>Curriculum Requirements</b>				
<i>Choose 7 credits from the following courses</i>				
BIO 420 Microbiology	4	BIO 230 Microbiology	4	7
CHE 125 Fundamentals of Biochemistry	4	CHEM 244 Introduction to Biochemistry Lecture	3	
		CHEM 245 Introduction to Biochemistry Laboratory	1.5	
SCI 150 Nutrition	3	HSD 240 Nutrition and Health	3	
SCI 151 The Science of Food	3	DFN 120 The Nature and Science of Food	3	
SCI 510 Pathophysiology	3	Elective	3	
SCI 530 Pharmacology	3	Elective	3	
CHE 122 Fundamentals of General, Organic and Biological Chemistry II	4	CHE 120 Essentials of Organic Chemistry Lecture	3	4
		CHE 121 Essentials of Organic Chemistry Laboratory II	1.5	
PHY 110 General Physics	4	PHY 135 Fundamentals and Concepts of Physics	4	4
General Electives <sup>3</sup>	15	General Electives	11	11
<b>SUBTOTAL</b>	<b>30</b>	<b>SUBTOTAL</b>		<b>26</b>
<b>TOTAL =</b>	<b>60</b>	<b>TOTAL =</b>		<b>60</b>

<sup>1</sup> Some of these credits can be satisfied by taking STEM variants in the Common Core.  
 Note: This program has received a waiver to specify particular courses students must take in some areas of the Common Core. If students take different courses in these areas, they will be certified as having completed the Common Core areas, but it may not be possible for them to finish their degree program within the regular number of credits.

<sup>2</sup> The Flexible Core requires two courses in Scientific World.

<sup>3</sup> General Electives include four credits earned from courses required in the Common Core.

**D. SENIOR COLLEGE UPPER DIVISION COURSES REMAINING FOR BACCALAUREATE DEGREE**

**Dietetics, Food and Nutrition – Food Service and Nutrition**

<b>Course Number &amp; Title</b>	<b>Credits</b>
<b>General Education Requirements</b>	
Choose two of the following:	
LEH 351 Studies in Science and Applied Perspectives*	3
LEH 352 Studies in Literature*	3
LEH 354 Historical Studies *	3
LEH 355 Studies in Phil, Theory, and Abstract Thinking*	3
<b>Subtotal</b>	<b>6</b>
<b>Program Requirements</b>	
<b>Required Courses</b>	
DFN 220 Food, Society, and Health	4
DFN 330 Quantity Food Procurement, Production, and Service	3
DFN 341 Nutrition throughout the Life Cycle	3
DFN 348 Nutrition in the Management of Disease I (Beginning Fall 2014 students transferring to the program may choose to substitute this course with another DFN elective.)	3
DFN 430 Management of Dietetic Services	3
DFN 437 Nutrition Education and Counseling	3
BIO 230 Microbiology**	4
DFN 470 Dietetic Services Field Experience	2
CIS 106 Computer Applications**	3
ACC 185 Introduction to Accounting for Non-Accounting Majors	3
<b>Subtotal</b>	<b>31</b>
<b>Elective Credits</b>	
<i>Students may utilize these course credits to take additional courses in their major, pursue a minor, or complete courses of interest to them.</i>	23
<b>Subtotal</b>	<b>23</b>
<b>Total Credits Earned at Lehman College</b>	
	60
<b>Total Credits Transferrable from BMCC</b>	
	60
<b>Total Credits Earned toward Baccalaureate</b>	
	120
<p>*Borough of Manhattan Community College Students will be required to complete two writing intensive courses. Individual sections of courses will be designated as writing intensive, and students take writing intensive sections of courses in General Education, major, minor, and elective courses.</p> <p>**Course may be completed as part of the Associate's degree.</p>	

## **E. ARTICULATION AGREEMENT FOLLOW-UP PROCEDURES**

### **1. Procedures for reviewing, updating, modifying, or terminating agreement:**

When either of the degree programs involved in this agreement undergoes a change, the agreement will be reviewed and revised accordingly by faculty from each institution's respective departments, selected by their Chairpersons.

### **2. Procedures for evaluating agreement, i.e., tracking the number of students who transfer under the articulation agreement and their success:**

Each semester Lehman College will provide the Borough of Manhattan Community College the following information: a) the number of BMCC students who applied to the program; b) the number of BMCC students who were accepted into the program; c) the number of BMCC students who were enrolled; and d) the aggregate GPA of these enrolled students.

### **3. Sending and receiving college procedures for publicizing agreement, e.g., college catalogs, transfer advisers, Websites, etc.:**

This articulation agreement will be publicizing on the Borough of Manhattan community Colleges website and the Lehman College website. Transfer advisers at BMCC will promote this agreement with eligible students.


## **F. Additional Information**

### **G. Advisor Recommendations**

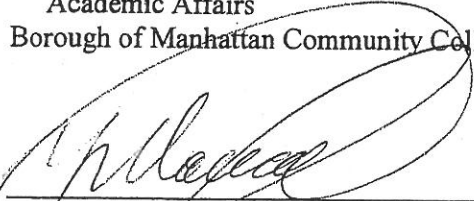
Borough of Manhattan Community College students who plan to transfer into the Dietetics, Food and Nutrition degree program at Lehman College are advised to choose the Program Requirements and Program Electives listed below in order to satisfy the requirements for the A.S. degree in Science for Health Professions at BMCC and to ensure that the maximum number of credits are transferred to satisfy the Dietetics, Food and Nutrition major requirements at Lehman College. Refer to the college website for a list of the general requirements for the A.S. degree

Effective Date: Fall 2014

**Borough of Manhattan Community College (CUNY)**


  
\_\_\_\_\_  
Dr. Robert Messina  
Acting Provost and Senior Vice President of  
Academic Affairs  
Borough of Manhattan Community College

4/30/14  
Date

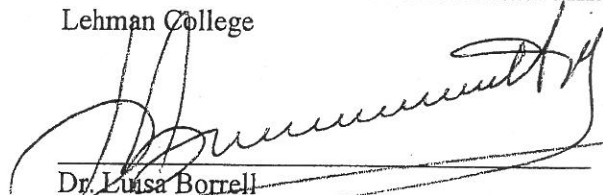
  
\_\_\_\_\_  
Dr. Joel Hernandez  
Chairperson – Department of Science  
Borough of Manhattan Community College

4/29/14  
Date

**Lehman College (CUNY)**

  
\_\_\_\_\_  
Dr. Anny Morrobel-Sosa  
Provost and Vice President for Academic Affairs  
Lehman College

10 Apr 14  
Date

  
\_\_\_\_\_  
Dr. Luisa Borrell  
Chairperson – Health Sciences  
Lehman College

4/15/14  
Date

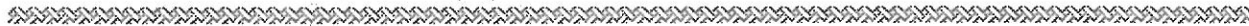


## ARTICULATION AGREEMENT FORM

### A. SENDING AND RECEIVING INSTITUTIONS

Sending College: Borough of Manhattan Community College/CUNY  
Department: Science  
Program: Science for Health Professions  
Degree: Associate in Science (A.S.)

Receiving College: Lehman College/CUNY  
Department: Health Sciences  
Program: Exercise Science (Option 1) Exercise and Movement Science  
Degree: Bachelor of Science (B.S.)



### B. ADMISSION REQUIREMENTS FOR SENIOR COLLEGE PROGRAM

Associate of Science Degree Graduates of CUNY Colleges are exempt from all Required Core, Flexible Core, and Lower Level College Option Lehman College General Education requirements. To earn a Bachelor's Degree at Lehman College, CUNY Associate degree graduates need to:

- complete at minimum 50% of the courses required for the major/minor in residence;
- two upper-level college option interdisciplinary course;
- two writing intensive courses;
- elective courses, if needed;
- 90 liberal arts credit are required for the BA, 60 liberal arts credits for the BS and the 30 Liberal arts credits for the BFA.

Determination of the 60 Liberal Arts credits required for the baccalaureate degree in accordance with New York State Education Department requirement will be made by Lehman College.

Borough of Manhattan Community College graduates with Associate Degree in Science for Health Professions will receive 60 credits toward the Bachelor of Science, Dietetics, Food, and Nutrition at Lehman College. In addition, they will be deemed to have met all Required Core, Flexible Core, and Lower Level College Option Lehman College General Education requirements at Lehman College.

Total transfer credit granted toward the baccalaureate degree: 60

Total additional credits required at the senior college to complete baccalaureate degree: 60



**C. COURSE TO COURSE EQUIVALENCIES AND TRANSFER CREDIT AWARDED**

BMCC - Sending College		Lehman - Receiving College Equivalent		Credit Granted
Course & Title	Cr.	Course & Title	Cr.	
<b>Required Common Core</b>				
<i>English Composition</i>	6	<i>English Composition</i>	3	3
ENG 101 English Composition I	3	ENG 110 Principles of Effective Writing I	3	3
ENG 201 English Composition II	3	ENG 120 Principles of Effective Writing II		
<i>Mathematics and Quantitative Reasoning<sup>1</sup></i>		<i>Mathematics and Quantitative Reasoning</i>	4	4
MAT 150 Introduction to Statistics	3	MAT 132 Introduction to Statistics		
<i>Life and Physical Science<sup>1</sup></i>		<i>Life and Physical Science</i>	3	4
CHE 121 Fundamentals of General, Organic and Biological Chemistry I	3	CHE 114 Essentials of General Chemistry Lecture		
		CHE 115 Essentials General Chemistry Laboratory	1.5	
<b>SUBTOTAL</b>	<b>12</b>	<b>SUBTOTAL</b>	<b>14</b>	
<b>Flexible Core</b>				
<i>Creative Expression</i>	3	<i>Creative Expression</i>	3	3
<i>World Culture and Global Issues</i>	3	<i>World Culture and Global Issues</i>	3	3
<i>U.S. Experience in its Diversity</i>	3	<i>U.S. Experience in its Diversity</i>	3	3
<i>Individual and Society</i>	3	<i>Individual and Society</i>	3	3
<i>Scientific World<sup>2</sup></i>		<i>Scientific World</i>		
BIO 425 Anatomy and Physiology I	3	BIO 181 Anatomy and Physiology I	4	8
BIO 425 Anatomy and Physiology II	3	BIO 182 Anatomy and Physiology II	4	
<b>SUBTOTAL</b>	<b>18</b>	<b>SUBTOTAL</b>	<b>20</b>	
<b>SUBTOTAL</b>	<b>30</b>	<b>SUBTOTAL</b>	<b>34</b>	
<b>Curriculum Requirements</b>				
Choose 7 credits from the following courses				7
BIO 420 Microbiology	4	BIO 230 Microbiology	4	
CHE 125 Fundamentals of Biochemistry	4	CHEM 244 Introduction to Biochemistry Lecture	3	
		CHEM 245 Introduction to Biochemistry Laboratory	1.5	
SCI 150 Nutrition		HSD 240 Nutrition and Health	3	
SCI 151 Food Science	3	DFN 120 The Nature and Science of Food	3	
SCI 510 Pathophysiology	3	Elective	3	
SCI 530 Pharmacology	3	Elective	3	
CHE 122 Fundamentals of General, Organic and Biological Chemistry II	4	CHE 120 Essentials of Organic Chemistry Lecture	3	4
		CHE 121 Essentials of Organic Chemistry Laboratory II	1.5	
PHY 110 General Physics	4	PHY 135 Fundamentals and Concepts of Physics	4	4
General Electives <sup>3</sup>	15	General Electives	11	11
<b>SUBTOTAL</b>	<b>30</b>	<b>SUBTOTAL</b>	<b>26</b>	
<b>TOTAL =</b>	<b>60</b>	<b>TOTAL =</b>	<b>30</b>	

<sup>1</sup>Some of these credits can be satisfied by taking STEM variants in the Common Core.  
 Note: This program has received a waiver to specify particular courses students must take in some areas of the Common Core. If students take different courses in these areas, they will be certified as having completed the Common Core areas, but it may not be possible for them to finish their degree program within the regular number of credits.  
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**D. SENIOR COLLEGE UPPER DIVISION COURSES REMAINING FOR BACCALAUREATE DEGREE**

<b>Course and Title</b>	<b>Credits</b>
<b><u>General Education Requirements</u></b>	
Choose two of the following:	
LEH 351 Studies in Science and Applied Perspectives*	3
LEH 352 Studies in Literature*	3
LEH 354 Historical Studies *	3
LEH 355 Studies in Phil, Theory, and Abstract Thinking*	3
<b>Subtotal</b>	<b>6</b>
<b><u>Program Requirements</u></b>	
<b><u>Required Courses</u></b>	
EXS 264 Introduction to Exercise Science	3
EXS 265 Behavioral Aspects of Exercise and Physical Activity	3
EXS 315 Kinesiology/Biomechanics	3
EXS 316 Motor Learning and Performance	3
EXS 323 Exercise Physiology I	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
HSD 269 Fundamentals of Biostatistics for Health Professionals	3
<b>Subtotal</b>	<b>39</b>
<b>Elective Credits</b>	
<i>Students may utilize these course credits to take additional courses in their major, pursue a minor, or complete courses of interest to them.</i>	15
<b>Subtotal</b>	<b>60</b>
<b>Total Credits Earned at Lehman College</b>	
	60
<b>Total Credits Transferrable from BMCC</b>	
	60
<b>Total Credits Earned toward Baccalaureate</b>	
	120
*Borough of Manhattan Community College Students will be required to complete two writing intensive courses. Individual sections of courses will be designated as writing intensive, and students take writing intensive sections of courses in General Education, major, minor, and elective courses.	

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### **3. Sending and receiving college procedures for publicizing agreement, e.g., college catalogs, transfer advisers, Websites, etc.:**

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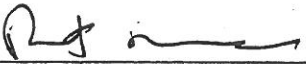
Transfer advisers at BMCC will promote this agreement with eligible students.

## **F. Additional Information (e.g., financial aid, transfer scholarship**

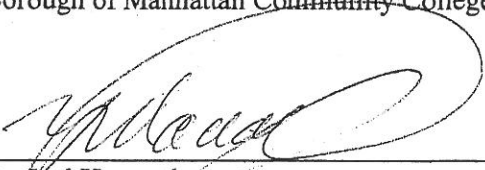
## **G. Advisor Recommendations**

**Effective Date:** Fall 2014

**Borough of Manhattan Community College (CUNY)**

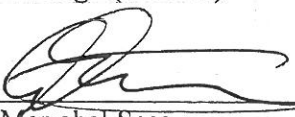
  
\_\_\_\_\_  
Dr. Robert Messina  
Acting Provost and Senior Vice President of  
Academic Affairs  
Borough of Manhattan Community College

4/30/14  
\_\_\_\_\_  
Date

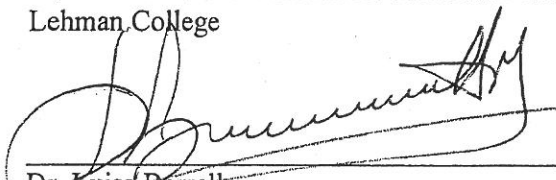
  
\_\_\_\_\_  
Dr. Joel Hernandez  
Chairperson - Department of Science  
Borough of Manhattan Community College

4/29/14  
\_\_\_\_\_  
Date

**Lehman College (CUNY)**

  
\_\_\_\_\_  
Dr. Anny Morrobel-Sosa  
Provost and Vice President for Academic Affairs  
Lehman College

16 Apr 14  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Dr. Luisa Borrell  
Chairperson - Health Sciences  
Lehman College

4/15/14  
\_\_\_\_\_  
Date

APPENDIX I  
EMPLOYMENT

## **AQUATICS DIRECTOR (MCBURNEY YMCA)**

**Location:** New York, NY

### **Job Description:**

The YMCA of Greater New York reaches half a million New Yorkers through programs that focus on youth development, healthy living and social responsibility. We are seeking an experienced professional to provide leadership to our Aquatics Department at our McBurney branch in Manhattan. Major responsibilities include safe pool operations, program development, staff schedules, time card approvals, budget management and ensuring the cleanliness of the pool area. In addition, the Director will contribute to the success of the YMCA's "Total Health Initiative" and member retention by ensuring quality member service and satisfaction. Details of this exciting employment opportunity are noted below.

### **Responsibilities:**

- Recruit, train, supervise, and evaluate all aquatic staff.
- Plan, schedule, supervise and evaluate the recreational and instructional aquatics program for youth and adults.
- Develop, track, and control the department budget in accordance with Branch and Association Guidelines.
- Address scheduling, maintenance, and repair of Aquatics Department facilities/equipment in partnership with the Buildings Department.
- Review staff and member evaluations/feedback regularly.
- Adhere to Association Aquatic Safety Standards and Guidelines.
- Actively participate in annual Strong Kids fundraising campaign and special events.
- Perform related duties as assigned.
- Serve on Branch Strategic Planning and Operations Management Leadership Team.
- Serve as Branch liaison to the Association's Aquatics Cabinet.
- Attend trainings & conferences in the Aquatic field.
- **Qualifications:**
- BA/BS in Physical Education, Exercise Science or related area is desired.
- Minimum of two years of experience supervising lifeguards and managing a pool facility.
- YMCA or Red Cross Lifeguard certification and WSI (Water Safety Instructor) certification.

- YMCA Swim Lesson or other certification.
- Current CPR/AED, Oxygen Administration and First Aid certifications.
- Knowledge of safe practices and procedures as they pertain to pool operations, supervisory concepts and techniques; customer service practices and principles.
- Proficient in MS Word; AS400 database is a plus.
- Excellent communications skills.

**Salary:** \$40,163 - \$50,203

**HOW TO APPLY**

We offer an exciting and innovative work environment with a culture committed to serving all members of the community. If you would like to join our leadership team, please send your resume and cover letter with subject line "Aquatics Director" to [jpeltier@ymcanyc.org](mailto:jpeltier@ymcanyc.org) or to: McBurney YMCA Attn.: Jolaina Peltier 125 West 14th Street New York, NY 10011 New York City's YMCA | WE'RE HERE FOR GOOD EQUAL OPPORTUNITY EMPLOYER - DRUGFREE WORKPLACE

**Apply By Email:** [jpeltier@ymcanyc.org](mailto:jpeltier@ymcanyc.org)

**Resumes until:** 6/30/2014

**Contact:** John M Rappaport

## **Nutritionist-23772**

### **Description**

#### **Position Summary**

The Nutritionist provides quality nutrition care and education to patients and family members. This position assesses the nutritional status of patients and recommends the appropriate nutrition therapy as it pertains to the patients' nutritional needs. Works with faculty and other team members regarding weight management, diabetes, and other nutrition-related concerns. Develops educational materials and participates in divisional educational activities related to nutrition, diabetes and weight management.

#### **Position Activities**

- Evaluates patients' nutritional status by reviewing pertinent information obtained from the patient, medical records, and the interdisciplinary health care team.
- Provides nutrition counseling to patients and family members as indicated.
- Applies knowledge of nutrition screening and assessment to specific patient populations to determine their nutritional needs.
- Uses professional judgment to adapt and apply guidelines, protocols and professional standards of care to the new and changing needs of the patient. Evaluates nutrition care plans for effectiveness and recommends changes as needed.
- Develops educational material on nutrition, diabetes, weight management, and other nutrition-related concerns. Actively participates in overall education and training activities, and disseminates information regarding current nutrition practices.
- Performs other related duties as assigned.

### **Qualifications**

#### **Minimum Requirements**

- Bachelor's Degree in Nutrition or Health Education.
- Certified Dietitian Nutritionist (CDN) from NYS Office of the Professions
- Registered Dietitian (RD) with the Commission of the Academy of Nutrition and Dietetics
- Specialty Credential - Certified Diabetes Educator (CDE)
- 5 plus years of related work experience.

#### **Highly Desired Requirements**

- Experience with pediatric and adolescent populations.
- Experience with various disorders, i.e. obesity and overweight, diabetes, CAH, polycystic ovarian syndrome, failure to thrive, lipid abnormalities.
- Master's Degree in Nutrition or Health Education.

#### **Skill and Abilities**

- Good interpersonal skills in order to develop working relationships with care center staff and other personnel.
- Ability to conduct workshops on nutrition-related topics.

Visa sponsorship is not available for this position.

*Founded in 1898, and affiliated with what is now New York-Presbyterian Hospital since 1927, Weill Cornell Medical College is among the top-ranked clinical and medical research centers in the country. In addition to offering degrees in medicine, Cornell also has Ph.D. programs in biomedical research and education at the Weill Graduate School of Medical Sciences, and with neighboring Rockefeller University and the Sloan-Kettering Institute, has established a joint MD-PhD. program for students to intensify their pursuit of Cornell's triple mission of education, research, and patient care.*

*Weill Cornell Medical College's educational mission emphasizes the importance of combining a strong foundation in the medical sciences with extensive clinical training in patient care. By promoting a true social commitment, stimulating creativity, and fostering independent thought and study, Weill Cornell Medical College continues to cultivate the best of tomorrow's leaders in the field of medicine.*

Weill Cornell Medical College is an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.

**Job WCMC-Health**

**Primary Location** New York City

**Organization** Endocrinology

**Schedule** Full-time

**Overtime Status**-Exempt

**Minimum Salary**-\$55,688

**Personal Trainer (New York City: Upper West Side Manhattan - 83rd Street)**

US-NY-New York

Experience (Years)

Club - Personal Training

**PERKS OF BEING A PERSONAL TRAINER AT CRUNCH:**

- Earning Potential of 100K+
- Top compensation plan of any commercial gym
- Great facilities with functional training areas, top-of-the-line strength & cardio equipment featuring the latest trends and technology in our industry
- Continuing education opportunities with in-house certifications and workshops offered monthly
- Tuition reimbursement program
- Complimentary dotFIT Nutrition Certification
- Complimentary CPR/AED Re-certifications
- Insurance Coverage and Full-Time Benefits (Health/Dental/Vision)
- Complimentary membership and discounts in club
- Semi-Annual Team Trips & Activities

Responsibilities:

**EXAMPLES OF ESSENTIAL RESPONSIBILITIES:**

- Ability to build clientele by administrating fitness assessments and safely conducting personal training sessions
- Ensures accurate administration of client programs, including dotFIT programs, supplement purchases, measurement tracking and workout programs
- Assists in all revenue generating activities, including but not limited to: complimentary workouts, supplement booths, body fat tables, seminars, and workshops
- Ability to sell the value and importance of personal training sessions to our members
- Responsible for achieving personal monthly revenue objectives set forth by the company
- Organization skills and ability to maintain a neat presentation of the fitness floors at all times
- Ability to adjust and operate all fitness equipment
- Possess an enthusiastic, passionate, friendly and ambitious personality

Qualifications:

**PREFERRED EDUCATION/CERTIFICATIONS:**

- Current CPR
- Current dotFIT certification (or must be willing to obtain)
- High school diploma or general education degree (GED)
- A degree in a related field is preferred (Exercise Science, Kinesiology, Sports Medicine, Physical Education, Nutrition, Fitness Specialist, etc.)

**EXPERIENCE:**

- Personal Training experience preferred but not required

**PHYSICAL REQUIREMENTS:**

- Physical effort required for daily duties include lifting heavy weights, squatting, bending, reaching, spotting & prolonged standing and walking. Must be able to frequently lift and/or move up to 45+ pound



# **Dietitian Assistant**

**Company:** Jamaica Hospital Medical Center

**Location:** Jamaica, NY

**Date Posted:** January 2, 2015

**Source:** NY City Works

Food and

Nutrition Requirements:

College degree in nutrition. Must be computer literacy. Diet office experience preferred.

Job Description:

Transcribing diets from electronic medical records into the GeriMenu system, processing diet changes and generating meal/tray tickets and answering phones.

Hours:

Every Weekend, hours 11:00am to 7:30pm and/or 6:00am to 2:30pm.

## Dietitian

Livingston Hills Nursing & Rehabilitation Center - Hudson, NY

### DIETITIAN

Livingston Hills Nursing & Rehabilitation Center a progressive facility located in Livingston, NY seeking a Registered Dietitian Consultant. Bachelor's Degree in nutrition and experience in a skilled nursing facility required. Master's Degree preferred. Responsibilities include: providing clinical nutrition services to residents, completing nutritional assessments, formulating and implementing nutritional care plans, completing MDS, educating residents and families regarding therapeutic diets.

Excellent Compensation!

Requirements Include:

- Prior LTC Experience is a must

Location:

- LIVINGSTON, NY 12541

We offer the Following:

- Excellent Compensation
- Great Benefits Package
- Professional Growth & Stability
- Innovative Training Programs
- And much more!

About Us:

Livingston Hills Nursing & Rehabilitation Center is a 120-bed rehabilitation and skilled nursing facility overlooking the hills of the Hudson Valley. Our size enables a warm, nurturing environment, which allows each resident to maintain his or her individuality. Our staff is committed to ensuring the highest quality of life of all our residents, by maintaining each resident's dignity and independence.

We invite you to learn more about our unique culture and the exciting opportunities that exist within our organization. <http://livingstonhills.com/>  
Please email resumes to

**Location:** Bronx, New York  
**Date Posted:** 1/15/2015  
**Full Time/Part Time:** Per Diem  
**Permanent/Temporary:** Regular  
**Employment/Contract Work:** Employment  
**Visa Waiver Available:** N/A

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Job Description Recognized as the #1 Best Company To Work for In New York, YAI Network is an award-winning, nationally acclaimed network of not-for-profit health and human services agencies dedicated to building brighter futures for people with intellectual and developmental disabilities of all ages and their families. We serve individuals, families, and communities in the NYC metropolitan area, Nassau, Suffolk, Westchester, Rockland, Orange, and Sullivan Counties within New York State. The most recent additions to our network include services to New Jersey and Puerto Rico. Our full range of services include early intervention, pre-school, family supports, day treatment and day habilitation programs, employment training and placement, clinical and residential services, as well as recreation and camping services.

**RECENT AWARDS:**

Proud recipients of the following awards:

- New York State Society for Human Resource Management (NYS SHRM)  
#1 Best Company to Work For in New York Award

- American Psychological Association's National Psychologically Healthy Workplace Award  
YAI/Center for Specialty Therapy, a member of the YAI Network, currently has **Fee-for-**

**Service Registered Dietitian Nutritionist** opportunities on the evenings and/or weekends in the Bronx. Provide clinical nutrition services to adults with developmental disabilities in residential group homes.

**Responsibilities:**

- \* Work one on one with individuals with developmental disabilities to develop treatment plans/goals
- \* Provide nutrition education to individuals with developmental disabilities & staff members
- \* Assist with menu planning
- \* Monitor consumer's progress and revise nutritional plans when necessary

**Requirements:**

- \* RDN/CDN and Bachelors Degree in Nutrition required, Masters preferred
- \* Clinical experience required

**Hours:**

- \* Primarily Fee-for-Service evenings (4pm-8pm) during the week with the possibility of providing service on weekends. Applicant will need to be available evenings during the week for trainings & supervision (this position cannot be only on weekends).

Contact Information

Please apply online below. For more information about the YAI Network, please visit [www.yai.org](http://www.yai.org). EOE.

**Company:** Plus One Health Management

**Location:** New York City, NY

**Date Posted:** January 9, 2015

**Source:** Plus One Health Management, Inc

We are currently seeking an ambitious, Full Time Exercise Specialist that is passionate about providing healthy lifestyle programs to work at an upscale corporate fitness center located in New York, NY.

The shift hours for this position are Monday to Friday 11am and 7pm.

A Plus One Exercise Specialist consistently provides each client, guest, and/or participant with the highest level of customer service in a positive, professional environment to motivate others safely and effectively.

**POSITION RESPONSIBILITIES:**

1. Implement and follow all Physical Activity Department related Plus One and Client policies and procedures as outlined in the Team Member Manual.
2. Greet members and guests as they enter the Fitness Center using a personalized approach and demonstration of P.R.I.D.E and the 5/10 Rule to determine nature and purpose of visit, and direct or escort them to specific destinations.
3. Respond to member/guest suggestions, concerns, and complaints in a timely, professional, and consistent manner while providing the gold standard in customer service. Take ownership of challenges by finding the appropriate team member who can directly assist, if unable to provide efficient support to member/guest.
4. Activate emergency action plans and administer first aid, as necessary.
5. Complete all assigned on-boarding, education coursework, and training via Plus One University and IDEA Club Connect within the first eight-(8) weeks of date of hire.
6. Proactively engage members on the fitness floor, enhance enrollment, utilization, retention, revenue, and the total customer service experience by taking ownership of challenges and opportunities, and striving for the gold standard.
7. Provide proactive supervision of all members or guests exercising in the fitness center by demonstrating proper operation of fitness equipment, such as resistance machines, cardio machines, and free weights.
8. Provide ongoing observation and interpersonal feedback of corrective measures including exercise technique, full range of motion, and proper breathing techniques to amplify benefits of exercise routines.
9. Have a passion for client results by offering alternative movements to accommodate different levels of fitness.
10. Explain and enforce safety rules and regulations, such as the "I'm OK" policy, of activities and equipment.
11. Perform fitness evaluations of client's abilities, needs, and physical conditions, to develop and implement progressive, individualized exercise programs to meet any special requirements.
12. Perform regular visual inspection checks to ensure cleanliness and tidiness of the facility including but limited to main lobby, fitness center, locker rooms, group class rooms, gymnasium and storage areas.

**ESSENTIAL KNOWLEDGE AND EXPERIENCE:**

Bachelor's Degree in Exercise Science, Kinesiology, or a related field and/or a current NCCA accredited Personal Training Certification. Must have current CPR/AED and First Aid certification. Must possess current knowledge and industry standards of excellence in exercise testing (assessments) and exercise prescription (program design). Must possess the knowledge and ability to operate various fitness tools and equipment such as resistance tubes/bands, strength machines, cardio machines, Kettlebells, fitness weights, exercise balls, etc. Possess a basic understanding of the principles of exercise, cardiovascular, strength and flexibility programming. Must be knowledgeable about the industry with the customer skills to network, engage, and interact with all clients, guests, and participants in accordance with P.R.I.D.E. Must communicate professionally using appropriate vocabulary and grammar to obtain and relay information to and from clients/guests. Competent with Microsoft Suite (Word, Excel, Power Point, Outlook).

**PREFERRED BUT NOT REQUIRED KNOWLEDGE AND EXPERIENCE:**

Prior experience in corporate fitness setting. Current nationally recognized group fitness instructor certification (NCCA preferred). A minimum of six month of group fitness experience. Ability to effectively engage participants as a public speaker.

14. Prof Kosky: The curriculum committee has met and approved the A.S. Health Science curriculum. He passes copies of the curriculum and syllabus.
15. Prof. Hernandez: This course has the potential to attract many students.
16. Prof. Ford: Who is this curriculum designed to articulate with?
17. Prof. Kosky: It will articulate with programs in the Health Sciences Department at Lehman College.
18. A.S. Health Science curriculum approved with 3 against and 2 abstentions.
19. Prof. Mata: two new BIO courses will be inaugurated next fall: Plant Biology and BIO 270. Please consider this when advising the students.
20. Prof Jayant: has noticed that Cell Biology is no longer advised in Degree Works.
21. Prof. Kosky: The course remains, it needs to stay.
22. Prof. Hernandez: It will show as fallthrough.
23. Prof. Ford: Full time students can take up to 12 credits outside of their program that will count for graduation and will not affect their financial aid.
24. Prof. Ford: The welfare fund is running a small surplus. We have a choice of getting improved coverage for dental, vision or prescriptions.
25. Improved dental coverage chosen by vote.
26. Prof. Ford: The bad business practices of Express Scripts have come to the Union's attention. To report such practices please email [lmorgan@pscmail.org](mailto:lmorgan@pscmail.org) with subject line "Express Scripts". Never give Express Scripts your credit card number.
27. Prof. Ford: If anybody is in need of PICA drugs, the city-wide program covering this is likely to go away. People must investigate other prescription drug plans. Will give an update after next week's PSC meeting.
28. Prof. Geddis: Send the information about the science assessment to your discipline coordinators by tomorrow.

**Meeting adjourned at 2:53pm**

## SCIENCE DEPARTMENT MEETING MINUTES

3/11/2015

**In attendance:** Alva, Betancourt, Boydston-White, Chen, Danila, Delgado, Deora, Dewprashad, Ecevit, Ford, Geddis, Gosslau, Gurcan, Hernandez, Hoffmann, Iyengar, Jayant, Johnston-Tezapsidis, Karaalioglu, Koroch, Kosky, Krauss, Kurt, Lee, Lhung, Liang, Mata, Mazur, McKernan, Meyers, Minor, Navarro, Niyazov, Pavel, Ponnala, Priano, Rafferty, Raynor, Robbins, Schnebel, Tesfagiorgis, Torres-Rangel, Tribiano, Tsiklauri, Wickstrom, Yanagisawa, Yu, Yumak, Zaitsev.

**Absent:** Adem, Ardebili, Benavides, Creaco, DeLeon, DeRosa, Gambino, Goodwyn, Levine, Nguyen, Penner, Rivera, Rywkin, Salami, Salm, Slavin, Spevack, Thompson, Van Loon, Waldman, Zhang.

### Meeting called to order at 2:09pm

1. Minutes approved unanimously.
2. Prof. Hernandez: There is a proposal to email meeting minutes to all department members a few days in advance of the next meeting. Also, let Lydia know if you are not getting email messages.
3. Prof. Hernandez: We have three options for advisement: (1) the advisement center would advise students with less than 30 credits (2) we advise students with less than 30 credits, or (3) the department does all the advisement.
4. Prof. Mata: If we choose option 1, can we pass a list of recommendations for science students to the advisement center?
5. Prof. Hernandez: Yes, it makes sense.
6. Prof. Ford: There is a need for training our own department members, for example many of us have a hard time picking the right elective courses for engineering science students.
7. Prof. Hernandez: We will provide a list of electives for the different engineering specialties.
8. Advisement option 1 approved.
9. Prof. Mazur: Who hires the adjuncts?
10. Prof. Hernandez: Prof. Hoffmann for Physics and Astronomy, Prof. Alva for Chemistry and Prof. DeLeon for Biology.
11. Prof. Danila: Can anybody provide an updated list of email addresses for the adjuncts?
12. Prof. Hoffmann has the email lists for physics and astronomy adjuncts.
13. Barys Korzun is introduced as a new Physics CLT.

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