### QUEENSBOROUGH COMMUNITY COLLEGE CITY UNIVERSITY OF NEW YORK CURRICULUM COMMITTEE

**To:** Philip Pecorino, Academic Senate Steering Committee **From:** Aránzazu Borrachero, Chairperson, Committee on Curriculum **Date:** October 22, 2013

### Subject: Monthly Report

The Committee on Curriculum has sent the following recommendations to the Academic Senate:

## 1. New Courses

2. Changes in Courses

#### 1. New Courses

### **DEPARTMENT of CHEMISTRY**

### **CH-115 Introduction to Nanoscience**

3 credits; 3 hours

# Prerequisite: None

**Catalogue Description:** This course will give students an introduction to nanoscience, which is a rapidly growing field in our society. The synthesis of nanomaterials, the tools used to characterize these materials (Electron Microscopy (SEM/TEM), Atomic Force Microscopy (AFM), Scanning Tunneling Microscopy (STM) and UV-Vis spectroscopy), and societal impacts of nanomaterials/technology (such as ethical, legal and environmental implications) will be covered. Students will select a nanomaterial of interest and also do a term paper and presentation.

### Rationale:

Nanoscience is an emerging and exciting field. This course will provide students with the basic background knowledge to be able to function in an ever-increasing nano-scale world. There is an increased interest in educating undergraduates about this growing discipline (NSF funding \$200,000 for QCC, KBCC, BMCC and LGCC in 2012-2014). Students will be introduced to the latest developments that are occurring in academia as well as in industry. Students will have the unique opportunity to obtain hands-on experience in using an Atomic Force Microscope and a Scanning Tunneling Microscope, not common at most Community Colleges. An industry speaker will also visit to present latest developments. Students who complete this course will have an advantage to continue their studies in the nanoscience field, if they desire, by registering for research in the Chemistry Department. Several faculty members in the Chemistry Department at QCC currently mentor students in gaining laboratory experience in the nanoscience field. This course can provide a much needed theoretical background for these students. City College/CUNY has agreed to accept this as a technical elective equivalent to its Nanomaterial course (ChE49808) in the Chemical Engineering Department. This course is currently being offered at City College and similar courses are also currently being implemented at the other CUNY community colleges. It is expected that students who take this course will have improved writing and presentation skills and will be able to perform effective literature studies, as noted already for students at Bronx and Hostos CC.

In Spring 2013, Dr. Hemraj-Benny gave a general introduction of the topic to her Chemistry and Arts class (41 students). The student body consisted of 51% art related majors and 29% Liberal Arts and Science majors. A discussion of how the Lycurgus cup and stained glass windows possess their unique characteristics due to nanoparticles was discussed. Students were tested on the final exam of their understanding of the material, of which 80% fully grasped the concepts. In a survey given, 50% of the student body showed interest in taking this nanoscience course if it is offered at QCC. There is a need to teach nanotechnology at the community college level and QCC would be amongst the first.

## **DEPARTMENT of FOREIGN LANGUAGES and LITERATURES**

### LS-224 Internship in Teaching Spanish as a Foreign Language

### 1 credit; 8 in-class sessions; 21 hours of tutoring service

Prerequisites: LS 221, 222, 223, 312 or 315 with a grade of B+ or higher, or permission of the department.

**Catalogue Description:** This course is a Service Learning class designed for advanced students of Spanish. It focuses on basic principles of language acquisition and instruction. Students will learn about the theory and practice of foreign language teaching, they will conduct class observations of Spanish classes at Queensborough Community College, and they will apply theory to practice by tutoring students of Spanish at the Student Learning Center. This course is taught in Spanish. **Rationale:** 

# In the past, the Service Learning activities of this course were an option for students enrolled in LS 223. Those students in LS 223 who chose the Service Learning experience tutored illiterate Spanish immigrants at "Make the Road New York," an immigrant

community center in Queens. This service component was very successful: an average of 5 students per semester selected it (in a class of 20 students) and they rated the experience very highly in their class evaluations. However, the community partner's location in Junction Boulevard required a long commute for both the students and the instructor who supervised their tutoring. Additionally, the literacy classes' schedule changed to the early morning, a time when the literacy tutors (QCC students) had to be in charge of opening the office, turning alarms off, etc., which presented liability problems.

This course proposal builds on the positive educational experiences of the LS 223 service component by providing tutoring at QCC, thus avoiding the commute and benefiting our own QCC language students. Separating the Service Learning experience from LS 223 and offering it as a one-credit course will help to recruit interested students and to offer them a more focused experience. This course also hopes to motivate students to pursue a career in the teaching of Spanish.

## DEPARTMENT of BIOLOGICAL SCIENCES and GEOLOGY

# BI 132 Foundations of Biology: Laboratory experience

3 laboratory hours per week; 1 credit

Pre-requisites: BE-112 (or 205) & 122 (or 226) or satisfactory score on the CUNY/ACT assessment test.

# Co-requisite: BI-131

**Catalogue Description:** An introductory laboratory course that provides an opportunity to students to get hands on experience in biology. It centers around performing laboratory experiments that explains biological concepts like cellular basics, properties and diversity of life, microscopic world of cells, ecological interactions, photosynthesis, respiration, evolution of life, patterns of inheritance and human genetics. Fetal pig dissections are also part of the course and required.

**Rationale:** This single-credit laboratory course complements the three-credit science course BI-131, included in Common Core IC, Life and Physical Sciences. Students take the laboratory course as part of their major requirements for the degree program. In this way, Queensborough maintains the integrity of the laboratory science requirement when students are not in degree programs with STEM science requirements.

# 2. Changes in Courses

# DEPARTMENT of FOREIGN LANGUAGES AND LITERATURES

From: LC-214 Intermediate Chinese II 3 class hours 3 credits	To: LC 214 Intermediate Chinese I I 3 class hours, 3 credits
[The focus of this course is to continue the improvement of oral communication skills, along with reading, writing, and grammar. It is designed to help students expand their vocabulary, and to study more complex grammatical structures. Components of Chinese culture will be integrated through readings, discussions and realia.]	This fourth-semester course focuses on improving students' oral communication skills, along with reading, writing and grammar. Students will expand their vocabulary and study more complex grammatical structures. Aspects of Chinese-speaking cultures will be integrated through readings, films, discussions and Internet-related activities.
<b>From:</b> Prerequisites: [LC-213 or permission of the department.]	<b>To:</b> Prerequisites: LC 213 with a grade of C or higher, or placement by the Department of Foreign Languages

## Rationale:

This course has existed for some time, but there was not enough student demand to offer it. Currently, there is a group of students taking LC 213 who have approached their instructor to ask for the continuation of the course they are taking right now. The Chinese program hopes to nurture these students' interest in continuing advanced-intermediate studies in Chinese by offering LC-214.

In this course, students will continue expanding their vocabulary and will study progressively complex grammatical structures. The course approaches cultural content through short readings, video clips, interviews and other resources that illustrate issues of diversity within Chinese social groups, and prompt students to investigate them from multiple perspectives. Students will demonstrate an understanding of these diverse views through a variety of oral and written assignments, such as journal entries, blogs, group projects, and oral presentations.

The revision of this course's description reflects more accurately the learning objectives that align with the CUNY Pathways learning outcomes under II.A. World Cultures and Global Issues. The prerequisite has been rewritten for more accuracy and clarity.

### DEPARTMENT of HEALTH, PHYSICAL EDUCATION and DANCE

From: PE-545 [Sportwalking ] 1 credit, 2 hours To: PE-545 <u>Fitness Walking 1</u> credit, 2 hours

This course is designed to give students a basic working knowledge of cardiovascular fitness using walking, the nation's most popular form of exercise. Other topics covered include proper form, flexibility, stress management, motivation and current fitness topics. This class is tailored to meet the needs of students at all levels.

# Prerequisites and/or co-requisites: none

### Rationale:

The revised name is needed to adequately reflect current trends regarding health and physical fitness. Contrary to the original course name, physical fitness is not necessarily considered sport. In addition, the course description portrays a fitness-based class, not a competitive sport class.