

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

To: Peter Bales, Academic Senate Steering Committee
From: Aránzazu Borrachero, Chairperson, Committee on Curriculum
Date: February 21, 2015

Subject: Monthly Report

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

1. One elimination of a concentration
2. Six new courses
3. Sixteen revised courses
4. One program revision

DEPARTMENT OF ART AND DESIGN

1. Elimination of Interdisciplinary Concentration

INTERDISCIPLINARY CONCENTRATION

~~Students with specific educational and career goals in the fine and performing arts may select an interdisciplinary concentration. Students following an interdisciplinary concentration **must be guided by a special advisory committee**, composed of members of the faculty from each of the departments making up the interdisciplinary concentration.~~

Rationale: In discussion with the other VAPA departments, it was determined that the interdisciplinary option in the VAPA program should be eliminated because it is not heavily utilized and will be a hindrance to all of the VAPA departments, which are applying for accreditation. It is a problem for accreditation because it does not require enough credits in either discipline to qualify as a "major." One of the principal touchstones for accreditation is clarity and specificity in our programs, and this interdisciplinary option introduces confusion in the graduation requirements.

Additionally, it does not provide a useful option for our students at this time. With Pathways and other changes, there are too few classes in the concentration to make it meaningful in a two-year college setting. Over the years, only a handful of students have taken advantage of it. A vote was taken to eliminate the interdisciplinary concentration by the Department of Art and Design, on 12/10/14, by departmental faculty of Speech and Theatre on 12/17/14, by the Music faculty on 11/11/14, and by the Dance faculty on 2/9/15.

2. Revised courses

ARTS-191 Introduction to Video Art

Prerequisites: None

Hours and credits: 4 studio hours, 3 credits

From:

~~A basic course in video tape techniques and video as a means of artistic expression. Students learn the use of the portapak and elementary editing and produce several short pieces.~~

To:

This course will introduce students to digital video production and editing, with an emphasis on cinematic techniques and the history of moving images. Students will learn varied approaches to video production,

gain cinematography skills, and develop a unique visual style. The course will consist of lecture, demos/in-class activities, class discussion, student presentations, and studio time.

Rationale: The present course description is dated and needs to reflect present technologies and techniques.

ARTS-390 Portfolio Project in Studio Art

Prerequisites: 15 credits in Studio Arts, ARTH 100 (formerly AR-310) or ARTH 101 (formerly AR-311), and at least one Art History elective

Hours and credits: Independent study equivalent to 2 studio hours, 1 credit

From:

A second-year, independent study course specializing in the solving of aesthetic, technical and professional problems. Major emphasis is on building a portfolio for presentation for employment or application for 4-year degree programs based on student-generated creative project in the medium of the individual student's concentration. The student meets with the course instructor and/or faculty adviser for regularly scheduled meetings to present their work as it develops, or for critique and discussion. There is a required term paper, due one week in advance of the final review at the end of the semester. ~~A committee of art department faculty participates in the review and grading. Any incompletes are the decision of the committee only, and are based on the presentation of work during final review.~~

To:

A second-year, independent study course specializing in the solving of aesthetic, technical and professional problems. Major emphasis is on building a portfolio for presentation for employment or application for 4-year degree programs based on student-generated creative project in the medium of the individual student's concentration. The student meets with the course instructor and/or faculty adviser for regularly scheduled meetings to present their work as it develops, or for critique and discussion. There is a required term paper, due one week in advance of the final review at the end of the semester.

Rationale: This course was originally conceived as a capstone course that provided for both the creation of a portfolio and a review of the students' cumulative work. However, because NASAD accreditation requires that a committee review student work after the first year or the completion of 30 credits, the review aspect of the original ARTS-390 Portfolio class is no longer necessary. It is still important that students have a strong portfolio to transfer to a senior college program, and/or go out into the world as an artist, but there will no longer be a departmental review of a "capstone" portfolio because we are moving that review process to an earlier point in the student's trajectory.

DEPARTMENT OF BIOLOGICAL SCIENCES AND GEOLOGY

1. New course

BI-111: Introduction to Human Biology

Prerequisites (and/or) co-requisites: None

Hours and credits: 3 classroom hours, 3 credits

Levels of organization of the human body are emphasized, from biochemistry and cell biology to tissues, organs and organ-systems. Both the anatomical structure and the physiological function of the human body and its components will be studied. Designed for students in the Medical Office Assistant program and recommended for those students who do not have a strong background in the sciences and plan to take BI-301 (Anatomy & Physiology). Not open to students who have successfully completed BI-140, BI-160, BI-201, BI-301 or BI-501.

Rationale: 1) Students in the Medical Office Program require a working knowledge of the human body in order to understand clinical coursework and to function in their profession. (2) There is a strong need for a preparatory Anatomy and Physiology course to address the high dropout rate and poor academic performance found in the gateway BI-301 Anatomy and Physiology course. Currently, many students

entering BI-301 do poorly in the course or have to drop out. Some of the students who do succeed are repeaters, having unsuccessfully taken BI-301 once. Having a real preparatory course can reduce the number of students who adversely impact their GPA, which undermines successful transitions into health careers. It will also reduce the number of students who abandon their goals of a health career after taking their BI-301. Supporting these students can help with retention and transition into a field where job opportunities do exist. (3) This course will also be an excellent introduction to human biology for the non-science majors. Students taking this course will gain a better understanding of health management and their own health, as well as appreciate current societal and ethical issues grounded in human biology.

2. Revised course

From:

BI-340 Assisting in the Medical Office: Clinical Testing Procedures

Prerequisite: ~~BI-140~~ and BI-520 for students in the Medical Office Assistant Certificate Program. (Students not enrolled in the Medical Office Assistant Certificate Program may substitute BI-140, BI-201, BI-301, or the equivalent.) Not open to students in the Medical Laboratory Technology Program who are required to take BI-401 and BI-407.

Hours and credits: 1 class hour, 2 laboratory hours, 2 credits

To:

BI-340 Assisting in the Medical Office: Clinical Testing Procedures

Prerequisite: BI-111 and BI-520 for students in the Medical Office Assistant Certificate Program and the Medical Office A.A.S. Program. (Students not enrolled in the Medical Office Assistant Certificate or A.A.S. Program may substitute BI-140, BI-201, BI-301, or the equivalent.) ~~Not open to students in the Medical Laboratory Technology Program, who are required to take BI-401 and BI-407.~~

Hours and credits: 1 class hour, 2 laboratory hours, 2 credits

Rationale: BI-340 is a clinical course for students in the Medical Office Assistant program. The prerequisite change reflects the proposed curricular change from BI-110 to Human Biology BI-111. BI-111 will provide a stronger foundation for students taking BI-340. Also, the current write-up in the college catalog course description only lists BI-340 as a prerequisite in the Certificate program and does not mention the A.A.S. program. After consulting with the biology faculty that developed for the curriculum for Medical Office Assistant, it appears that it was an oversight to not include the A.A.S. program in this course catalog, so it is appropriate to amend it at this point in time. The reference to the Medical Laboratory Technology Program is eliminated as the program is no longer offered.

3. Program revision

Medical Office Assistant Program, A.A.S. and Certificate

From:

REQUIREMENTS FOR THE MAJOR - BIOLOGY

BI-110 ~~Fundamentals of Life Sciences~~ _____ 3

To:

REQUIREMENTS FOR THE MAJOR - BIOLOGY

BI-111 Introduction to Human Biology _____ 3

Rationale: BI-110 syllabus covers both human and non-human aspects of life sciences. The Medical Office Assistant certificate students require a strong understanding of human biology as a foundation for their clinical coursework and for the workplace. BI-111 is a course that focuses on human biology and can provide these students with the knowledge and skills they need to succeed in this field.

DEPARTMENT OF CHEMISTRY

Revised Courses

1. CH-101: Living in a Chemical World

From:

CH-101: Living in a Chemical World

Hours and credits: 3 class hours, 3 credits

Successful completion of CH-101 satisfies the Life and Physical Sciences General Educations Core Requirement. ~~May not be used as part of the Mathematics or Science Concentration required in the A.S. in Liberal Arts and Sciences curriculum. Current topics of interest to all people in a chemical world are examined, including household products, useful and abused drugs, cosmetics, food chemistry, chemotherapy, fertilizers, pesticides, and carcinogens. The approach is nonmathematical and demonstrates how stimulating and relevant chemistry is to daily life. To satisfy the laboratory science requirement for the A.A. degree, students are required to take the associated laboratory class CH-102.~~

To:

CH-101 Living in a Chemical World

Prerequisites: None

Hours and credits: 3 class hours, 3 credits

This is a lecture course with hands-on laboratory experiments where the role of chemistry in everyday processes is highlighted and discussed. Topics covered include: The chemistry of food and medicines, vitamins and minerals, water and air, household products and fuels. The approach is non-mathematical and strives towards making chemistry stimulating and relevant to daily life. The goal is to introduce the applied aspects of chemistry to non-science majors, explain the world we live in, and to aid students to become more educated consumers and citizens. The Writing Intensive section includes writing assignments centered around these topics.

Successful completion of CH-101 satisfies the Life and Physical Sciences General Educations Core Requirement. To satisfy the laboratory science requirement for the A.A. degree, students are required to take the associated laboratory class CH-102. May not be used as part of the Mathematics or Science Concentration required in the A.S. in Liberal Arts and Sciences curriculum.

Rationale: The course description has been changed to ensure consistency on CUNYFirst, the College Catalog, and the syllabus. The new description more accurately reflects the current requirements and content of the course.

2. CH-102 Living in a Chemical World- Laboratory

From:

CH-102 Living in a Chemical World- Laboratory

Hours and credits: 2 class hours, 1 credit

~~May not be used as part of the Science or Mathematics Concentration required in the A.S. in Liberal Arts and Sciences curriculum. Experiments examine foods, detergents, aspirin, and other commonplace items to demonstrate the ways everyday life is affected by chemistry. These experiments also serve to acquaint the student with some of the fundamentals of laboratory work.~~

To:

CH-102 Living in a Chemical World Laboratory

Co-requisite: CH-101

Hours and credits: 2 class hours, 1 credit

This laboratory course should be taken with CH-101 (Living in a Chemical World lecture). The role of chemistry in everyday life is highlighted and explored. Basic experimental design and analysis are studied. Methods are introduced for the analysis of food, medicines, and household products. Laboratory techniques such as synthesis, titrations, chromatography, use of the spectrophotometer, and Geiger-Muller counter are employed.

Successful completion of CH-101 and CH-102 satisfies the laboratory science requirement for the Associate in Arts (A.A.) degree. May not be used as part of the Science or Mathematics Concentration required in the A.S. in Liberal Arts and Sciences curriculum.

Rationale: The course has undergone significant changes since its inception, which are not reflected in the current course description. The course description has been changed to ensure consistency on CUNYFirst, the College Catalog, and the syllabus. The new description more accurately reflects the current requirements and content of the course.

3. CH-103: Chemistry and The Arts

From:

CH-103: Chemistry and The Arts

Prerequisites: None

Hours and credits: 3 class hours, 3 credits

~~It is recommended that students taking this course also take CH 104 (Chemistry and the Arts Laboratory). Successful completion of CH 103, 104 satisfies the laboratory science requirement for the A.A. degree. This course and CH 104 are recommended for students in programs offered by the Art and Photography Department. This sequence may not be used as part of the Mathematics or Science concentration in A.S. in Liberal Arts and Sciences curriculum. Not open to students who have completed CH 151, CH 152, CH 251, CH 252.~~

~~The origin of light absorption and emission. Light scattering, reflection and refraction and transmittance. The nature of color, color mixing, additive and subtractive color mixing. Chemical structure and properties of dyes, paints and pigments dispersed in oils, acrylic, water, etc. The physical properties of melt, waxes, and patinas for metals used in modern sculpting. The chemistry of art preservation and authentication of art objects. The hazards of chemicals used by artists. The principle of black and white and color photography.~~

To:

CH-103: Chemistry and The Arts- Lecture

Prerequisites: None

Hours and credits: 3 class hours, 3 credits

This course offers a general background in the connections between chemistry and the arts. Topics include light absorption and reflection; the nature of color; additive and subtractive color mixing; separation of mixtures; properties of paints and pigments; preservation and authentication of art objects; common chemical hazards; and the principles of photography.

Either CH 106 or a combination of CH 103 and 104 meets requirements for the A.A.S. degree in Digital Art and Design and are recommended for students in programs offered by the Art and Photography Department. These courses may not be used as part of the Mathematics or Science concentration in A.S. in Liberal Arts and Sciences curriculum and is not open to students who have completed CH-151, CH-152, CH-251 or CH-252.

Rationale: The edits above are not substantive and do not reflect any changes to the content of the course. An updated description of the course is required to make it consistent with the format of other course descriptions provided by the Chemistry Department.

4. CH-104: Chemistry and The Arts- Laboratory

From:

CH-104: Chemistry and The Arts- Laboratory

Prerequisite: CH-103

Hours: 2 laboratory hours, 1 credit

~~Successful completion the laboratory of CH-103, 104 satisfies science requirement for the A.A. degree. May not be used as part of the Mathematics or Science concentration required in the A.S. in Liberal Arts and Sciences curriculum.~~

~~Visible absorption spectroscopy. Synthesis of pigments. Dyeing with indigo; making tie-dye shirts. Manufacturing of gouache paint. Light fastness testing. Preparation of azodye (Para Red), and the pH effect on dyes. Separation of colored compounds by column chromatography and thin layer chromatography.~~

To:

CH-104: Chemistry and The Arts- Laboratory

Co-requisite: CH-103

Hours: 2 laboratory hours, 1 credit

This laboratory applies chemical theory and techniques to practices involved in creating works of art. Students use modern laboratory instrumentation and methods such as chromatography to make and examine materials used in art.

Not open to students who have completed CH-151, CH-152, CH-251 or CH-252.

Either CH-106, Chemistry and the Arts (lecture and laboratory combined) or CH-104 and CH 103 is required for the A.A.S. degree in Digital Art and Design and is recommended for students in programs offered by the Art and Photography Department. This course may not be used as part of the Mathematics or Science concentration in A.S. in Liberal Arts and Sciences curriculum and is not open to students who have completed CH-151, CH-152, CH-251 or CH-252.

Rationale: The edits above are not substantive and do not reflect any changes to the content of the course. An updated description of the course is required to make it consistent with the format of other course descriptions provided by the Chemistry Department.

5. CH-106: Chemistry and The Arts

From:

CH-106: Chemistry and The Arts (Combined Lecture and Lab)

Prerequisites: None

Credits and hours: 4 credits, 3 class hours, 2 laboratory hours

~~This course offers a general background in the application of Chemistry to Art. Topics include light absorption and emission; the nature of color; additive and subtractive color mixing; chromatographic separation of compounds; chemical properties, synthesis and use of dyes, paints and pigments; the chemistry of art preservation and authentication of art objects; the hazards of chemicals used by artists; and the principles of photography. Use of modern laboratory instrumentation will be used to examine the properties of art materials. This course is not open to students who have completed CH-151, 152, 251, or 252.~~

To:

CH-106: Chemistry and The Arts-Lecture and Laboratory

Prerequisites: None

Credits and hours: 4 credits, 3 class hours, 2 laboratory hours

This course offers a general background in the connections between chemistry and the arts. Topics include light absorption and reflection; the nature of color; additive and subtractive color mixing;

separation of mixtures; properties of paints and pigments; preservation and authentication of art objects; common chemical hazards; and the principles of photography. The laboratory component applies chemical theory and techniques to practices involved in creating works of art. Students use modern laboratory instrumentation and methods such as chromatography to make and examine materials used in art.

This course is required for the A.A.S. degree in Digital Art and Design and is recommended for students in programs offered by the Art and Photography Department. This course satisfies the laboratory science requirement for the A. A. degree. Completing CH-106 is equivalent to completing CH-103 and CH-104. This course may not be used as part of the Mathematics or Science concentration in A.S. in Liberal Arts and Sciences curriculum and is not open to students who have completed CH-151, CH-152, CH-251 or CH-252.

Rationale: The edits above are not substantive and do not reflect any changes to the content of the course. An updated description of the course is required to make it consistent with the format of other course descriptions provided by the Chemistry Department.

6. CH-110: Chemistry and the Environment

From:

CH-110: Chemistry and the Environment

Hours and credits: 3 class hours, 3 credits

~~It is recommended that students taking this course also take CH-111 (Environment Laboratory). Successful completion of CH-110, 111 satisfies the laboratory science requirement for the A.A. degree. Air, water, nuclear, pesticide, noise, and solid waste pollution discussed in terms of sources, effects, and control. Basic principles introduced as needed.~~

This is a ~~Writing Intensive~~ course with hands-on laboratory experiments where the role of chemistry in current environmental topics of interest to all citizens is examined. Topics covered include: Green Chemistry, Acid Rain, Destruction of Ozone layer, Greenhouse effect and Global Warming, Traditional and Alternative Energy sources, Air, Water and Land Pollution - sources, effects, detection and control / prevention. An emphasis is placed on the importance of practicing green chemistry in order to achieve a sustainable civilization. To satisfy the laboratory science requirement for the A.A. degree, students are required to take the CH-111 lab.

To:

CH-110: Chemistry and the Environment

Prerequisite: None

Hours and credits: 3 class hours, 3 credits

This is a lecture course with hands-on laboratory experiments where the role of chemistry in current environmental topics of interest to all citizens is examined. Topics covered include: Green Chemistry, Acid Rain, Destruction of Ozone layer, Greenhouse effect and Global Warming, Traditional and Alternative Energy sources, Air, Water and Land Pollution - sources, effects, detection and control / prevention. An emphasis is placed on the importance of practicing green chemistry in order to achieve a sustainable civilization. The Writing Intensive section includes writing assignments centered around these topics.

Successful completion of CH-110 satisfies the Life and Physical Sciences General Educations Core Requirement. To satisfy the laboratory science requirement for the A.A. degree, students are required to take the associated laboratory class CH-111. May not be used as part of the Mathematics or Science Concentration required in the A.S. in Liberal Arts and Sciences curriculum.

Rationale: The course has undergone significant changes since its inception, which are not reflected in the current course description. The course description has been changed to ensure consistency on CUNYFirst, the College Catalog, and the syllabus. The new description more accurately reflects the current requirements and content of the course.

7. CH-111: Environment- Laboratory

From:

CH-111: Environment-Laboratory

Hours and credits: 2 class hours, 1 credit

Successful completion of CH 110, 111 satisfies the laboratory science requirement for the Associate in Arts (A.A.) degree.

~~A general introductory course which may be taken with CH 110. Basic experimental design and data gathering and analysis emphasized along with methods used to evaluate pollutants in air and water. The theory and practice of chemical techniques and instruments used in analysis presented.~~

To:

CH-111 Chemistry and the Environment- Laboratory

Co-requisite: CH-110

Hours and credits: 2 class hours, 1 credit

An environmental chemistry laboratory course that should be taken with CH-110 (Chemistry and the Environment lecture). The role of chemistry in environmental processes is highlighted and explored. Basic experimental design and analysis are studied. Methods are introduced for the determination of some aspects of air and water quality. Laboratory techniques such as titrations, chromatography, use of the spectrophotometer, and Geiger- Muller counter are employed in pollutant determinations. Successful completion of CH-110 and CH-111 satisfies the laboratory science requirement for the Associate in Arts (A.A.) degree. May not be used as part of the Science or Mathematics Concentration required in the A.S. in Liberal Arts and Sciences curriculum.

Rationale: The course has undergone significant changes since its inception, which are not reflected in the current course description. The course description has been changed to ensure consistency on CUNYFirst, the College Catalog, and the syllabus. The new description more accurately reflects the current requirements and content of the course. The course title has been changed due to the fact that it is incorrect as stated in the College Catalog and on CUNYFirst. The word “Chemistry” was mistakenly cut off in the title during previous years in both the descriptions in the College Catalog and consequently on CUNYFirst.

8. CH-120: Fundamentals of Chemistry

From:

CH-120: Fundamentals of Chemistry

Hours and credits: 3 class hours, 3 credits

~~It is recommended that students taking this course also take CH 121 (Fundamentals of Chemistry Laboratory). Successful completion of CH 120, 121 satisfies the laboratory science requirement for the A.A. degree. Students wishing to take CH 120 without CH 121 must obtain Departmental permission. A presentation of fundamental laws, theories, and principles of general chemistry. Minimal knowledge of mathematics is required.~~

To:

CH-120: Fundamentals of Chemistry

Prerequisite: None

Hours and credits: 3 class hours, 3 credits

This hybrid lecture and laboratory course covers the most fundamental laws, theories, and principles of general chemistry, including classification and properties of matter; measurements; elements and compounds; atomic theory and structure; the periodic table; chemical equations; the mole concept and stoichiometry; chemical bonding; and acids and bases. This course includes five experiments to give students hands-on experience with basic laboratory methods and application of theory. Knowledge of

basic mathematics is assumed. Students are strongly encouraged to also take CH-121 (Fundamentals of Chemistry Laboratory).

Successful completion of CH-120 and CH-121 satisfies the laboratory science requirement for the A.A. degree. This course is not open to students who have completed CH-127, 128, 151, 152, 251, or 252.

Rationale: The only changes are in the Course Description. All other aspects of the course are unchanged. If approved, the course description will appear the same on CUNYFirst, in the College Catalog, and on the course syllabus. The course description as it currently appears on CUNYFirst is vague. It does not indicate any of the topics covered and there is no mention that it is a hybrid lecture-laboratory course. It incorrectly states that Departmental permission must be obtained to take CH-120 without the complementary lab course CH-121. The new version correctly states that taking CH-121 is strongly encouraged. Although there are no math prerequisites for CH-120, students are expected to be familiar with basic mathematics (addition, subtraction, multiplication, division). Instructors dedicate significant class time teaching students to apply the math, but are not expected to teach basic math as new concepts. The statement “Minimal knowledge of mathematics is required” could be misleading. The revised statement “Knowledge of basic mathematics is assumed” is more clear and direct. Finally, the new version indicates that this introductory level course may not be taken by students who have already completed more advanced chemistry courses.

9. CH-121: Fundamentals of Chemistry-Laboratory

From:

CH-121: Fundamentals of Chemistry-Laboratory

Co-requisite: CH-120

Hours and credits: 2 laboratory hours, 1 credit

~~Successful completion of CH-120, 121 satisfies the laboratory science requirement for the Associate in Arts (A.A.) degree. Introduction to practical aspects of chemical principles. Experiments are designed to illustrate simple chemical principles and basic laboratory techniques. The aim is to provide a background to how chemical laws are derived, verified, and applied.~~

To:

CH-121 Fundamentals of Chemistry Laboratory

Co-requisite: CH-120

Hours and credits: 2 laboratory hours, 1 credit

This laboratory course complements CH-120 (Fundamentals of Chemistry) and provides basic knowledge of modern experimental chemistry. It demonstrates how chemical laws are derived, verified, and applied. It introduces essential laboratory methods and techniques including separations and chromatography; determination of density and melting and boiling points; electrical conductivity of solutions; qualitative analysis; chemical reactions and stoichiometry; pH analysis; and titration. Students are strongly encouraged to take CH-121 while taking CH-120.

Successful completion of CH-120 and CH-121 satisfies the laboratory science requirement for the A.A. degree. This course is not open to students who have completed CH-127, 128, 151, 152, 251, or 252.

Rationale: The only changes are in the Course Description. All other aspects of the course are unchanged. If approved, the course description will appear the same on CUNYFirst, in the College Catalog, and on the course syllabus. The current course description as it appears on CUNYFirst is vague. The new version more clearly notes the connection to CH-120 and indicates the experimental methods taught. It also states that students should take CH-121 while taking CH-120 and that this introductory level laboratory course may not be taken by students who have already completed more advanced chemistry courses.

10. CH-127 Introductory College Chemistry

From:

CH-127 Introductory College Chemistry

Hours and credits: 3 class hours, 3 laboratory hours, 4.5 credits

~~Recommended for students in Nursing, Medical Laboratory Technology program, and others planning to pursue careers in Allied Health curricula. Also recommended for those who expect to take CH-128 (Introductory Organic Chemistry). Students majoring in curricula other than Allied Health should register for CH-101, 102; CH-103, 104; CH-110, 111; CH-120, 121; CH-130, 131. Not open to students who have completed CH-120; CH-151, 152; CH-251, 252.~~

~~The basic principles and theories of college chemistry are covered, with emphasis on topics related to biological sciences. Topics include atomic structure, bonding, gas laws, solutions, and acid-base theory.~~

To:

CH-127 Introductory General Chemistry

Prerequisite: None

Hours and credits: 3 class hours, 3 laboratory hours, 4.5 credits

This course is the first semester of a two-semester sequence intended to provide students with basic knowledge of general chemistry. The second semester introduces organic chemistry (CH-128). Topics include units of measurement and dimensional analysis, elements and compounds, atomic structure, chemical bonding and chemical reactions, properties of solutions and chemical equilibrium, acid-base chemistry, physical states and gas laws, intra- and intermolecular forces, and nuclear chemistry. In the laboratory component, students apply the scientific method to explore natural phenomena using basic experimental techniques.

The course is a requirement for the B.S. or B.A. in Nursing, Nutrition, and other Allied Health Professions. It also satisfies the laboratory science requirement for the A.S. in Health Sciences, A.A. in Liberal Arts and Sciences (non-science concentration) and other non-science majors. This course is not open to students who have completed CH-151, CH-152, CH-251, and CH-252.

Rationale: The changes are in the Course Title and Description. All other aspects of the course are unchanged. The proposed changes to the course description will appear on CUNYFirst, in the College Catalog, and on the course syllabus. The course title was changed to be aligned with equivalent courses at other institutions and the second semester of the sequence and QCC and elsewhere. The course description was changed to ensure consistency on CUNYFirst, the College Catalog, and the syllabus. The new description more accurately reflects the current requirements and content of the course.

11. CH-128: Introductory Organic Chemistry

From:

CH-128: Introductory Organic Chemistry

Prerequisites: CH-120, CH-127 or CH-151

Hours and Credits: 3 lecture hours, 4 laboratory hours, 4.5 Credits

~~Not open to students who have completed CH-251. Recommended for students in Nursing, and others planning to pursue careers in Allied Health curricula, including those in the Medical Laboratory Technology program. May not be substituted for CH-251, but may be used as preparation for CH-251. Topics include the structure, properties, and reactions of organic functional groups, optical isomerism, stereochemistry, macromolecules, and biomolecules, such as fats, proteins, carbohydrates, and nucleic acids.~~

To:

CH-128: Introductory Organic Chemistry

Prerequisites: CH-120, CH-127 or CH-151

Hours and Credits: 3 lecture hours, 4 laboratory hours, 4.5 credits

This course is the second of a two-semester sequence and is intended to provide a brief, but thorough introduction to organic chemistry and biochemistry. The major functional groups such as hydrocarbons, alcohols, amines and carbonyl compounds are studied with some emphasis on nomenclature, reactions, and stereochemistry. Several aspects of organic chemistry related to biochemistry are also stressed including units on amino acids, enzymes, carbohydrates and lipids. The laboratory introduces students to the various synthetic methods for making organic compounds, as well as to purification techniques like distillation, recrystallization and extraction.

This course is recommended for students in Nursing and others planning to pursue careers in the Allied Health fields. It may be used as a preparation for CH-251, but may not be substituted for CH-251 and is not open to students who have already completed CH-251 or CH-252.

Rationale: Current course description was prepared more than 10 years ago, and has not been updated. Also the current description gives very limited information to students who are interested in the course. For example, it doesn't mention which organic functional groups are the focus of the course or the details of biochemistry included. Although many senior colleges have the equivalent courses to our CH-128 course in their curriculum, it seems hard to find the relationship between our introductory organic chemistry course and their equivalent ones based on the course description. To minimize inconvenience and confusion, the course description should be updated with detailed information about the course.

12. CH-151: General Chemistry I

From:

CH-151 General Chemistry I

Prerequisite: MA-119 and MA-121 or satisfactory score on the Mathematics Placement Test. Students who have not had high school chemistry are strongly advised to take CH-127 prior to CH-151.

Hours and credits: 3 class hours, 1 recitation hour, 3 laboratory hours, 4.5 credits

~~Matter and energy; stoichiometry; gas laws; phase equilibrium; periodicity of elements; atomic and molecular structure; bonding; molecular orbital theory; kinetic theory; states of matter and inter-molecular forces; atomic spectra; properties of solutions, enthalpy; electrolytes; colligative properties; acid-base neutralization.~~

To:

CH-151: General Chemistry I

Prerequisite: MA-119 and MA-121 or satisfactory score on the Mathematics Placement Test. Students who have not had high school chemistry are strongly advised to take CH-127 prior to CH-151.

Hours and credits: 3 class hours, 1 recitation hour, 3 laboratory hours, 4.5 credits

This course is the first part of a two-semester sequence that provides students with a fundamental knowledge of the modern theory in general and inorganic chemistry. It covers topics that are essential to many disciplines in science and technology, and the health professions, with an emphasis on developing problem-solving skills. Topics include matter and energy; chemical nomenclature; mass relationships and stoichiometry; reactions in aqueous solutions; gas laws and kinetic molecular theory; atomic structure and quantum theory; periodicity of elements; chemical bonding and molecular structure; states of matter and intermolecular forces; properties of solutions; and colligative properties. Laboratory work provides training in common experimental methods and hands-on application of theory. The students in Honors classes will attend scientific seminars and write a short paper.

Rationale: The only change to be made is in the Course Description. All other aspects of the course are unchanged. The course description as it currently appears in the College Catalog and on CUNYFirst is simply a list of topics that could appear in a college general chemistry course. However, the list does not

accurately reflect the current content of the course, nor does it provide any information about the laboratory component of the course. The new course description is presented in full and complete sentences, notes the most common programs of study with which it is associated, corrects the list of topics, and describes the laboratory. It also briefly distinguishes the Honors section from the other sections.

13. CH-152 General Chemistry II

From:

CH-152: General Chemistry II

Prerequisite: CH-151

Hours and credits: 3 class hours, 1 recitation hour, 3 laboratory hours, 4.5 credits

~~Kinetics; thermodynamics; gas phase equilibria; pH; dissociation of weak acids and bases; buffers; ionic equilibria; solubility product; hydrolysis; Nernst equation; electrochemistry; voltaic and electrolytic cells; Faraday's Law; nuclear chemistry; theory of analytic group separation and ion identification.~~

To:

CH-152: General Chemistry II

Prerequisite: CH-151

Hours and credits: 3 class hours, 1 recitation hour, 3 laboratory hours, 4.5 credits

This course is the second part of a two-semester sequence that provides students with a fundamental knowledge of the modern theory in general and inorganic chemistry. It covers topics that are essential to many disciplines in science and technology, and the health professions, with an emphasis on developing problem-solving skills. Topics include enthalpy, entropy, and free energy; chemical kinetics; chemical equilibrium in gaseous and aqueous systems; properties and equilibria of acids and bases; buffers and acid-base titrations; solubility and complex ion equilibria; qualitative analysis; electrochemistry and redox reactions; and an introduction to nuclear chemistry. Laboratory work provides training in common experimental methods and hands-on application of theory. The students in Honors classes will give 10-15 minute oral presentations on topics and concepts chosen from the course material. This course makes extensive use of computers and requires the development of scientific communication skills.

Rationale: The only change to be made is in the Course Description. All other aspects of the course are unchanged. The course description as it currently appears in the College Catalog and on CUNYFirst is simply a list of topics that could appear in a college general chemistry course. However, the list does not accurately reflect the current content of the course, nor does it provide any information about the laboratory component of the course. The new course description is presented in full and complete sentences, notes the most common programs of study with which it is associated, corrects the list of topics, and describes the laboratory. It also briefly distinguishes the Honors section from the other sections.

DEPARTMENT OF ENGINEERING TECHNOLOGY

New course

ET-232: Wireless Mobile Communications

Prerequisite: ET-704 or Department Permission

Hours and credits: 3 credits, 3 hours

This course covers the important aspects of mobile and wireless communications from the Internet to signals, access protocols and cellular systems, emphasizing the key area of digital data transfer.

Rationale: One of the key characteristics of today's society is that people are mobile. The devices and applications that we use today already show the great importance of mobile communications. We cannot make a precise prediction, but as a general feature, most computers in the future will certainly be

portable. Users, access networks with the help of computers or other communication devices without any wires, i.e., wirelessly. The term “wireless” only describes the way of accessing a network or other communication partners. The wire is replaced by the transmission of electromagnetic waves through ‘the air’ (although wireless transmission does not need any medium).

There are two different kinds of mobility: user mobility and device portability. User mobility refers to a user who has access to the same or similar telecommunication services at different places, that is, the user can be mobile and the services will follow him or her. Examples for mechanisms supporting user mobility are simple call-forwarding solutions known from the telephone or computer desktops supporting roaming (the desktop looks the same no matter which computer a user uses to log into the network).

With device portability, the communication device moves (with or without a user). Many mechanisms in the network and inside the device have to make sure that communication is still possible while the device is moving. A typical example for systems supporting device portability is the mobile phone system, where the technology itself hands the device from one radio transmitter (also called a base station) to the next if the signal becomes too weak.

This course will offer students practical insight into wireless network and medium issues and will empower students to deal with the growing need of most current technologies: mobile and wireless devices and the networks supporting them. Wireless communication is one of today’s most promising technological advances.

DEPARTMENT OF HISTORY

New course

HI-115: World History since 1500

Prerequisites: BE-122 (or 226) and BE-112 (or 205), or satisfactory score on the CUNY/ACT Assessment Test

Hours and credits: 3 hours, 3 credits

This course focuses on the history of globalization since 1500 and takes a look at 20th century events (Great War, Second World War, Cold War) from a global perspective. Due to the fact that these events are usually covered from a Western, namely European or US, perspective, this course will focus on regions that are usually overlooked. It will deal, for example, with Africa, the Middle East and South and Southeast Asia. The students will learn about the origins of our multicultural world in the 21st century and analyze culture based stereotypes and prejudices. Besides political and economic questions, the role of world religions and the big -isms (Colonialism, Nationalism, and Imperialism) will be explained and discussed.

Rationale: A course on World History since 1500 is needed to broaden the perspective of the students of QCC with regard to their own history. The multi-ethnic, multi-cultural perspective of living in the 21st century is highly influenced by the past. Different religions, traditions, and cultural heritages came into contact as a consequence of European expansion and their interrelationship was further developed by the history of world events. In contrast to Western Civilization classes this course will especially highlight the non-European world and thereby increase the general knowledge of our graduates.

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

New courses

MATH-905: Undergraduate Research in Mathematics and/or Computer Science I

Prerequisites: MA-440 or permission of the Department. Students need permission from the instructor in order to register for a section of this course. In addition, they need a letter of recommendation from a Math & CS instructor who has had the student in a college level class.

Hours and credits: 90 hours of research, 2 credits

MA-905 will focus on a specific research question or topic to be announced in advance and will vary each semester as well as it will vary by section. Descriptions of the research topic in a particular section in a

particular semester will be available in the Math & CS Department before registration. Areas of research include but are not limited to: Mathematical Modeling, Simulations, Computer Coding or Web Design, Statistical Research, Logic, Algebra, Geometry, Number Theory, Actuarial Science, Signal Processing, Mathematical Neuroscience, Dynamical Systems, Pedagogical Research (in Math), and History of Mathematics.

MATH-906: Undergraduate Research in Mathematics and/or Computer Science II

Prerequisites: MA 905 or permission of the Department. Students need permission from the instructor in order to register for a section of this course.

Hours and credits: 90 hours of research, 2 credits

MA 906 will be offered exclusively to student-faculty pairs working on a research question or topic started in MA 905 but that requires a second semester of research to be completed in a meaningful way.

Rationale (for MATH-905 and 906): Over the years, faculty members of the Math & CS department have mentored students in undergraduate research via Independent Study courses or Honors contracts. Because of the lack of a formal research class, the work of faculty and students engaged in research have not been differentiated from the work done in a traditional Independent Study class or from an Honors project -both of which do not necessarily call for original work the way “research” does. The college recently institutionalized Undergraduate Research as a High Impact Practice and in that light, the department considers that it is appropriate to establish a formal research course. Both the students and the faculty who participate in this High Impact Practice will receive the appropriate designation and credit. Ideally, the course will be offered every semester with the number of sections offered depending on the number of instructors available to supervise undergraduate research students. Currently, there are 16 students engaged in undergraduate research (Spring 2015) working under the supervision of 10 faculty mentors. Students enrolled in this course are expected to work on their research problems, independently, 6 hours per week.