

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: May 23, 2015

Subject: ANNUAL Report 2014-2015

CC: C. Williams, College Archives

COMMITTEE MEMBERS

T. Bayer (Nursing)
B. Bonous-Smit (Library)
A. Borrachero (Chairperson, Foreign Languages and Literatures)
J. Carroll (Academic Literacy)
M. Chauhan (Committee Secretary, Chemistry)
D. Klarberg (Biological Sciences and Geology)
A. Kolios (Business)
P. Marchese (Ex-Officio, President's Designee, Office of Academic Affairs)
E. Tai (substituting for R. Yuster, ECET-ET, on sick leave; Senate Steering Committee Designee)
L. Zinger (Health, Physical Education and Dance)

Acknowledgements:

The Committee wishes to thank the President, Dr. Diane Bova Call, and the Office of Academic Affairs for a number of ways in which they have supported the work of the committee this year, including reassigned time for its Chair, technological means, and information, discussion and advice related to curricular matters.

The Chairperson of the Committee thanks the Committee members for their dedication and hard work during this academic year.

The Committee wishes to extend a special word of gratitude to Dr. Karen Steele, who, in spite of her demanding agenda as Interim Vice President for Strategic Planning, Assessment and Institutional Effectiveness, has continued to share her time and vast curricular knowledge with the Curriculum Committee and with the faculty members and Chairs preparing curricular proposals. Her advice and thorough review of proposals have been essential to the work of the Curriculum Committee.

Meetings:

The Committee on Curriculum meets on Tuesday afternoons, from approximately 2:00 to 4 P.M. The committee met 17 times during the 2014-2015 academic year. It concluded all matters on its agenda before the May meeting of the Academic Senate.

Recommendations:

The departing Chairperson strongly recommends that the Office of Academic Affairs consider adding 3 credits of reassigned time to the work of the Curriculum Committee Chairperson. The current reassigned load (3 credits) is far from adequate to support the Chairperson in her/his extensive committee duties.

Committee for 2015-2016:

For the next academic year (2015-2016), the Committee will have the following members:

T. Bayer (Nursing)

J. Carroll (Academic Literacy)
L. Ellis (Chairperson, Foreign Languages and Literature)
D. Klarberg (Biological Sciences and Geology)
P. Marchese (Ex-Officio, President's Designee, Office of Academic Affairs)
E. Tai (History)
E. Volchok (Business)
P. Wallach (Secretary, Mathematics and Computer Science)
R. Yuster (Engineering Technology)

Actions of the Committee

The committee took the following actions, all adopted by the Academic Senate during the 2014-2015 academic year:

1. CHANGES IN COURSES
2. CHANGES IN PROGRAMS
3. NEW COURSES
4. DELETION OF PROGRAMS
5. OTHER

1. CHANGES IN COURSES

Department of Art and Design

1. ARTS-191 Introduction to Video Art

From: ARTS-191 Introduction to Video Art

Prerequisites: None

Hours and credits: 4 studio hours, 3 credits

~~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: ARTS-191 Introduction to Video Art

Prerequisites: None

Hours and credits: 4 studio hours, 3 credits

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.

2. ARTS-390 Portfolio Project in Studio Art

From: 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

~~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: 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

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

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

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

Prerequisite: ~~BI-110~~ 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).

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 pre-requisite 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.

Department of Business

1. BU 522 Business Programming with Visual Languages

From: ~~BU 522 Business Programming with Visual Languages~~

To: CIS-202 Computer Programming for Business II

2. BU 500 Introduction to Microcomputer Applications

From: ~~BU 500 Introduction to Microcomputer Applications~~

To: CIS-101 Introduction to Microcomputer Applications

3. BU 534 Local Area Network Management

From: ~~BU 534 Local Area Network Management~~

To: CIS-201 Local Area Network Management

4. BU 532 Microcomputer Operating Systems and Utility Software

From: ~~BU-532~~ Microcomputer Operating Systems and Utility Software
To: CIS-153 Microcomputer Operating Systems and Utility Software

5. BU 508 Database Management Systems

From: ~~BU-508~~ Database Management Systems
To: CIS-208 Database Management Systems

6. BU 529 Application Development for Mobile Devices

From: ~~BU-529~~ Application Development for Mobile Devices
To: CIS-252 Application Development for Mobile Devices

7. BU 537 Data Security for Business

From: ~~BU-537~~ Data Security for Business
To: CIS-254 Data Security for Business

8. BU-520 Introduction to Computer Programming for Business

From: ~~BU-520 Introduction to Computer Programming for Business~~
2 class hours 2 laboratory hours 3 credits

Introduction to algorithm development and computer programming for business applications in higher-level languages. Problem-solving and hierarchy chart development; flowcharting and pseudocode fundamentals. Input and output statements, conditional and unconditional control statements, the case structure, looping statements, string and numeric functions, arrays, sequential files.

To: CIS 152 Computer Programming for Business I
2 class hours, 2 laboratory hours, 3 credits
Prerequisite: CIS 102

Introduction to algorithm development and computer programming for business applications in higher-level languages. Problem-solving and hierarchy chart development; flowcharting and pseudocode fundamentals. Input and output statements, conditional and unconditional control statements, the case structure, looping statements, string and numeric functions, arrays, sequential files.

Rationale: The programming classes BU520 (CIS 152) and BU521 (CIS 203) are sequence classes so the course title and number has been modified to represent that the BU521 (CIS 203) course material is at a more advanced level than the BU520 (CIS 152) course material. It is intentional that the course be taught using a “higher-level” programming language, which is commonly used in today’s software development environments.

9. BU 521 Business Programming with Objects

From: ~~BU-521 Business Programming with Objects~~
2 class hours 4 laboratory hours 4-credits
Prerequisite: ~~BU-520~~

This course provides an introduction to object-oriented programming methods using the C++ programming language. The object approach supports the development of independent and reusable software components for building complex applications. Using these techniques results in shorter development time, more robust applications, and greater programmer productivity.

To: CIS 203 Object Oriented Programming for Business
2 class hours 3 laboratory hours 3 credits
Prerequisite: CIS-152 and MA-010 or satisfactory score on the Mathematics Placement Test

This course provides an introduction to object-oriented programming methods using the Object Oriented programming language. The object approach supports the development of independent and reusable software components for building

complex applications. Using these techniques results in shorter development time, more robust applications, and greater programmer productivity.

Rationale: The programming classes BU520 (CIS 152) and BU521 (CIS 203) are sequence classes so the course title and number has been modified to represent that the BU521 (CIS 203) course material is at a more advanced level than the BU520 (CIS 152) course material. It is intentional that the course be taught using a “higher-level” programming language, which is commonly used in today’s software development environments. The change in credits brings the course into line with other major courses.

10. BU 524 Web Page: Design and Applications

From: ~~BU 524 Web Page: Design and Applications~~
2 class hours 2 laboratory hours 3 credits
Offered as needed
Prerequisite: ~~BU 532~~

This course introduces Web Page Design principles and concepts, provides hands on experience utilizing Web page authoring software, employs Scripting Programming Languages for data manipulation, and prepares students for developing business applications deployed on the World Wide Web (WWW).

To: CIS 204 Web Design
2 class hours 2 laboratory hours 3 credits
Offered as needed
Prerequisite: CIS-153 and MA-010 or satisfactory score on the Mathematics Placement Test

This course introduces Web Page Design principles and concepts, provides hands on experience utilizing Web page authoring software, employs Scripting Programming Languages for data manipulation, and prepares students for developing business applications deployed on the World Wide Web (WWW).

Rationale: The course title has been changed to reflect the fact that the course is not restricted to Web Page design.

11. BU 512 Introduction-to Information Systems and Technologies

From: ~~BU 512 Introduction to Information Systems and Technologies~~
2 class hours 2 laboratory hours 3 credits

Introduction to how today’s businesses use ever-changing technology to operate, compete, and do business. Students will learn the differences between the major types of hardware, software, and network solutions that meet business needs. Students will learn why familiarity with today’s information systems has become indispensable for tomorrow’s business leaders due to the rapid developments in Information technology (IT).

To: CIS 205 Introduction to Information Systems Management
2 class hours 2 laboratory hours 3 credits
Prerequisite: For CIS majors only: CIS 101 and MA-010 or satisfactory score on the Mathematics Placement Test

Introduction to how today’s businesses use ever-changing technology to operate, compete, and do business. Students will learn the differences between the major types of hardware, software, and network solutions that meet business needs. Students will learn why familiarity with today’s information systems has become indispensable for tomorrow’s business leaders due to the rapid developments in Information technology (IT).

Rationale: The course title has been changed to reflect the systems focus of the course, and the prerequisite for CIS majors has been added to ensure students have the fundamental understanding of desktop applications.

12. BU 530 Spreadsheet Applications

From: ~~BU 530 Spreadsheet Applications~~
2 class hours 3 laboratory hours 3 credits
Prerequisite: ~~BU 500~~

~~Spreadsheet design; types of keyboard entries permitted and graphs; use of built in statistical and financial functions; absolute references and named ranges; database functions and commands for sorting and querying; spreadsheet consolidation and combination; templates; macros. Advanced statistical, financial, and database functions. Use of data tables, logical functions and formulas; lookup tables; advanced graphing techniques, programming macros.~~

To: CIS 206 Spreadsheet Business Applications

2 class hours 3 laboratory hours 3 credits

Prerequisite: CIS 101 and MA-010 or satisfactory score on the Mathematics Placement Test

Students will apply spreadsheet concepts to real-world business situations and strengthen their ability to analyze business problems, examine alternative solutions, and implement solutions using software. Topics include spreadsheet design, efficient/effective data handling, computational analysis, decision support, graphs, templates and macros, advanced statistical, financial, and database functions, use of data tables, logical functions and formulas and lookup tables.

Rationale: While the course content remains the same, we have shifted the focus of the material from “skills and techniques” to real-world business problem solving. This change will allow us to better prepare our students for the expectations of the business community. Redundant and ancillary topics were also removed from the description. The course prefix and number have been changed to reflect the course’s position in the curriculum. The course title has been changed to reflect the new focus on business problem solving.

Department of Chemistry

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~~

~~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

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

1. MT-100 Introduction to Engineering & Technology

From: ~~MT-100~~ Introduction to Engineering & Technology
3 laboratory hours 1 credit

An introduction to the history, philosophy and methodology of engineering and technology-related professions. The disciplines of computer, electrical and mechanical engineering and technology are introduced. Basic mathematical, graphical and analytic skills are developed as well as experimentation and data analysis techniques. The analysis and presentation of engineering data and designs as well as ethical and professional considerations are considered.

To: TECH-100 Introduction to Engineering & Technology
3 laboratory hours 1 credit

An introduction to the history, philosophy and methodology of engineering and technology related professions. The disciplines of computer, electrical and mechanical engineering and technology are introduced. Basic mathematical, graphical and analytic skills are developed as well as experimentation and data analysis techniques. The analysis and presentation of engineering data and designs as well as ethical and professional considerations are considered.

Rationale: Renumbering of course to conform to new departmental standard.

2. MT-481 Architectural Design I

From: ~~MT-484~~ Architectural Design I
2 class hours 4 laboratory hours 3 credits
Prerequisite: ~~MT-444~~

~~Introduction to architectural drawing presentation; plan, elevation, section, detail, perspective, and model-making. Development of preliminary working drawings. Understanding of basic architectural design concepts.~~

To: ARCH-111 Architectural Design I
2 class hours 4 laboratory hours 3 credits
Co-requisite: ARCH-119

An introduction to the fundamentals of architectural design. Students will develop the ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two and three dimensions. Using a combination of manual and digital skills, students will create and interpret three-dimensional objects and spaces and develop drawings and renderings using standard projection systems.

Rationale: This course is being modernized and updated in order to be current in the industry. The loyalty to either

emphasis will be on design concepts, and students will use both manual and computerized skills to implement these ideas. This newly modified course more closely aligns with a similar course at New York City College of Technology, and this will assist transfer students greatly. The pre-requisite has been removed and a co-requisite added in order to ensure that students have the necessary background knowledge to be successful in this course. Course numbering has been updated in order to provide more efficient advising processes.

3. MT-223 Selection of Materials

From: ~~MT-223 Selection of Materials~~

3 class hours 3 credits

Prerequisite: ~~BE-122 (or 226), or satisfactory score on the English Placement Test.~~

~~Study of the physical, mechanical, thermal and electrical properties of metals, alloys, plastics, and other nonmetallic engineering materials. Industrial practice and applications introduced to acquaint students with proper material selection.~~

To: ARCH-113 Building Technology I

2 class hours 3 lab hours 3 credits

Co-requisite: ARCH-111 or CONM-111

An introduction to the basic materials and elements of construction. System analysis, including the study of materials properties and their proper selection. Fundamental principles of architectural drafting. Surveying existing conditions, development of drawings of plans, elevations, sections, and basic details from foundation to roof. An emphasis is on wood and masonry and shallow foundation systems.

Rationale: This course has been on the inactive course roster for some time. It is being re-activated and updated in order to be technically relevant. It is being added to the Architecture curriculum, and it will be taken in tandem with ARCH-111, Architectural Design I. This will provide a unified technical approach in which design concepts and the practical building applications are taught in a modern, integrated approach. The emphasis is on design concepts, and students will use both manual and computerized skills to implement these ideas. This newly modified course more closely aligns with a similar course at New York City College of Technology, and this will assist transfer students greatly. The co-requisite is added to ensure that students get the full benefit of the unified approach. Course numbering has been updated in order to provide more efficient advising processes.

4. MT-484 Construction Methods

From: ~~MT-484 Construction Methods~~

1 lecture hour 2 recitation hours 3 laboratory hours 3 credits

Prerequisite: ~~MT-488~~

~~Construction elements and materials used in the building industry. Types of framing and assembly systems for commercial buildings. Preparation of working drawings to code, with an emphasis on comprehension of the total building process. This course assists in the production of a design studio portfolio.~~

To: ARCH-123 Building Technology II

1 lecture hour 2 recitation hours 3 laboratory hours 3 credits

Pre-requisite: ARCH-113 with a grade of C or higher

A study of the basic materials of construction and the theory and practice of building technology. The course will include investigation of the assembly of building components and methods of construction and framing. Students will develop proficiency in both analog and digital drawing building information modeling (BIM) techniques, and professionally presented construction drawings.

Rationale: This course is being modernized and updated in order to be current in the industry. This will provide a unified technical approach in which design concepts and the practical building applications are taught in a modern, integrated approach. The emphasis is on design concepts, and students will use both manual and computerized skills to implement these ideas. This newly modified course more closely aligns with a similar course at New York City College of Technology, and this will assist transfer students greatly. The pre-requisite is updated to ensure that students have the proper background knowledge to be successful. Course numbering has been updated in order to provide more

5. MT-219 Surveying and Layouts

From: ~~MT-219 Surveying and Layouts~~

2 class hours 3 laboratory hours 3 credits

Prerequisites (and/or) co-requisites: ~~none~~

~~Principles and practice of elementary surveying. Use, adjustment, and care of surveying instruments. Field work in practical application of surveying techniques; measurement of distances, angles, and elevations. Computation and mapping of closed traverses. Use of topographical maps. Scientific calculator required.~~

To: ARCH-125 Surveying and Site Planning

2 class hours 3 laboratory hours 3 credits

Pre-requisites: MA-114 and ARCH-113 all with a grade of C or higher

Principles and practice of elementary surveying. Application of the fundamental techniques of site planning principles and the use of topographical maps and models. The importance of site development as it relates to architecture and sustainable site development. Field work in practical application of surveying techniques; measurement of distances, angles, and elevations. Computation and mapping of closed traverses.

Rationale: This course is being modernized and updated in order to be current in the industry. This will provide a unified technical approach in which design concepts and the practical building applications are taught in a modern, integrated approach. The emphasis is on design concepts, and students will use both manual and computerized skills to implement these ideas. This newly modified course more closely aligns with a similar course at New York City College of Technology, and this will assist transfer students greatly. The pre-requisites are added to ensure that students have the proper background knowledge to be successful and the co-requisite is added to ensure that students benefit from the integrated teaching approach. Course numbering has been updated in order to provide more efficient advising processes.

6. MT-453 Piping Systems

From: ~~MT-453 Piping Systems~~

3 class hours 3 credits

Prerequisite: ~~MT-488~~

~~Design and layout of piping systems and related equipment for heat power, heating, air conditioning, and petrochemical industries. National piping and pressure vessel codes utilized in conjunction with manufacturers' catalog data and piping handbook. Use of piping software is introduced.~~

To: ARCH-237 Environmental Systems

3 class hours 3 credits

Pre-requisite: ARCH-123 with a grade of C or higher

A survey of systems employed in buildings including plumbing, electrical, heating, ventilation, air conditioning and fire alarm and suppression. System components, design, application, equipment locations and distribution will be examined. Sustainability and energy efficiency applications will be addressed and software used for data analysis. National codes are introduced.

Rationale: This course is being modernized and updated in order to be current in the industry. It will incorporate the relevant aspects of MT-454, which will be modernized for relevance. This newly modified course more closely aligns with a similar course at New York City College of Technology, and this will assist transfer students greatly. The pre-requisite is modified to ensure that students have the proper background knowledge to be successful. Course numbering has been updated in order to provide more efficient advising processes.

7. MT-482 Structural Drafting and Design

From: ~~MT-482 Structural Drafting and Design~~

2 class hours 4 laboratory hours 3 credits

Pre-requisite: ~~MT-111, MT-345, MA-114~~

Design and analysis of steel, reinforced concrete, and timber structures. Practice in the preparation of structural drawings including framing plans; general plans; structural steel shop detail drawings; bolted, welded, and riveted connections; reinforced concrete details. Practical projects in building, heavy machine, and bridge construction. Use of structural design codes and specifications.

To: ARCH-248 Structures I

2 class hours 4 laboratory hours 3 credits

Pre-requisites: MT-345 with a grade of C or higher

Design and analysis of steel, reinforced concrete, and timber structures. The behavior of architectural materials in stress and intuitive reasoning related to the mathematical treatment of equilibrium in static structures. Practice in the preparation of structural drawings. Use of structural design codes and specifications.

Rationale: This course is being modernized and updated in order to be current in the industry. This newly modified course more closely aligns with a similar course at New York City College of Technology, and this will assist transfer students greatly. The pre-requisite is streamlined to reflect pre-requisite changes in other courses. Course numbering has been updated in order to provide more efficient advising processes.

8. MT-485 Architectural Design

From: ~~MT-485 Architectural Design~~

2 class hours 4 lab hours 3 credits

~~Offered in Summer Session~~

Pre-requisite: ~~MT-481~~

Co-requisite: ~~MT-484~~

~~Further development of architectural graphics including perspective techniques. Examination of architectural concepts of space, structure and form in the design process. Mechanical and electrical systems. Laboratory work in preparing a complete set of architectural working drawings and specifications.~~

To: ARCH-231 Architectural Design III

2 class hours 4 lab hours 3 credits

Pre-requisites: ARCH-121 and ARCH 129 both with a grade of C or higher

Co-requisite: ARCH-125

An exploration of abstract architectural design theory in the expression of three-dimensional space. The creation of comprehensive architectural design projects is developed following a building program and incorporating elements of site, enclosure, structure, material and technology. Design concepts and vocabulary are introduced and strengthened through design projects. A juried presentation will take place at the completion of each project.

Rationale: This course has been on the inactive course roster for some time. It is being re-activated and updated in order to be technically relevant. It is being added to the Architecture curriculum, and it will be taken as part of the architectural design sequence, following ARCH-111 (Architectural Design I) and ARCH-121 (Architectural Design II). The emphasis is on design concepts, and students will use both manual and computerized skills to implement these ideas. This newly modified course more closely aligns with a similar course at New York City College of Technology, and this will assist transfer students greatly. Pre- and co-requisites are updates to ensure that students have the proper background knowledge and get the full benefit of the unified teaching approach. Course numbering has been updated in order to provide more efficient advising processes.

9. MT-490 Advanced Architectural Modeling

From: ~~MT-490 Advanced Architectural Modeling~~

3 class hours 3 credits

Pre-requisite: ~~MT-488~~

Practical application of advanced architectural software to the generation of 3D models, rendering and the creation of animated visuals for architectural designs. Topics include: creating designs in 3D space, editing 3D designs, viewing objects in 3D space, setting lights, cameras, applying color and materials to surfaces, background color and objects; rendering creation of scenes tracking animation and walk-throughs. This course assists in the production of a design studio portfolio.

To: ARCH-241 Advanced Architectural Modeling
 3 class hours 3 credits
 Pre-requisite: ARCH-231 with a grade of C or higher

Practical application of advanced architectural software to the generation of 3D models, rendering and the creation of animated visuals for architectural designs. Topics include: creating designs in 3D space, editing 3D designs, viewing objects in 3D space, setting lights, cameras, applying color and materials to surfaces, background color and objects; rendering creation of scenes tracking animation and walk-throughs. This course assists in the production of a design studio portfolio.

Rationale: Course numbering has been updated in order to provide more efficient advising processes. Pre-requisite updated to reflect changes in other courses.

10. MT-522 Fluid Mechanics

From: ~~MT-522~~ Fluid Mechanics
 3 class hours 3 lab hours 4 credits
 Prerequisite: ~~MT-341 and MA-128, 125 or 441~~
 Co-requisite: ~~MT-365 or 366~~

~~Behavior of fluids at rest and in motion. Continuity concepts, kinematics, energy and momentum equations, pipe flow, fluid drag. Laboratory practice in the operation of basic fluid apparatus and instrumentation.~~

To: MECH-246 Fluid Mechanics
 3 class hours 3 credits
 Prerequisite: MA-128 and PH-201

An introduction to the mechanics of incompressible fluids. Hydrostatics, kinematics, basic conservation laws for a control volume. Conservation of mass, momentum, angular momentum and energy for flow. Inviscid flow. Bernoulli's and Euler's equations. Viscous flows in pipes and ducts, head loss and friction factor.

Rationale: This course has been on the inactive course roster for some time. It is being re-activated and updated in order to be technically relevant. Credits, class and lab hours have been changed to reflect QCC standards. Pre- and co-requisites have been modified to ensure that students have the proper background knowledge to be successful. This course will be a required course in the Construction Management track of the Architectural Technology curriculum and an elective in the Mechanical Engineering Technology curriculum. Thus, students will have more options when choosing courses.

Department of English

Course Sequencing Revisions

RATIONALE: QCC has traditionally used the two-letter/three-digit convention of denominating classes, but there is an institutional tendency to adopt a more efficient model, utilizing a four-letter convention that further distinguishes the disciplines. "ENGL" is unique to English, unlike the suffix "EN" which is common to both English and Engineering. Additionally, the new sequence and groupings are intended to help students select courses according to their needs and preferences and to present a more coherent program of study, one that more closely follow developments in the English Major in four-year colleges across CUNY.

EN 101-103: ENGLISH COMPOSITION

FROM	TO	Name	Description
[EN-101]	<u>ENGL-101</u>	English Composition I	Development of a process for producing intelligent essays that are clearly and effectively written; library work; 6,000 words of writing, both in formal themes written for evaluation and in informal writing such as the keeping of a journal. During the recitation hour, students review grammar and syntax, sentence structure, paragraph development and organization, and the formulation of thesis statements.

		Introduction to Literature	literature: fiction, drama, and poetry. During the recitation hour, students review basic elements of writing and analytical and critical reading skills and research strategies.
[EN-103]	<u>ENGL-103</u>	Writing for New Media	Students will study and practice writing in Digital Media. They will concentrate on producing clearly and effectively written formal essays with the goal of learning how to communicate in the World Wide Web and e-mail environments. Particular attention will be given to the process of writing, including the use of informal writing strategies. Proficiency in standard grammar and syntax, sentence structure, paragraph development and organization, and the formulation of thesis statements will be stressed in the context of preparing essays, arguments, hyperlinked and other new media documents.

ENG 201-210: Introduction to the Discipline

FROM	TO	Name	Description
[EN-230]	<u>ENGL-201</u>	Introduction to Literary Studies	An inquiry into what it means to study literature, involving close reading and critical analysis of a variety of prose fiction, drama, and poetry, and informed by an introduction to some of the theoretical issues currently debated in literary studies and a consideration of how such issues have evolved historically. In addition to works of literature, students will read critical and theoretical works, some of which they will identify through their own research. This course combines a study of literature with continued training in clear and effective writing.
[EN-303]	<u>ENGL-202</u>	Readings in Poetry	Critical study of the genre of poetry, including epic, narrative, and lyric poems.
[EN-302]	<u>ENGL-203</u>	Readings in Drama	Critical study of the genre of dramatic literature from the Greeks to the Moderns.
[EN-301]	<u>ENGL-204</u>	Readings in Prose Fiction	Critical study of the short story, the novella, and the novel; readings in fiction of the past three centuries.

EN 211-220: Literature in Context

FROM	TO	Name	Description
[EN-401]	<u>ENGL-211</u>	English Literature I – Anglo-Saxon Period through the Eighteenth century	Major British writers from the Anglo-Saxon period through the eighteenth century; principal genres – poetry (the dominant form in this period), romances, and plays.
[EN-402]	<u>ENGL-212</u>	English Literature II: Nineteenth Century to Present	Major British writers from the nineteenth century to the present: principal genres.
[EN-444]	<u>ENGL-213</u>	World Literature I: Ancient through Renaissance	An exploration of the ideas of some of the greatest writers through the Renaissance. Readings from the Bible and Greek drama, The Divine Comedy and The Canterbury Tales, Don Quixote, Hamlet, and Paradise Lost. Emphasis on the varied ways our ancestors looked at love and war, heaven and hell.
[EN-445]	<u>ENGL-214</u>	World Literature II: Masterpieces from the Eighteenth to the Twentieth Centuries	Emphasis on the writer as interpreter of changing culture, science, and psychology, and as creator of imaginative forms; selections from Swift, Voltaire, Rousseau, Goethe, Dostoyevsky, Joyce, Sartre, and Camus.
[EN-411]	<u>ENGL-215</u>	American Literature I: Colonial Period to American Renaissance	Major American writers from the Colonial period to the American Renaissance; study of text in historical perspective.
[EN-412]	<u>ENGL-216</u>	American Literature II – Civil War to Present	Major American writers from the decade preceding the Civil War to the contemporary period; study of texts in historical perspective.

		Literature in English	in the twentieth century. It will address important changes, which have occurred in the English-language literature and “englishes” from non-Western nations, the influence of postmodernist aesthetics and popular culture’s influence on literature. The readings will be selected from a number of national literatures, such as those of Africa, Australia, the Caribbean, Great Britain, Asia, and the United States.
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EN 221-240: Writing Studies

FROM	TO	Name	Description
[EN-201]	<u>ENGL-221</u>	Creative Writing: Fiction	Critical study of the short story, novella, and novel with emphasis on techniques helpful to young writers. Students submit samples of their work for classroom discussion.
[EN-202]	<u>ENGL-222</u>	Creative Writing: Poetry	Critical study of poetry with emphasis on techniques helpful to young writers. Students submit samples of their work for class discussion
[EN-224, 225]	<u>ENGL-231, 232</u>	Special Topics in Writing Studies	<p>These courses will focus on fiction and non-fiction writing about a specific theme or topic to be announced in advance and will vary each semester. Descriptions of the topic in a particular semester will be available in the English Department before registration. Students may take two such courses for credit, as long as they do not repeat the topic. Topics will include but not be limited to:</p> <ul style="list-style-type: none"> • Reading and Writing about Crime and Murder • Reading and Writing about the Immigrant Experience • Finding Nurture in Nature: Reading and Writing about the Natural World • Reading and Writing about Place: Geography, Travel, and Identity • Reading and Writing about War • Be Home Before Dark: Reading and Writing about Family • Navigating Difference: Reading and Writing about Being “Other” • Love, Lust and Romance: Reading and Writing about Love • I Can’t Believe I Ate the Whole Thing: Reading and Writing about Food • Reading and Writing about Prison, Criminality and the Law • Writing for Children and Young Adults • The Teaching of Writing • Multimedia Writing

EN 241-260: Journalism, Media and Cultural Studies

FROM	TO	Name	Description
[EN-214]	<u>ENGL-241</u>	Introduction to Journalism; Editing Principles and Practices	An introduction to journalistic practice through teaching and developing of those writing skills fundamental to the work of reporters and editors. Straight news, feature, and editorial writing are stressed along with the principles and practices of general editing and copy-editing. Students learn to edit, revise, cut, and expand written material to make it suitable for publication in the school newspaper and for professional publication.
[EN-221]	<u>ENGL-242</u>	Documentary Film: The New Journalism	A study of film as a form of contemporary “journalism” that employs proven methods of persuasion and manipulation. It focuses on the power of the medium to record and reveal – but also to distort – aspects of the real world. Documentary films and television newsreels are examined in order to judge the validity of their claims for capturing the “truth” of events. A variety of films, including war documentaries, sociological “essays,” and rock concerts, will be screened and compared to rhetorical and journalistic models. Instruction on writing strategies and techniques specific to audio/visual media

[EN-216]	<u>ENGL-251</u>	Popular Culture	A critical study of the pervasive role the popular arts play in our lives, with emphasis on a rhetorical approach to the mass media. Students will write about the contemporary arts and related issues.
[EN-220]	<u>ENGL-252</u>	Film and Literature	A comparative investigation of the narrative and non-narrative methods and modes of literature and film, their similarities and differences. Novels, plays, short stories, and films are studied. Screenings. Instructions on writing strategies and techniques specific to audio/visual media.

EN 261-299: Topics in Literature

FROM	TO	Name	Description
[EN-217]	<u>ENGL-261</u>	Autobiography	Readings in autobiographies combined with students' writing about their own lives and times. Readings selected from the world's literature including African, Asian, European, Chicano-Latin American, Native American, and American sources.
[EN-219]	<u>ENGL-262</u>	New York	Study your city, the most influential in the world. Readings will include the rich literature about New York, from Washington Irving to Tom Wolfe, as well as The New York Times. Write about the New York you know and the one you'll discover.

EN 300-399 : Advanced courses in Writing and Journalism

FROM	TO	Name	Description
[EN-223]	<u>ENGL-301</u>	Advanced Fiction Writing	This course offers students the opportunity to further develop fiction-writing techniques introduced in EN-201. The course will provide students with intensive practice in a wide variety of narrative forms, supportive critical feedback on their work, strategies for editing, and exposure to a broad range of contemporary published fiction.
[EN-215]	<u>ENGL-311</u>	Journalism II: Feature and Magazine Article Writing	A continuation of the principles and practices of print journalism established in [EN-214] <u>EN-241</u> , with an emphasis on the non-deadlined "soft news" or feature article suitable to special interest areas of newspapers or magazines.
[EN-901, 902]	<u>ENGL-321, 322</u>	Cooperative Education in Journalism	This course is open only to matriculated students who have completed at least 36 credits in Liberal Arts and Sciences with a 2.5 index and who have completed Introduction to Journalism [(EN-214)] <u>EN-241</u> or who have received special permission from the English Department. It is recommended that students who apply possess word processing skills. The cooperative experience in journalism is designed to provide students with internship training in newspaper reporting, editing, and production. Students intern with local weeklies, where they have the opportunity to learn beat reporting, writing news and feature stories and working with editorial, design and business staff. Students are evaluated on the basis of portfolios, journals, conferences with the instructor, and a written evaluation by the employer. Students will earn a grade of "Pass" or "Fail." Only one of these courses may be taken for credit. Interested students should contact the English Department during the semester prior to enrollment to make necessary arrangements.

EN 500-599: Literature Electives

FROM	TO	Name	Description
[EN-601]	<u>ENGL-501</u>	The Novel	Works of such writers as Richardson, Melville, Joyce and others who have contributed to the development of the novel in the English language.

[EN-602]	<u>ENGL-502</u>	Modern Drama	Modern drama as represented in the works of such authors as Ibsen, Strindberg, Ionesco, and Albee.
[EN-611]	<u>ENGL-503</u>	Shakespeare in Elizabethan Drama	Intensive study of selected plays of Shakespeare.
[EN-621]	<u>ENGL-504</u>	The Bible as Literature	Study of the Old and New Testaments as an anthology of poetry, folklore, history, proverbs, letters, and drama; the influence of the Bible on literature, art, and music.
[EN-651]	<u>ENGL-505</u>	Children's Literature	A study of literature for children from its deep cultural roots in myth and legend to its contemporary manifestations as both a reflection and a determiner of modern society.
[EN-815, 816]	<u>ENGL-591, 592</u>	Special Topics in Literature	<p>These courses will focus on a specific theme or topic to be announced in advance and will vary each semester. Descriptions of the topic in a particular semester will be available in the English Department before registration.</p> <p>Students may take two such courses for credit, as long as they do not repeat the topic. Topics will include but not be limited to:</p> <ul style="list-style-type: none"> • Women in Literature • Afro-American Literature • Asian-American Literature • Love and Sexuality • The Experience of War • Growing Up • The Search for Identity • Literature of Madness and the Irrational • Views of Aging in Literature • The Individual and the Community • The Literature of Revolt • The City in Literature • The Immigrant Experience • The American Dream • The Graphic Novel

Department of Health, Physical Education and Dance

1. HE-200: Emergency Medical Technician

From: HE-200 Emergency Medical Technician

[7.5 class hours, 4.5 laboratory hours] 9.5 credits

Prerequisite: A valid CPR (Cardio-Pulmonary Resuscitation) Certificate, HE-110, [or the equivalent; and a valid SFA (Standard First Aid) Certificate, HE-106, or the equivalent.]

This course prepares the student for EMT (Emergency Medical Technician) certification. The content and sequence of the course material are mandated by the State of New York Department of Health, Bureau of Emergency Health Services. Meets national educational guidelines for Emergency Medical Technician Educational standards

To: HE-200 Emergency Medical Technician

9 hours, 5.5 laboratory hours, 9.5 credits

Prerequisite: A valid CPR (Cardio-Pulmonary Resuscitation) Certificate or HE-110.

This course prepares the student for EMT (Emergency Medical Technician) certification. The content and sequence of the course material are mandated by the State of New York Department of Health, Bureau of Emergency Health Services. Meets national educational guidelines for Emergency Medical Technician Educational standard.

Rationale: Early in the Spring 2013 semester, the HPED Department revised the content, credits and hours for HE-200 due to a change in New York State requirements for EMT certification. Further adjustments are necessary now due to the fact that NYS requirements are for clock hours (60 minutes), as opposed to 50-minute class hours. The revised hours reflect the conversion of the state required number of hours to our 50-minute class hours. The elimination of HE-106 reflects the fact that it is not a necessary prerequisite for HE-200.

2. PE-522: Lifeguard Training

From: PE-522 Lifeguard Training
Offered as needed

Prerequisite: Satisfaction of American Red Cross entry standards (test administered by the Department prior to coursework). To become a certified American Red Cross lifeguard, students must have Adult CPR and Standard First Aid certification in addition to completion of this course.

To: PE-522 Lifeguard Training
2 Hours, 1 Credit.

Prerequisite: Satisfaction of American Cross entry standards (test administered by the Department prior to coursework).

This course will teach students the skills and knowledge needed to prevent and respond to aquatic emergencies quickly and effectively. Upon successful completion of the course and all Red Cross requirements students will be eligible to receive certification for lifeguarding and CPR through the American Red Cross

Rationale: The lifeguard curriculum has been revised since we last offered the course. The proposed changes reflect the actualization of the American Red Cross lifeguard curriculum. The credits and hours of this course have been updated to reflect the time required for the course. It is listed as a change because the credits or hours of the course were not originally listed in the college catalog.

3. DAN 120 Beginning Modern Dance for Majors

From: DAN ~~120~~ Beginning Modern Dance for Majors
Hours and credits: ~~2 hours 1 credit~~

To: DAN 124 Beginning Modern Dance for Majors
Hours and Credits: 4 hours 2 credits

4. DAN 121 Advanced Beginning Modern Dance I

From: DAN ~~124~~ Advanced Beginning Modern Dance I
Hours and Credits: ~~2 hours 1 credit~~
Pre-requisite: ~~DAN 120~~ or permission of the department

Description: ~~A continuation of DAN 120, this course will continue to develop movement skills and will introduce choreographic concepts and terminology~~

To: DAN 125 Advanced Beginning Modern Dance I
Hours and credits: 4 hours 2 credits
Pre-requisite: DAN 124 or permission of the instructor

Description: Advanced Beginning Modern Dance places an emphasis on alignment, development of the body, and modern/contemporary dance technique at the Advanced Beginning Level.

5. DAN 122 Advanced Beginning Modern Dance II

From: DAN ~~122~~ Advanced Beginning Modern Dance II
Hours and Credits: ~~2 hours 1 credit~~
Pre-requisite: ~~DAN 121~~ or permission of instructor

To: DAN 126 Advanced Beginning Modern Dance II
Hours and Credits: 4 hours 2 credits
Pre-requisite: DAN 125 or Permission of instructor

6. DAN 123 Advanced Beginning Modern Dance III

From: DAN ~~123~~ Advanced Beginning Modern Dance III
Hours and Credits: ~~1 credit 2 hours~~
Pre-requisite: ~~DAN 122~~ or permission of instructor

To: DAN 127 Advanced Beginning Modern Dance III
Hours and Credits: 2 credits 4 hours
Pre-requisite: DAN 126 or Permission of instructor

7. DAN 130 Beginning Ballet for Majors

From: DAN ~~430~~ Beginning Ballet for Majors
Hours and Credits: ~~1 credit 2 hours~~

To: DAN 134 Beginning Ballet for Majors
Hours and Credits: 2 credits 4 hours

8. DAN 131 Advanced Beginning Ballet I

From: DAN ~~434~~ Advanced Beginning Ballet I
Hours and Credits: ~~1 credit 2 hours~~
Pre-requisite: ~~DAN 130~~ or permission of instructor

To: DAN 135 Advanced Beginning Ballet I
Hours and Credits: 2 credits 4 hours
Pre-requisite: DAN 134 or Permission of instructor

9. DAN 132 Advanced Beginning Ballet II

From: DAN ~~432~~ Advanced Beginning Ballet II
Hours and Credits: ~~1 credit 2 hours~~
Pre-requisite: ~~DAN 131~~ or permission of instructor

To: DAN 136 Advanced Beginning Ballet II
Hours and Credits: 2 credits 4 hours
Pre-requisite: DAN 135 or Permission of instructor

10. DAN 133 Advanced Beginning Ballet III

From: DAN ~~433~~ Advanced Beginning Ballet III
Hours and Credits: ~~1 credit 2 hours~~
Pre-requisite: ~~DAN 132~~ or permission of instructor

To: DAN 137 Advanced Beginning Ballet III
Hours and Credits: 2 credits 4 hours
Pre-requisite: DAN 136 or Permission of instructor

Rationale for changes to Beginning and Advanced Beginning Ballet and Modern dance:

- These classes will all go from meeting two hours a week to meeting four hours a week and from 1 credit to 2 credits.
- Four hours of class time a week will better prepare students for the technical demands of 4-year college programs and for professional careers in dance.
- Four hours of class time a week will make these classes more transferable for credit in 4-year colleges when our students transfer and thus will strengthen our program's ability to set up articulation agreements.
- Two credit hours and four hours of studio time a week will also bring the curriculum into compliance with NASD standards for accreditation.
- Because these courses are increasing in hours there are extensive changes to the syllabi. There will be a greater breadth of content covered and the resulting level of proficiency demanded of the students will be higher.
- Because of the above changes we are changing the course numbers for these classes. This will decrease confusion for advisors when looking at student records.

11. DAN 250 Modern Dance Improvisation

From: DAN ~~250~~ Modern Dance Improvisation
Hours and Credits: ~~1 credit 2 hours~~
Pre-requisite: ~~DAN 123~~ or permission of instructor

To: DAN 249 Modern Dance Improvisation
Hours and Credits: 2 credits 4 hours
Pre-requisite: Permission of instructor

Rationale for changes to Modern Dance Improvisation:

- This class will go from meeting two hours a week to meeting four hours a week and from 1 credit to 2 credits. Four hours of class time a week will better prepare students for the skill level expected at 4-year college programs and for professional careers in dance.
- Four hours of class time a week will make this class more transferable for credit in 4-year colleges when our students transfer and thus will strengthen our program's ability to set up articulation agreements.
- Because this course is increasing in hours there are changes to the syllabus. There will be a greater breadth of content covered and the resulting level of proficiency demanded of the students will be higher.
- Because of the above changes we are changing the course number for this class. This will decrease confusion for advisors when looking at student records.

12. DAN 251 Theory and Practice of Modern Dance

From:
DAN 251 ~~Theory and Practice of Modern Dance~~
Hours and Credits: 1 class hour, 2 studio hours, 2 credits
Pre-requisite: ~~DAN 250~~ or permission of the ~~department~~

Description: A survey of modern dance through an understanding of movement techniques, elements of space, rhythm, and dynamics; compositional and design forms; and historical contributions. Teaching techniques with an analysis of accompaniment.

To:
DAN 251 Choreography I
Hours and Credits: 1 class hour, 2 studio hours, 2 credits
Pre-requisite: DAN 249 or permission of the instructor

Description: In Choreography I students will explore the process of creating dance based on the elements of dance - time, space and energy/movement quality. Improvisation will be used as a method of creating movement material. Choreographic devices and compositional structures will be explored. Students will be encouraged to develop their own creative voices, and to critically evaluate their own and their classmates' works.

Rationale for change of Theory and Practice to Choreography I: Students will now be required to take Modern Dance Improvisation before this course, so they are entering this course with a strong background in exploring the elements of dance and are ready for a class that truly explores the dance composition process. Choreography I is a course that is taught in 4-year dance programs, so this course will be transferable for our students and will strengthen our program's ability to set up articulation agreements.

Department of Music

1. MU-381, 382 Class Instruction in Percussion I, II

From: MU-381, 382 Class Instruction in Percussion I, II
2 studio hours 1 credit each course Offered as needed
Co-requisite: ~~MU 208, MU 209, or satisfactory score on the Music Placement Test~~

To: MU-381, 382 Class Instruction in Percussion I, II
2 studio hours 1 credit each course Offered as needed

Rationale: MU-208 and 209 are not necessary for percussion classes. This revision will accommodate students interested in taking the course who are not enrolled in the co-requisite courses, or who do not need the co-requisite course for their degree program. The revision will also accommodate students who have not received a satisfactory score on the Music Placement Test, but are interested in learning percussion. This change will improve enrollment numbers for the course without being detrimental to the course content or to students' success in the course, and it will open it to the wider college community.

2. MU-451, 452, 453, 454 Instrumental and Vocal Ensemble

From: MU-451, 452, 453, 454 Instrumental and Vocal Ensemble

2 studio hours 1 credit each course Offered as needed

Comprises a variety of small instrumental and/or vocal ensembles. Students rehearse and perform music selected from classical, Gospel, Broadway, pop, jazz and contemporary styles.

To: MU-451, 452, 453, 454 Instrumental and Vocal Ensemble

3 studio hours 1 credit each course Offered as needed

Comprises a variety of small instrumental and/or vocal ensembles. Students study, rehearse and perform music selected from classical, Gospel, Broadway, pop, jazz and contemporary styles.

Rationale: The amount of time necessary to properly rehearse and coach the number of groups who are enrolled in the course is much too insufficient as it is currently structured. Due to high enrollment numbers (which obviously produces a large number of chamber groups) a longer class meeting time is needed, so that the instructor is able to devote sufficient quality instructional time to each group. With the current structure of two studio hours, groups are not adequately prepared to reach performance-level proficiency, forcing the instructor in the past several years to extend his or her class time beyond that for which he or she is given credit on a teaching assignment.

3. MU-471, 472, 473, 474 Percussion Ensemble

From: MU-471, 472, 473, 474 Percussion Ensemble

2 studio hours 1 credit each course

Study, rehearsal and performance of classical, contemporary and world percussion ensemble repertoire.

To: MU-471, 472, 473, 474 Percussion Ensemble

3 studio hours 1 credit each course

Study, rehearsal and performance of classical, contemporary and world percussion ensemble repertoire.

Rationale: In order to cover a diverse range of percussion ensemble repertoire, this course requires the instructor to direct students in the setup and teardown of multiple arrangements of percussion instruments at the start, during, and end of each class meeting. As a result, the instructional time available for rehearsal of repertoire and performance preparation is greatly reduced. The addition of one more studio hour to this course will accommodate the time needed to assist students in the setup and teardown process, while allowing the other two studio hours to be fully utilized for instruction, rehearsal, and preparation for performances.

Department of Social Sciences

ECON101-Introduction to Macroeconomics

From: ECON-101: Introduction to Macroeconomics

~~A study of factors determining national output, income, employment, and prices; the impact of government spending, taxation, and monetary policy; the banking system; economic growth; international trade.~~

To: ECON-101: Introduction to Macroeconomics

This course presents the fundamentals of Economics with a focus on the behavior of the aggregate economy. Major topics include national income accounting, economic growth, business cycles, unemployment, inflation, aggregate demand and supply, and macroeconomic equilibrium of income and expenditures. The course also covers fiscal and monetary policy, and issues in international trade and finance.

From: ECON-102-Introduction to Microeconomics

~~A study of the determination of prices and the distribution of income under various market conditions; government intervention in the market; a comparison of different types of economic systems.~~

To: ECON-102 Introduction to Microeconomics

This course presents the fundamentals of Economics with a focus on the behaviors of consumers and producers, and government regulations that affect the dynamic interaction between buyers and sellers in an economy. Major topics include consumer choice theory, production, and profit maximization of firms operating under various market structures, such as Perfect Competition, Monopolistic Competition, Oligopoly and Monopoly. The course also covers the labor market and wage determination under varying market conditions.

Rationale: The revisions are necessary in order to provide more accurate and updated descriptions of the courses to reflect the actual content covered in the classes. The previous course descriptions were more than 20 years old and significantly dated.

2. CHANGES IN PROGRAMS

Department of Art and Design

A.A.S., Digital Art and Design

Rationale: The Art and Design Department proposes to change the current AAS degree in Digital Art and Design to an AS in Digital Art and Design, bringing it in line with the other degrees offered by the Department. The majority of our DAD graduates currently transfer to 4-year schools, and as we seek NASAD accreditation, we want to ensure that our students have an educational and career path that matches the expectations of the graphic design industry.

When this degree was implemented as a two-year degree it would have prepared our students for access to jobs in industry; this is no longer true. The accelerated pace of innovation and new software makes more training both in technology and design in the form of a four-year degree the expectation in the marketplace. Over the last 5 years, an average of 55.3% of our DAD graduates have transferred. For an A.A.S. degree this is a high number and points to the desire of our graduates to pursue a 4-year degree. If our degree becomes a transfer degree and we could therefore create articulation agreements with local colleges, our students would clearly be better served in their educational goals.

The Department is currently in the process of seeking Accreditation from NASAD, the National Association of Schools of Art and Design. We have our site visit planned for Spring 2016. Under their requirements, AS and AAS programs fall under different categories. Our application would be clarified and our goal of preparing all of our students for further study in the Visual Arts would be served by having all of our degree programs meet the AS requirements.

Therefore, the Art & Design Department views a switch to an AS degree as the solution to give our students the degree that they want, while helping them to attain the educational and career success that they have come to QCC seeking.

From: AAS Digital Art and Design

	Credits
EN 101 English Composition I	3
EN 102 English Composition II	3
MA 321 Math in Contemporary Society	3
CH 106 Chemistry in the Arts	4
Social Science	3
Choose HI 100 Series	3
Humanities elective	3
General Education Subtotal	22

ARTS 121 Two Dimensional Design	3
ARTS 122 Three Dimensional Design	3
ARTS 221 Color Theory or	
ARTS 151 Drawing	3
Art History choose one: ARTH 100, 101, 115, 116, 117 or 120	3
(Moved to Flexible Core II. C)	
ARTH 225 History of Graphic Design	3
(Moved to Flexible Core II. C)	
ARTS 141 Intro to Photography	3
ARTS 291 Electronic Imaging	3
ARTS 290 Advertising and Design Layout	3
ARTS 192 Web Animation	3
ARTS 292 Design for Desktop Publishing	3
ARTS 293 Design for Motion Graphics	3
ET 710 Web Technology: Building and Maintaining Web Sites	4
Subtotal	37
Free Electives	1
(Strongly Recommended: Portfolio independent study ARTS 390)	
Subtotal	1
Total Credits Required	60

To: AS Digital Art and Design

<u>Required Core I. A EN 101 English Composition I</u>	<u>3</u>
<u>Required Core I. A EN 102 English Composition II</u>	<u>3</u>
<u>Required Core I. B (recommended: MA 321 Math in Contemporary Society)</u>	<u>3</u>
<u>Required Core I. C (recommended: CH 106 Chemistry in the Arts)</u>	<u>3-4</u>
<u>Flexible Core II. A</u>	<u>3</u>
<u>Flexible Core II. B</u>	<u>3</u>
<u>Flexible Core II. C (recommended: ARTH 100, 101, 115, 116, 117 or 120)</u>	<u>3</u>
<u>Flexible Core II. D</u>	<u>3</u>
<u>Flexible Core II. E</u>	<u>3</u>
<u>Flexible Core II. A, B, C, D or E (recommended: ARTH 225)</u>	<u>3</u>

General Education Subtotal 30-31

Major Requirements:

<u>ARTS 121 Two Dimensional Design or</u>	
<u>ARTS 122 Three Dimensional Design</u>	<u>3</u>
ARTS 221 Color Theory or	
ARTS 151 Drawing	3
ARTS 141 Intro to Photography	3
ARTS 291 Electronic Imaging	3
ARTS 290 Advertising and Design Layout	3
ARTS 292 Design for Desktop Publishing	3
ARTS 293 Design for Motion Graphics	3
ARTS 192 Web Animation	3
ET 710 Web Technology: Building and Maintaining Web Sites	4

Additional major requirements:
Laboratory Science
(required if student does not take

Subtotal 28-29

Major Electives (Strongly Recommended:
Portfolio independent study ARTS 390) 1

Subtotal 1

Total Credits Required 60

Department of Biological Sciences and Geology

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

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.

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

2. AS/BS QCC/York Dual/Joint Biotechnology Degree Program

Rationale: York College will no longer accept BI 461 (General Microbiology) from QCC transfer students, who must complete it at York. To adjust the number of credits in the major, we now require BI 554 (Research Laboratory Internship), which was previously an elective course. The conversion of BI 554 to a required course also responds to the students' increase demand for research internship experience.

FROM:

Common Core	Credits
REQUIRED CORE: I. A: English Composition I, II (Take EN 101 & 102)	6
REQUIRED CORE: I. B: Mathematical & Quantitative Reasoning (Required: MA 441)*	4
REQUIRED CORE: I. C: Life & Physical Sciences (Required: BI 201)*	4
FLEXIBLE CORE: II. A: World Cultures & Global Issues (Select one course)	3
FLEXIBLE CORE: II. B: U.S. Experience in Its Diversity (Select one course)	3
FLEXIBLE CORE: II. C: Creative Expression (Select one course)	3
FLEXIBLE CORE: II. D: Individual & Society (Select one course)	3
FLEXIBLE CORE: II. E: Scientific World (Required: CH 151)*	4.5
FLEXIBLE CORE: II: A, B, C, D or E (Required: CH 152)*	4.5
Subtotal	35
Major	
BI 202 General Biology II	4
BI 453 Biotechnology	5
BI 356 Principles of Genetics	4
BI 357 Bioinformatics/Computational Biology or BI 461 General Microbiology	3-4
Subtotal	16-17
Additional Major Requirements	

HE 102 Health, Behavior and Society <i>and</i> one course from PE 400 series	3
SP 211 Speech Communication	3
Subtotal	6
Elective(s)	
Free electives	2-3
BI 554 Research Laboratory Internship (optional)	(2)
Total	60

TO:

Course to Course Equivalencies and Transfer Credit Awarded	Credits
Common Core Queensborough	
REQUIRED CORE: I. A: English Composition I, II (Take EN 101 & 102)	6
REQUIRED CORE: I. B: Mathematical & Quantitative Reasoning (Required: MA 441)*	4
REQUIRED CORE: I. C: Life & Physical Sciences (Required: BI 201)*	4
FLEXIBLE CORE: II. A: World Cultures & Global Issues (Select one course)	3
FLEXIBLE CORE: II. B: U.S. Experience in Its Diversity (Select one course)	3
FLEXIBLE CORE: II. C: Creative Expression (Select one course)	3
FLEXIBLE CORE: II. D: Individual & Society (Select one course)	3
FLEXIBLE CORE: II. E: Scientific World (Required: CH 151)*	4.5
FLEXIBLE CORE: II: A, B, C, D or E (Required: CH 152)*	4.5
Subtotal	35
Major	
BI 202 General Biology II	4
BI 453 Biotechnology	5
BI 356 Principles of Genetics	4
BI 357 Bioinformatics/Computational Biology	3
BI 554 Research Laboratory Internship	2
Subtotal	18
Additional Major Requirements	
HE 102 Health, Behavior and Society <i>and</i> one course from PE 400 series or PE 500 series	3
SP 211 Speech Communication	3
Subtotal	6
Elective(s)	
Free elective	1
Subtotal	1
Total	60
*Students are required to take particular courses in some areas of the Common Core that fulfill both general education and major requirements. If students do not take the required courses in the Common Core, they will have to take additional credits to complete their degree requirements. All students must complete two (2) WI designated classes to fulfill degree requirements.	

3. Environmental Health Program

Rationale: The proposed program revision will expand on the current Environmental Health program to offer an additional concentration in Environmental Science. With the proposed changes, QCC students will be offered the opportunity to obtain an A.S. degree in Environmental Health/Science, with a concentration in either Environmental Health or Environmental Science. This program revision was suggested in the 2010-2011 Academic Program Review of Environmental Health.

(http://www.qcc.cuny.edu/pv_obj_cache/pv_obj_id_359919891C1C18A202FAA1D1810AFDFCADCC0100/filename/Environmental_Health_Report-Web_Site_Version.pdf) as a way of increasing enrollment and retention by increasing transfer and job opportunities. The addition of an environmental science track should increase the number of students who graduate and obtain careers in both of these growing fields. Because a B.S. degree is essential for most types of employment in this field, articulations with York College, Queens College, Lehman College, and Molloy College are close to being completed. Articulations with senior colleges will allow students that complete the A.S. degree at QCC to transfer to a 4-year college. Additional colleges within CUNY will also be contacted to give students more options for seamless transfer to a 4-year school.

From: Environmental Health

To: Environmental Health/Science

From:

REQUIREMENTS FOR A.S. DEGREE (Environmental Health)

GENERAL EDUCATION CORE REQUIREMENTS		Credits
EN-101, 102	English Composition I, II.....	6
BI-201	General Biology I	4
CH-151,152	General Chemistry I, II	9
MA-440	Pre-Calculus Mathematics	4
PH-301, 302	College Physics I, II	8
PSYC-101	Psychology.....	3
	Humanities elective.....	3
HI 110, 111, or 112	History	3

Sub-total 40

PREREQUISITES AND COREQUISITES FOR THE MAJOR

BI-202	General Biology II.....	4
BI-311	Principles of Microbiology	4

Sub-total 8

REQUIREMENTS FOR THE MAJOR

BI-501	Environmental Health Science.....	4
BI-505	The Environmental Health Professional	1
BI-520	Public Health Science.....	4

Sub-total 9

ELECTIVES

_____	Advised electives	3
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Total Credits Required60

To:

Common Core (for both Environmental Health and Environmental Science tracks)

	Credits
REQUIRED CORE: I. A: English Composition I, II (Take EN 101 & 102)	6
REQUIRED CORE: I. B: Mathematical & Quantitative Reasoning (Required: MA 440)	4
REQUIRED CORE: I. C: Life & Physical Sciences (Required: BI 201)	4
FLEXIBLE CORE: II. A: World Cultures & Global Issues	3
FLEXIBLE CORE: II. B: U.S. Experience in Its Diversity (Select one course)	3
FLEXIBLE CORE: II. C: Creative Expression (Select one course)	3
FLEXIBLE CORE: II. D: Individual & Society (Select one course)	3
FLEXIBLE CORE: II. E: Scientific World (Required: CH 151)	4.5
FLEXIBLE CORE: II: A, B, C, D or E (Required: CH 152)	4.5

Subtotal	35
Major Requirement	
BI-202 General Biology II	4
Subtotal	4

Requirements

Track 1: For EH Major only		Track 2: For ES major only	
BI-501 Environmental Health	4	BI 480 Environmental Science	4
BI- 520 Public Health Science	4	BI -160 Ecology	4
BI-311 Principles of Microbiology	4	BI- 461 General Microbiology	4
BI 505 The Environmental Health Professional	1	GE-101 Physical Geology	4

Subtotal	13	Subtotal	16
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Advised electives	Track 1 EH	8	Track 2 ES	5
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Total Credits Required	Track 1 EH	60	Track 2 ES	60
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Advised Electives may include:

For Track 1: Environmental Health	Credits	For Track 2: Environmental Science	Credits
BI-554 Research Laboratory Internship	2	BI-554 Research Laboratory Internship	2
CH-110/111 Chemistry and the Environment/lab	4	CH-110/111 Chemistry and the Environment/lab	4
HE-110 Cardiopulmonary Resuscitation	1	ET-841 Science of Energy and Power	3
MA-336 Computer-Assisted Statistics	3	ET-842 Energy Production and Conservation	1
MA-441 Analytic Geometry and Calculus	4	ET-843 The Role of Energy in Society	3
PH-301, 302 General Physics I, II	8	GE-102 Historical Geology	4
		HE-110 Cardiopulmonary Resuscitation	1
		MA-336 Computer-Assisted Statistics	3
		MA-441 Analytic Geometry and Calculus	4
		PH-120/121 Introduction to Meteorology/lab	4
		PH-124 Global Warming	3
		PH-301 General Physics I	4

Department of Business

1. A.A.S., Computer Information Systems (CIS)

General rationale:

The existing program offered two CIS majors (Microcomputer Applications Software, and Computer Programming). The proposed program is a single major of Computer Information Systems. Creating a single track for CIS majors enables a more extensive set of required core courses which will better prepare our students for employment and/or college transfer. The revisions to existing courses reflect changes to technology and industry directions. A new course CIS102 will replace BU502. A new course CIS 251 will replace BU 504 and BU 509. All the Computer Information Systems courses have been given a new prefix: CIS.

(See revised and new courses for this program under CHANGES IN COURSES and NEW COURSES).

FROM:

Course no.	Course title	Common core category	Credits
	General education core requirements		

EN-101	English Composition I	I.A	3
EN-102	English Composition II	I.A	3
MA-260 or MA-321 or MA-128	Pre-calculus & Elements of Calculus for Bus. Students Mathematics in Contemporary Society Calculus for Technical and Business Students	I.B	4
	Humanities elective	II.A-D	3
	Laboratory science	I.C	4
ECON-101 or ECON- 102	Introduction to Macroeconomics Introduction to Microeconomics	I.D	3
	Social Sciences or History elective (HI-100 series)	IIA, B, D or E	3
Subtotal			22-23
Requirements for the major			
BU-101	Principles of Accounting I	NA	4
BU-201	Business Organization and Management	NA	3
BU-203	Principles of Statistics	NA	3
BU-500	Introduction to Microcomputer Applications	NA	3
BU-509	Projects in Data Processing	NA	3
BU-520	Introduction to Computer Programming for Business	NA	3
Subtotal			19
Track A	Computer Programming		
BU-502	COBOL Programming	NA	3
BU-504	Systems Analysis and Design with Business Applications	NA	3
BU-524	Business Programming with Objects	NA	4
BU-522	Business Programming with Visual Languages	NA	3
BU-529	Application Programming for Mobile Devices	NA	3
BU-532	Microcomputer Operating Systems and Utility Software	NA	3
	Business elective	NA	2-3
Subtotal			18-19
Track B	Microcomputer Applications Software		
BU-508	Database Management Systems	NA	3
BU-530	Spreadsheet Applications	NA	3
BU-532	Microcomputer Operating Systems and Utility Software	NA	3
BU-537	Data Security for Business	NA	3
BU-534	Local Area Network Management	NA	3
BU-859	Desktop Publishing (Software)	NA	3
	Business elective	NA	3-4
Subtotal			18-19
Total credits required			60

TO:

Course no.	Course title	Common core category	Credits
General education core requirements			
EN-101	English Composition I	I.A	3
EN-102	English Composition II	I.A	3
MA-260 or MA-321 or MA-128*	Pre-calculus & Elements of Calculus for Bus. Students Mathematics in Contemporary Society Calculus for Technical and Business Students	I.B	3-4
	Humanities elective	II.A-D	3
	Laboratory science	I.C	4
ECON-101 or ECON- 102	Introduction to Macroeconomics Introduction to Microeconomics	I.D	3
	Social Sciences or History elective (HI-100 series)	II A, B, D or E	3
Subtotal			22-23
Requirements for the major			

BU-101	Principles of Accounting I	4
BU-201	Business Organization and Management	3
BU-203	Principles of Statistics	3
CIS-101	Introduction to Microcomputer Applications	3
CIS-102	Computer Programming Fundamentals for Business	3
CIS-152	Computer Programming for Business I	3
CIS-153	Microcomputer Operating Systems & Utility Software	3
CIS-201	Local Area Network Management	3
CIS-208	Database Management Systems	3
CIS-251	Analysis and Design of Systems Projects	3
Subtotal		31
Electives (Select 6 to 8 Credits)		
CIS-202	Computer Programming for Business II	3
CIS-203	Object Oriented Programming for Business	3
CIS-204	Web Design	3
CIS-205	Introduction to Information Systems Management	3
CIS-206	Spreadsheet Business Applications	3
CIS-252	Application Development for Mobile Devices	3
CIS-254	Data Security for Business	3
	Free Elective	0-1
Subtotal		6-7
Total credits required		60

* Students intending to transfer to complete a Bachelor's degree should consult with advisor to take either MA-260 or MA-128

Summary of Prerequisites and Co-Requisites based on new numbering system

1. CIS Required Courses

New Course Number	Prerequisite(s)
CIS 101	
CIS 102	
CIS 152	CIS 102
CIS 153	CIS 101
CIS 201	CIS 153
CIS 208	CIS 101
CIS 251	CIS 208 and CIS 152

2. CIS Elective Courses

New Course Number	Prerequisite(s): MA-010 or satisfactory score on the Mathematics Placement AND
CIS 202	CIS 152
CIS 203	CIS 152
CIS 204	CIS 153
CIS 205	CIS 101*
CIS 206	CIS 101
CIS 252	CIS 202 or CIS 203
CIS 254	CIS 201

* Prerequisite applies only to CIS students

TABLE SHOWING NEW CURRICULUM AND OLD COURSE NUMBERS

Revised program	Old course numbers
Requirements for the major	

BU-101	Principles of Accounting I	
BU-201	Business Organization and Management	
BU-203	Principles of Statistics	
CIS 101	Introduction to Microcomputer Applications	BU-500
CIS 102	Computer Programming Fundamentals for Business	BU-502
CIS 152	Computer Programming for Business I	BU-520
CIS 153	Microcomputer Operating Systems & Utility Software	BU-532
CIS 201	Local Area Network Management	BU-534
CIS 208	Database Management Systems	BU-508
CIS 251	Analysis and Design of Systems Projects	BU-504
Electives		
CIS 202	Computer Programming for Business II	BU-522
CIS 203	Object Oriented Programming for Business	BU-521
CIS 204	Web Design	BU-524
CIS 205	Introduction to Information Systems Management	BU-512
CIS 206	Spreadsheet Business Applications	BU-530
CIS 252	Application Development for Mobile Devices	BU-529
CIS 254	Data Security for Business	BU-537
	Free Elective	

2. QCC/John Jay – Dual/Joint Degree Program A.S. in Accounting for Forensic Accounting (QCC) Leading to the B.S. in Economics: Forensic Financial Analysis (John Jay College of Criminal Justice)

General rationale: Several course changes are proposed in order to conform with the course changes that have already been instituted by John Jay College. The new degree program at John Jay College was approved by the UCASC in the Spring of 2014 and will be launched in the Fall of 2015.

The name of the degree program at John Jay changes from “B.S. in Economics” to “B.S. in Fraud Examination and Financial Forensics”.

Requirements for the Major:

The addition of BU-104, Intermediate Accounting I and the requirement of BU-111, Computer Applications in Accounting, are needed to align with required courses in the major at John Jay. (John Jay College added three new courses in accounting to the curriculum.)

CIS-101, Introduction to Microcomputer Applications has been added to the requirements for the major because it is a prerequisite for BU-111, Computer Applications in Accounting.

General Education Core Requirements:

The recommendations of SP-211, Speech Communication, in category IIB, PHIL-130, Ethics: Theories of the Good Life, in category IID and SOCY-101, Sociology, in the Flexible II category will now align with requirements for the major at John Jay.

MA 128, Calculus for Technical and Business Students, and MA-260, Pre-Calculus and Elements of Calculus for Business, are added. MA-128 and 260 were included in the original articulation but were not included when the program was reconfigured for CUNY Pathways.

From:

A.S., Accounting for Forensic Accounting, Dual/Joint Degree Program, QCC/John Jay [leading to the B.S. in Economics: Forensic Financial Analysis]

General Education Core Requirements Credits

IA, EN-101 English Composition I	3
IA, EN-102 English Composition II.....	3
IB, MA-440 Pre-Calculus Mathematics.....	4
IC, Life & Physical Sciences (STEM) Laboratory Science.....	4
IIA, World Cultures & Global Issues.....	3
IIB, U.S. Experience in Its Diversity ..Recommended: [PLSC-101].....	3
IIC, Creative Expression.....	3

IIE, Scientific World.....	3
Flexible II: A, B, C, D or E.....	3
	Subtotal ...32
Requirements for the Major	
BU-101 Principles of Accounting I	4
BU-102 Principles of Accounting II	4
BU-103 Intermediate Accounting I	4
CRIM-101 Introduction to the American Criminal Justice System.....	3
BU-108 Income Taxation or BU-111 Computer Applications in Accounting.....	3
BU-203 Principles of Statistics.....	3
ECON-101 or ECON-102 Introduction to Macroeconomics/Microeconomics.....	3
SP-211 Speech Communication.....	3
	Subtotal.....27
Free electives	1
	Total.....60

To:

A.S., Accounting for Forensic Accounting, Dual/Joint Degree Program, QCC/John Jay
Leading to the B.S. in Fraud Examination and Financial Forensics at John Jay College
of Criminal Justice

General Education Core Requirements Credits

IA, EN-101 English Composition I	3
IA, EN-102 English Composition II.....	3
IB, <u>MA 128 Calculus for Technical and Business Students or</u> <u>MA-260 Pre-Calculus and Elements of Calculus for Business or</u> MA-440 Pre-Calculus Mathematics.....	4
IC, Life & Physical Sciences (STEM) Laboratory Science.....	4
IIA, World Cultures & Global Issues.....	3
IIB, U.S. Experience in Its Diversity .. <u>Recommended: SP-211.....</u>	3
IIC, Creative Expression.....	3
IID, Individual & Society.. <u>Recommended: PHIL-130.....</u>	3
IIE, Scientific World.....	3
Flexible II: A, B, C, D or E..... <u>Recommended: SOCY-101.....</u>	3
	Subtotal.....32

Requirements for the Major

BU-101 Principles of Accounting I.....	4
BU-102 Principles of Accounting II.....	4
BU-103 Intermediate Accounting I.....	4
<u>BU-104 Intermediate Accounting II.....</u>	<u>3</u>
<u>BU-111 Computer Applications in Accounting.....</u>	<u>3</u>
BU-203 Principals of Statistics.....	3
ECON-101 or ECON-102...Introduction to Macroeconomics/Microeconomics.....	3
CIS-101 Introduction to Microcomputer Applications.....	3
	Subtotal27
Free electives.....	1
	Total60

Department of Engineering Technology

1. Internet Technology

From: Internet Technology – A.A.S. Degree Program

To: Internet and Information Technology – A.A.S. Degree Program

From:

COMMON CORE REQUIREMENTS

CREDITS

REQUIRED CORE 1A:	EN-103 Writing for the New Media.....	3
	EN-102 English Composition II.....	3
REQUIRED CORE 1B:	MA-301 Foundations of Mathematics.....	3
REQUIRED CORE 1C:	Laboratory Science (STEM Variant).....	4
FLEXIBLE CORE 2A, B, D, or E:	Social Science or History courses.....	6
FLEXIBLE CORE 2A, B, C or D:	Humanities elective (select one additional course) ...	3

Sub-total 22

To:

COMMON CORE REQUIREMENTS	CREDITS	
REQUIRED CORE 1A:	EN-103 Writing for the New Media.....	3
	EN-102 English Composition II.....	3
REQUIRED CORE 1B:	<u>MA-321 Mathematics in Contemporary Society.....</u>	<u>3</u>
REQUIRED CORE 1C:	<u>Life & Physical Sciences (select from 1C).....</u>	<u>3-4</u>
FLEXIBLE CORE 2A, B, D, or E:	Social Science or History courses ¹	6
FLEXIBLE CORE 2A, B, C or D:	Humanities elective (select one additional course) ...	3

Sub-total 21-22

ADDITIONAL MAJOR REQUIREMENTS

Laboratory Science² BI-132, BI-171, CH-102, CH-111,
CH-121, ET-842 OR PH-112..... 0-1

¹*ECON-101 and ECON-102 are highly recommended as flexible core electives*

²*STEM Variant in Required Core 1C satisfies laboratory science elective requirement.*

Rationale:

MA301 is proposed to be replaced by MA321. This change was discussed with members of the Math Department and will serve to slightly raise the academic rigor of the program. MA321 is a more appropriate requirement for the now more technically oriented focus of the curriculum. MA321 has more statistics, introduces functions and also has an Excel lab where students can apply their Excel skills to be able to solve problems relating to the course. MA301 is a more basic class.

The required core 1C is proposed to be expanded to include all courses designated in 1C as opposed to solely STEM variant courses. This provides students with a broader choice of courses to choose from. Total science credits will still total 4. This follows the example of other approved AAS curricula such as Management and Office Administration and Technology.

Footnote 1 - For the common core recommended electives: Industrial advisors have confirmed the need for ECON-101 and ECON-102 as suggested Social Science/History electives.

From:

REQUIREMENTS FOR THE MAJOR	
ET-504 Operating Systems and System Deployment	2
ET-704 Networking Fundamentals I	4
ET-710 Web Technology I: Building and Maintaining Web Sites	4
ET-712 Web Client Programming: JavaScript	3
ET-718 Database Technology	3
ARTS-121 Two Dimensional Design.....	3
ARTS-291 Electronic Imaging.....	2

Sub-total 24

To:

REQUIREMENTS FOR THE MAJOR	
ET-504 Operating Systems and System Deployment	2
<u>ET-575 Introduction to C++ Programming Design and Implementation.....</u>	<u>2</u>

ET-704 Networking Fundamentals I	4
ET-705 Networking Fundamentals II	4
ET-710 Web Technology I: Building and Maintaining Web Sites	4
ET-712 Web Client Programming: JavaScript	3
ET-716 Java Programming Technology	4
ET-718 Database Technology	3
ET-720 Advanced Web and Multimedia Programming Applications	1
ET-725 Computer Network Security	3

Sub-total 31

Rationale:

Internet and Information Technology has become a more defined and technically oriented field. Art concepts are either included in technology courses or no longer as necessary in the field. Both the Engineering Technology and the Art and Design Department agree to this change. Programming skills have become more increasingly important (ET-575, ET-716, ET-720) and cloud and mobile technologies (ET-705) are now essential as well as security (ET-725).

From:

ELECTIVES**

Select 17 credits from the following:

ET-375 Introduction to Robotics	4
ET-481 Personal Computer Technology, Architecture, and Troubleshooting	2
ET-505 Introduction to 'C++' Object Oriented Programming	4
ET-506 Introduction to UNIX (LINUX)	4
ET-507 Advanced 'C++' Object Oriented Programming	4
ET-510 Introduction to Digital Electronics	4
ET-570 Creating Smartphone Apps	3
ET-575 Introduction to C++ Programming Design and Implementation	3
ET-705 Networking Fundamentals II	4
ET-706 Network Configuration I (Cisco CCNA 3)	4
ET-707 Network Configuration II (Cisco CCNA 4)	4
ET-714 Web Technologies II: Building Database-Driven Web Sites	4
ET-716 Java Programming Technology	4
ET-720 Advanced Web and Multimedia Programming Applications	1
ET-725 Computer Network Security	3
ET-728 Web Tech: XML	4
ET-841 The Science of Energy and Power in the Modern World	3
ET-842 Energy Production and Conservation for a Sustainable World	1
ET-991 Cooperative Education	1
ET-992 Cooperative Education	1
ARTS-192§ Web Animation	3

Sub-total 17

** The following New Media Technology] electives are highly recommended: AR-642, ET-714, ET-716, ET-718, ET-720,

To:

ELECTIVES

Select 7 credits from the following:

ET-375	Introduction to Robotics	4
ET-481	Personal Computer Technology, Architecture, and Troubleshooting	2
ET-506	Introduction to UNIX (LINUX)	4
ET-510	Introduction to Digital Electronics	4
ET-570 ²	Creating Smartphone Apps Design and Implementation	3
ET-714-	Web Technologies II: Building Database- Driven Web Sites	4
ET-728 ²	Web Tech: XML	4
ET-991	Cooperative Education	1
ET-992	Cooperative Education	1

Sub-total 7² Highly recommended elective

Rational: ET-841 combined with ET-842 is dropped from the list of electives for the major because the combination is considered a 1C lab science. ET-505 (Introduction to C++ Object Oriented Programming), 4 credits, is removed from the list of electives and is replaced with the required course ET-575 (Introduction to C++ Programming Design and Implementation). ET-507 (Advanced C++ Object Oriented Programming), 4 credits, is also removed from the list of electives as it is designed to follow ET-505. ET-706 and ET-707 are removed because they are no longer offered. Recommended program electives are specified by footnote 2. This specification is removed from ET-575, ET-705, ET-716, ET-720 and ET-725 because they are proposed as required courses for the major. Specification removed from ET-714 because it shares some of the important topics in ET-716. ET-716 is now to be a required course it is suggested that most students would likely benefit from broader choice of electives, unless they wish to specifically specialize in database technologies. Specification added to ET-570, Smartphone Apps because of the importance of mobile technologies. Specification added to ET-728, XML, addresses the essential topic of e-commerce.

2. Computerized Architectural & Industrial Design, A.A.S.

General rationale: The current Computerized Architectural & Industrial Design program was designed in the early 1980's when personal computers were a relatively new phenomena and the task of drafting still comprised a significant portion of the workforce. Since that time, the landscape of the Architectural workplace has changed significantly. Computers have not only become ubiquitous, but are also accompanied by a variety of specialized application software that is highly mature. Further, the workforce has consolidated such that a particular individual will no longer be solely a drafter. Workers are now tasked with an increasing amount of design work, while still being required to perform drafting duties. We have also identified an up-and-coming niche in the workforce, that of Construction Management. This discipline, which offers a significant number of jobs in the tri-state area, shares many common theoretical foundations with traditional Architecture programs.

To that end, we are proposing a significant revision to the Computerized Architectural & Industrial Design program in order to bring the curriculum in line with the current needs of industry. The program will be renamed *Architectural Technology*. This will place the program within the family of programs offered by the Engineering Technology department. It also corrects an inaccuracy, since there are no industrial design courses in the current curriculum. The program will be split into two tracks. Both tracks will share a common core of classes.

The first track is a specialization in *Architectural Design*. This track is a modernization of the current architectural program. The loyalty to either manual or computerized methods of drafting is being abandoned in favor of a modern, integrated approach. The emphasis will be on design concepts, and students will use both manual and computerized skills to implement these ideas.

The second track is a specialization in *Construction Management*. This track, while building on the common core of classes, will offer students the opportunity to pursue careers in this up-and-coming niche in the workforce.

In conjunction with this program revision, we are taking steps to (i) revise and streamline our course numbering standards; and (ii) to more closely align our programs with those of New York City College of Technology and SUNY Farmingdale, in order to ensure a more efficient transfer process.

(See revised and new courses for this program under CHANGES IN COURSES and NEW COURSES).

~~Computerized Architectural & Industrial Design, A.A.S.~~

Architectural Design, A.A.S.

REQUIREMENTS FOR THE MAJOR

MT-111	Technical Graphics	2
MT-124	Metallurgy and Materials	3
MT-212	Technical Descriptive Geometry	3
MT-219	Surveying and Layouts	3
MT-341	Applied Mechanics	3
MT-345	Strength of Materials	3
MT-369	Computer Applications in Engineering Technology	3
MT-453	Piping Systems	3
MT-454	Fundamentals of HVAC Systems	2
MT-481	Architectural Design I	3
MT-482	Structural Drafting and Design	3
MT-484	Construction Methods	3
MT-488	Computer Aided Design I	3
MT-489	Computer Aided Design II	3
Sub-total		40
Total Credits Required		60

REQUIREMENTS FOR THE MAJOR – COMMON CORE

<u>TECH-100 Intro to Engineering & Technology (MT 100)</u>	<u>1</u>
<u>ARCH-125 Surveying & Site Planning (MT 219)</u>	<u>3</u>
<u>ARCH-119 Visualization I</u>	<u>2</u>
<u>ARCH-113 Building Technology I (MT 223)</u>	<u>3</u>
<u>ARCH-129 Visualization II</u>	<u>2</u>
<u>MT-341 Applied Mechanics</u>	<u>3</u>
<u>MT-345 Strength of Materials</u>	<u>3</u>
<u>ARCH-237 Environmental Systems (MT 453)</u>	<u>3</u>
<u>ARCH-123 Building Technology II (MT 484)</u>	<u>3</u>
Sub-total	23
<u>Track 1: Architectural Design</u>	
<u>ARCH-111 Architectural Design I (MT 481)</u>	<u>3</u>
<u>ARCH-248 Structures I (MT 482)</u>	<u>3</u>
<u>ARCH-121 Architectural Design II</u>	<u>4</u>
<u>ARCH-231 Architectural Design III (MT 485)</u>	<u>4</u>
<u>ARCH-241 Adv. Architectural Modeling (MT 490)</u>	<u>3</u>
Sub-total	17
<u>Track 2: Construction Management</u>	
<u>CONM-111 Construction Design</u>	<u>4</u>
<u>CONM-248 Soils, Foundations & Structures</u>	<u>3</u>
<u>MECH-246 Fluid Mechanics (MT 522)</u>	<u>3</u>
<u>MA-128 Calculus for Technical and Business Students</u>	<u>4</u>
<u>CONM-241 Construction Cost Analysis</u>	<u>3</u>
Sub-total	17
Total Credits Required	60

Health, Physical Education and Dance Department

Visual and Performing Arts, A.S. Degree Concentration in Dance

General rationale: Since the curricular changes in the dance program in 2012, Queensborough Community College's dance program has become much stronger in preparing students for professional careers in dance as well as for transferring to strong BFA dance programs. In May of 2014, our first class of students graduated under the new curriculum. Seven of our dance majors have transferred to BA or BFA programs in dance: three have transferred to Rutgers University on dance scholarships, two have transferred to Adelphi University on dance scholarships, one has transferred to Long Island University, Brooklyn, and one has transferred to Hunter College. These figures reveal more of our students transferring to strong dance programs than ever before. Furthermore, the dance program has continued to grow. We currently have approximately 50 dance students concentrating in dance in the VAPA degree program. This is up from approximately 20 dance majors in 2007 and 40 in 2011.

As a means of further strengthening our program, the department is pursuing accreditation with the National Association of Schools of Dance (NASD). In March 2014, the department hosted a NASD preliminary accreditation consultant, Nina Nelson, from Western Michigan University, whose report read: “Dance majors demonstrate maturity and skill beyond that which would be expected of students in their first two years of college.” In the meeting with the consultant, students unanimously agreed that their goals are to transfer to four-year institutions with dance programs. The consultant’s report further recommends that the dance program develop articulation agreements with four-year dance programs that our students are likely to transfer to. This is a process the department has already begun through discussions with dance program directors at LIU-Brooklyn, Rutgers University, Montclair State University, University of Illinois-Champaign Urbana, and Adelphi University. These agreements would insure that the dance courses our students take at Queensborough are accepted as meeting the degree requirements at these four-year institutions when they transfer.

The curricular changes in this proposal have this goal in mind. They make our courses comparable to the courses at these four-year dance programs in terms of number of hours of training and content covered. These changes will further provide more of our students with the level of dance training they need to transfer to these programs and ultimately to have professional careers in dance. While our last curricular revisions have allowed our more advanced students to progress much more quickly and to find incredible success in transferring to BFA programs on scholarship, these new curricular changes will also allow our students coming in with more technical challenges to progress to the same level.

(See revised and new courses for this program under *CHANGES IN COURSES* and *NEW COURSES*).

From:

Visual and Performing Arts – Associate in Science (A.S.) Degree Concentration in Dance

COMMON CORE REQUIREMENTS

REQUIRED CORE 1A: EN-101 English Composition I	3
EN-102 English Composition II	3
REQUIRED CORE 1B: Mathematical & Quantitative Reasoning (select one from 1B)	3
REQUIRED CORE 1C: Life and Physical Sciences (select one from 1C)	3
FLEXIBLE CORE 2A: World Cultures & Global Issues (select one from 2A)	3
FLEXIBLE CORE 2B: U.S. Experience & Its Diversity (select one from 2B)	3
FLEXIBLE CORE 2C ¹ : Creative Expression (select one from 2C ¹)	3
FLEXIBLE CORE 2D: Individual & Society (select one from 2D)	3
FLEXIBLE CORE 2E: Scientific World (select one from 2E)	3
FLEXIBLE CORE 2A, 2B, 2C, 2D or 2E: (select one course ²)	3
Sub-total	30

REQUIREMENTS FOR THE MAJOR

All students in the Visual and Performing Arts A.S. Degree Program must complete one of the concentrations: Art & Design, Art History, Dance, Music, or Theatre Arts (see details following pages) to complete the degree requirements.

Sub-total	21-23
ADDITIONAL MAJOR REQUIREMENTS	
SP-211 ³ Speech Communication ³	3
HE-101 Intro. to Health Education or	
HE-102 Health Behavior & Society	1-2
One course in PE-400 or PE-500 series or DAN-100 series	1
Laboratory Science ⁴ BI-132, BI-171, CH-102, CH-111, CH-121 ET-842, PH-112	0-1
Sub-total	5-7
ELECTIVES	
Free Electives	0-3
Sub-total	0-3

Total Credits Required 60

1 Recommended: select from area different from concentration (ARTH-100—ARTH-128 including ARTH-202 & ARTH-225, or DAN-111, or MU-110, or MU-120, or SP-471, or SP-472, or TH-111).

3 Students who have taken SP-211 in the Common Core are recommended to take a Foreign Language course; or HI-110, HI-11, HI-112; or a Social Sciences course.

4 Students who have taken a STEM Variant course in the Common Core 1C have fulfilled this requirement. All students must successfully complete two (2) writing-intensive classes (designated “WI”) to fulfill degree requirements. Sections of the following courses denoted as “WI” may be taken to partially satisfy the Writing Intensive Requirement: ARTH-100, ARTH-101, ARTH-120, ARTH-202; MU-110; SP-142, SP-433, SP-275, SP-434, TH-111, TH-120, TH-221, DAN-111, BI-140, BI-202, GE-101, GE-125, CH-101, CH-102, CH-110, CH-111; MA-301, MA-321; ECON-101, ECON-102, SOCY-101, SOCY-230, SOCY-275, PLSC-101, PLSC-180, PSYC-101, PSYC-220, PHIL-101, PHIL-130, PHIL-140; HI-110, HI-111, HI-112, HI-127, HI-128; LF-401, LG-401, LI-401, LS-402; HE-102; PH-110

Dance Concentration

Students must complete 21-23 credits from the following Courses		
DAN 100	Beginning Modern Dance	1 credit
DAN 101	Beginning Ballet	1 credit
DAN 102	Jazz Dance	1 credit
DAN 103	African/Afro-Caribbean Dance	1 credit
DAN 104	Musical Theater Dance	1 credit
DAN 105	Music Video Dance	1 credit
DAN 106	Latin Dance	1 credit
DAN 107	Social and Folk Dance	1 credit
DAN 110	Foundations of Dance Movement	3 credits
DAN 111	Introduction to the Art of Dance	3 credits
DAN 112	Dance in the Twentieth Century	3 credits
DAN 113	History of African Dance Forms	3 credits
DAN 114	Dance on Stage and Film	3 credits
DAN 120	Beginning Modern Dance for Majors	1 credit
DAN 121	Advanced Beginning Modern Dance I	1 credit
DAN 122	Advanced Beginning Modern Dance II	1 credit
DAN 123	Advanced Beg Modern Dance III	1 credit
DAN 130	Beginning Ballet for Majors	1 credit
DAN 131	Advanced Beginning Ballet I	1 credit
DAN 132	Advanced Beginning Ballet II	1 credit
DAN 133	Advanced Beginning Ballet III	1 credit
DAN 140	Advanced Beginning Jazz	1 credit
DAN 220	Intermediate Modern Dance I	2 credits
DAN 221	Intermediate Modern Dance II	2 credits
DAN 222	Intermediate Modern Dance III	2 credits
DAN 230	Intermediate Ballet I	2 credits
DAN 231	Intermediate Ballet II	2 credits
DAN 232	Intermediate Ballet III	2 credits
DAN 250	Modern Dance Improvisation	1 credits
DAN 251	Theory and Practice of Modern Dance	2 credits
DAN 252	Contact Improvisation	1 credit
DAN 260	Dance Workshop I	3 credits
DAN 261	Dance Workshop II	3 credits
DAN 262	Dance Workshop III	3 credits
DAN 270	Special Topics in Modern Dance I	1 credit
DAN 271	Special Topics in Modern Dance II	1 credit
DAN 272	Special Topics in Modern Dance III	1 credit

To:

Visual and Performing Arts – Associate in Science (A.S.) Degree - Concentration in Dance

COMMON CORE REQUIREMENTS

REQUIRED CORE 1A: EN-101 English Composition I	3
EN-102 English Composition II	3
REQUIRED CORE 1B: Mathematical & Quantitative Reasoning (contact your advisor)	2

REQUIRED CORE 1C: Life and Physical Sciences (select one from 1C)	3
FLEXIBLE CORE 2A: World Cultures & Global Issues (select one from 2A)	3
FLEXIBLE CORE 2B: U.S. Experience & Its Diversity (select one from 2B)	3
FLEXIBLE CORE 2C ¹ : Creative Expression (select one from 2C ¹)	3
FLEXIBLE CORE 2D: Individual & Society (select one from 2D)	3
FLEXIBLE CORE 2E: Scientific World (select one from 2E)	3
FLEXIBLE CORE 2A, 2B, 2C, 2D or 2E: (select one course ²)	3
Sub-total	30

REQUIREMENTS FOR THE MAJOR

All students in the Visual and Performing Arts A.S. Degree Program must complete one of the concentrations: Art & Design, Art History, Dance, Music, or Theatre Arts (see details following pages) to complete the degree requirements.

Sub-total 21-23

ADDITIONAL MAJOR REQUIREMENTS

SP-211 ³ Speech Communication ³	3
HE-101 Intro. to Health Education or	
HE-102 Health Behavior & Society	1-2
One course in PE-400 or PE-500 series or DAN-100 series	1
Laboratory Science ⁴ BI-132, BI-171, CH-102, CH-111, CH-121 ET-842, PH-112	0-1
Sub-total	5-7

ELECTIVES

Free Electives	0-3
Sub-total	0-3

Total Credits Required 60

1 Recommended: select from area different from concentration (ARTH-100—ARTH-128 including ARTH-202 & ARTH-225, or DAN-111, or MU-110, or MU-120, or SP-471, or SP-472, or TH-111).

2 Recommended: select course from 2C in concentration discipline.

3 Students who have taken SP-211 in the Common Core are recommended to take a Foreign Language course; or HI-110, HI-11, HI-112; or a Social Sciences course.

4 Students who have taken a STEM Variant course in the Common Core 1C have fulfilled this requirement.

All students must successfully complete two (2) writing-intensive classes (designated “WI”) to fulfill degree requirements. Sections of the following courses denoted as “WI” may be taken to partially satisfy the Writing Intensive Requirement: ARTH-100, ARTH-101, ARTH-120, ARTH-202; MU-110; SP-142, SP-433, SP-275, SP-434, TH-111, TH-120, TH-221, DAN-111, BI-140, BI-202, GE-101, GE-125, CH-101, CH-102, CH-110, CH-111; MA-301, MA-321; ECON-101, ECON-102, SOCY-101, SOCY-230, SOCY-275, PLSC-101, PLSC-180, PSYC-101, PSYC-220, PHIL-101, PHIL-130, PHIL-140; HI-110, HI-111, HI-112, HI-127, HI-128; LF-401, LG-401, LI-401, LS-402; HE-102; PH-110

DANCE CONCENTRATION

DAN 110 Foundations of Dance Movement	3
Two courses in Modern Dance technique (level determined by placement class)	
Select from DAN 124, 125, 126, 127, 220, 221 or 222	4
Two courses in Ballet technique (level determined by placement class)	4
Select from DAN 134, 135, 136, 137, 230, 231 or 232	
DAN 249 Modern Dance Improvisation	2
DAN 251 Choreography I	2
Two courses in Repertory or Workshop	
Select from DAN 160, 161 260, 261 or 262 (audition required for 260, 261, 262)	4-6
One course from Modern Dance or Ballet technique:	
Select from DAN 125, 126, 127, 220, 221, 222	
135, 136, 137, 230, 231 or 232	2
Technique elective	
Select from Modern Dance (DAN 125, 126, 127, 220, 221, 222),	
Ballet (135, 136, 137, 230, 231, 232), African/ Afro-Caribbean Dance (DAN 103),	
Advanced Beginning Jazz Dance (140), Contact Improvisation (DAN 252) or	

Sub-total 21-23

Note: Students are recommended to take DAN 111 as part of the Flexible Core (see note 2 above).

Rationale: Students working toward an AS degree in the Visual and Performing Arts with a dance concentration will no longer be permitted to take DAN 100-102 or DAN 104-107 to meet their dance credit requirements. These courses are intended for the general college population, students with a general interest in dance and those fulfilling a Physical Education requirement and not for students pursuing dance as a career. This change will bring our program into alignment with the standards of the National Association of Schools of Dance and will allow all dance classes for students pursuing the dance concentration to include a more extensive content and demand more extensive competencies. DAN 103, African and Afro-Caribbean Dance, will be allowed for credit toward the dance concentration because there is a separate section of this course for students doing the dance concentration. This course will likely be accepted for transfer credit as a World Dance credit, which is required in many 4-year dance programs.

Recommended Sequence for Dance Concentration

Fall 1st year

Ballet (level determined by placement class)	2 credits
Modern Dance (level determined by placement class)	2 credits
DAN 110 Foundations of Dance Movement	3 credits
	<u>Sub-total 7</u>

Spring 1st year

Ballet (level determined by placement class)	2 credits
Modern Dance (level determined by placement class)	2 credits
DAN 249 Modern Dance Improvisation	2 credits
DAN 160 or DAN 260 Dance Repertory I/Dance Workshop	2 or 3 credits
	<u>Sub-total 8-9</u>

Fall 2nd year

DAN 251 Choreography I	2 credits
Technique Elective (choose DAN 103, 140, 252, 270, 271, 272 or Modern Dance or Ballet)	0-2
	<u>Sub-total 2-4</u>

Spring 2nd year

Ballet or Modern Dance	2 credits
DAN 161 or DAN 261 or 262 Dance Repertory II/Dance Workshop	2/3 credits
	<u>Sub-total 4-5</u>

Required Total for the Concentration 21-23

Technique Electives

- DAN 103 African and Afro-Caribbean Dance 1 credit
- DAN 140 Advanced Beginning Jazz Dance 1 credit
- DAN 252 Contact Improvisation 1 credit
- DAN 270, 271, 272 Special Topics in Modern Dance I, II, III

Rationale: This recommended sequence accommodates the increased credit values of many courses as well as the added courses.

3. NEW COURSES

Department of Academic Literacy

CN-071 College Preparatory Reading and Writing for ESL (previously experimental)

Hours and credits: 4 hours, 0 credits

Prerequisites and/or co-requisites: None

Course description: This course is intended for English language learners (ELL) who are at a high intermediate/advanced of proficiency in English but need more practice to develop their academic language proficiency and college-level reading and writing skills via ESL pedagogy. The readings in this course include excerpts from newspapers and magazines, poetry, plays, and fiction. Writing assignments will focus on paragraph development and essay organization. Students will also further refine specific skills necessary to succeed on the ELA regents, the CUNY CATW, or equivalent CUNY reading and writing placement test.

Rationale: This course is offered for English Language learners (ELL). Many of the schools partnered with the QCC College Now program have large ESL populations. Students who are successful in this course could take either a reading or writing developmental course as a following course or a college credit course dependent on eligibility requirements for subsequent courses.

CN071 West Side Story for ESL was accepted as “experimental” at the December 11, 2011 meeting of the Academic Senate. The intent of this submission is to move the course from experimental to an official offering by the Department of Academic Literacy on behalf of College Now.

CN071 was formerly offered as CN06 by the College Now program. College Now data collected for 2009 and 2010 indicate that ELL students who took CN06 reenrolled into college credit courses at rates (31% and 24.2% respectively) which are similar to that of all QCC’s CN students (32%). Out of 552 students who took CN06 from FY 2007 to FY 2011, ELA Regents performance data was available for 508 students who took the exam upon completing the course. Of the 508 students with Regents exam data available, 293 (57.7%) achieved scores of 75 or higher on the ELA Regents exam. 248 of the 552 students who took CN06 entered CUNY. The intent of this submission is to move the course from experimental to an official offering by the Department of Academic Literacy on behalf of College Now.

Department of Biological Sciences and Geology

BI-111: Introduction to Human Biology

Prerequisites (and/or) co-requisites: None

Hours and credits: 3 classroom hours, 3 credits

Course description: 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.

Department of Business

1. CIS-102: Programming Fundamentals for Business

Prerequisites: None

Hours and credits: 2 class hours, 2 laboratory hours – 3 credits

Course description: Introduction to algorithmic thinking, problem solving and computer fundamental programming for business applications. Use of hierarchy chart development, flowcharting, pseudo-code and computer language statements for program development. “Python” will be utilized for hands-on experience in developing, writing, running and debugging computer code.

Rationale: This course will be offered every semester (Fall and Spring). As computer technology changes rapidly the need of curricula updates become urgent. This course is a response to such a need and a necessity to align the CIS curriculum with those in CUNY and elsewhere. The projected enrollment is from 40 to 50 students per semester.

2. CIS-251: Analysis and Design of Systems Projects

Prerequisites: CIS-208 and CIS-152 and MA-010 or satisfactory score on the Mathematics Placement Test

Hours and credits: 2 class hours, 2 laboratory hours – 3 credits

Course description: Students use all previously learned data processing concepts and techniques in this laboratory course to design and implement a complete data processing application package for common business needs, such as payroll, inventory management, accounts receivable files, and management information systems. Development of the application will be accomplished concurrently with the study of the phases of Systems Analysis and Design.

Rationale: This course will be offered every semester (Fall and Spring). While student will have learned the technical skills to develop systems solutions to focused business problems as a prerequisite, this course applies those capabilities in an actual project development environment. The environments include defining client requirements, documenting same, producing prototypes, and the actual systems solution.

Department of Engineering Technology

1. ET-232: Wireless Mobile Communications

Prerequisite: ET-704 or Department Permission

Hours and credits: 3 credits, 3 hours

Course description: 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.

2. ARCH-119 Visualization I

Co-requisite: ARCH-111 or CONM-111

Hours and credits: 1 class hour, 3 laboratory hours, 2 credits

Course description: An introduction to the language of architectural representation and visualization. Students will develop the techniques and skills to perceive visual cues, make aesthetic evaluations, translate information into graphic representation, create visual design and formulate and render concepts in two or three dimensions. This course introduces basic skills for the manipulation and generation of both free hand and digital images. Model making, scanning and image editing concepts are introduced. Associated topics in computer systems, file management, word processing and spreadsheets are covered.

Rationale: This course will be taken in tandem with ARCH-111, Architectural Design I. This will provide a unified

modern, integrated approach. The emphasis is on design concepts, and students will use both manual and computerized skills to implement these ideas. This newly modified course more closely aligns with a similar course at New York City College of Technology, and this will assist transfer students greatly. The co-requisite is added to ensure that students get the full benefit of the unified approach. Course numbering has been updated in order to provide more efficient advising processes.

2. ARCH-121 Architectural Design II

Pre-requisites: ARCH-111 and ARCH-119, both with a grade of C or higher

Co-requisite: ARCH-129

Hours and credits: 2 class hours, 3 laboratory hours, 3 credits

Course description: A continuation of the concepts begun in ARCH-119. Students will increase their knowledge of architectural design. A more in-depth study of in the perception of visual cues, the creation of visual designs, the formulation of concepts, and the rendering of ideas in two and three dimensions. Using a combination of manual and digital skills, students will create and interpret three-dimensional objects and spaces and develop drawings and renderings using standard projection systems.

Rationale: The loyalty to either manual or computerized methods of drafting is being abandoned in favor of a modern, integrated approach. The emphasis will be on design concepts, and students will use both manual and computerized skills to implement these ideas. This newly modified course more closely aligns with a similar course at New York City College of Technology, and this will assist transfer students greatly. The pre-requisites have been updated and a co-requisite added in order to ensure that students benefit fully from the unified experience. Course numbering has been updated in order to provide more efficient advising processes.

3. ARCH-129 Visualization II

Pre-requisites: ARCH-111 or CONM-111 with a grade of C or higher, and ARCH-119 with a grade of C or higher.

Hours and credits: 1 class hour, 3 laboratory hours, 2 credits.

Course description: A continuation of the concepts of architectural representation and visualization begun in ARCH-111 and ARCH-119. The focus is on precise crafting of physical and analogue models and architectural presentations, analogue and digital rendering techniques, and representation of geospatial information. Students hone their skills using manual and digital tools and enhance their design work by strengthening visual, verbal and graphical skills. Students will demonstrate fluency in and understanding of key design vocabulary, concepts and visual techniques.

Rationale: This course will be taken in tandem with ARCH-121, Architectural Design II. This will provide a unified technical approach, in which loyalty to either manual or computerized methods of drafting are abandoned in favor of a modern, integrated approach. The emphasis is on design concepts, and students will use both manual and computerized skills to implement these ideas. This newly modified course more closely aligns with a similar course at New York City College of Technology, and this will assist transfer students greatly. The co-requisite is added to ensure that students get the full benefit of the unified approach and the pre-requisite is added to ensure that students have the appropriate background knowledge to be successful. Course numbering has been updated in order to provide more efficient advising processes.

4. CONM-111 Construction Design

Hours and credits: 2 Class hours, 3 Lab hours, 3 credits

Course description: An introduction to construction project management. The construction process, bidding and awards, scheduling and planning, codes and standards, and safety.

Rationale:

Students who pursue the new Construction Management track in the Architectural Technology program will need an overview of the entire field and its processes to be competitive when applying for transfer or for entry in the job market. This course provides an introduction to these topics at a level that is appropriate for a two-year college. For those students who continue on in the major, this course will give them a firm foundation on which to build future studies. For those who pursue employment, it will give the skills necessary to perform at an entry level.

5. CONM-241 Construction Cost Analysis

Hours and credits: 3 Class hours, 3 credits

Co-requisite: ECON 101, Introduction to Macroeconomics

Course description: An introduction to the analysis of labor and material costs and forecasting. Students are introduced to methods of estimating, development of bids, quality assurance, contracts and ethics. Extensive case study analysis is conducted. Students will develop a complete bid package and formally present and defend it.

Rationale: Students who pursue the new Construction Management track in the Architectural Technology program will need proficiency in the development of cost estimates and the preparation of bid packages to be competitive when applying for transfer or for entry in the job market. This course provides an introduction to these topics at a level that is appropriate for a two-year college. For those students who continue on in the major, this course will give them a firm foundation on which to build future studies. For those who pursue employment, it will give the skills necessary to perform at an entry level.

6. CONM-248 Soils, Foundations and Structures
Credits and hours: 2 Class Hours, 3 Lab hours, 3 credits
Pre-requisite: MT 341 Applied Mechanics

Course description: An introduction to soil mechanics, foundation and earth structures. Soil classification, soil properties, soil stresses, earth pressures, bearing capacity, and slope stability. Principles of foundation analysis, design of retaining walls. Students conduct laboratory experiments to test soil behavior.

Rationale:
Students who pursue the new Construction Management track in the Architectural Technology program will need proficiency in foundations and structures to be competitive when applying for transfer or for entry in the job market. This course provides an introduction to these topics at a level that is appropriate for a two-year college. For those students who continue on in the major, this course will give them a firm foundation on which to build future studies. For those who pursue employment, it will give the skills necessary to perform at an entry level.

Department of English

1. ENGL-263 Holocaust Literature
Hours and Credits: 3 class hours, 1 recitation hour, 3 credits
Prerequisites: ENGL 102

Course description: This course offers a study of the Holocaust through a variety of genres, including poetry, novels, short stories, plays, memoirs, primary sources, film, and children's literature, in order to gain a better understanding of the unfolding, impact, meaning and significance of the Holocaust. Students will study the origins and development of the Holocaust and its political, cultural, economic and social implications through the lens of a variety of artists, writers and scholars.

Rationale: This course was offered as a Special Topics and, given the resources available at Queensborough, it should be converted into a regular course. Queensborough is unique in having both the Kupferberg Holocaust Resource Center and an NEH grant that provides \$50,000 to a faculty member annually for Holocaust programming. A standing class would support activities in the area of Holocaust education and initiatives at the college by providing the opportunity for students to study Holocaust literature. This course has already been offered successfully, and it promotes the inclusion of high impact practices. Offering it as a regular class will facilitate students' ability to transfer by making the course description readily available within CUNY in TIPPS and in the catalog for reference to outside institutions. Finally, CUNYFirst does not permit to list special topics under "Course Description" — only official catalog descriptions can be preloaded there. Instead, special topics descriptions are included under "Notes," which can cause students and advisors to overlook what the courses are about.

2. ENGL-264 Graphic Genres
Prerequisites: ENGL 102
Hours and Credits: 3 class hours, 1 recitation hour, 3 credits

Course description: This course seeks to explore graphic novels and other related graphic genres and visual formats — journalism, memoir, fiction, history, and film — to investigate the evolution, power and popularity of texts that combine words and pictures. Topics and themes examined include war, family, sexuality, adolescence, ethnicity, identity, politics and science fiction. In addition to learning about graphic novels and genres, students will create their own graphic work, as well as conduct research and present on a topic, artist, genre, or work of their choice.

Rationale: This course reflects current curricular changes in the English discipline. Graphic literacy is increasingly important in this day and age, as younger generations are very strong visual learners. This is an upper-division English class that fulfills major requirements for the Associate in Arts. It is a very popular class with healthy enrollments every semester that it is offered. This course has already been offered successfully, and it promotes the inclusion of high impact practices. Offering it as a regular class will facilitate students' ability to transfer by making the course description readily available within CUNY in TIPPS and in the catalog for reference to outside institutions. Finally, CUNYFirst does not permit to list special topics under "Course Description" — only official catalog descriptions can be preloaded there. Instead, special topics descriptions are included under "Notes," which can cause students and advisors to overlook what the courses are about.

Department of Health, Physical Education and Dance

1. PE-842: Philosophy of Coaching

Prerequisites and/or co-requisites: None

Credits and hours: 1 credit, 2 class hours, 10 hours of field experience

Course description: Students will be provided with an overview of the psychology of coaching and participation in sport and exercise. Basic psychology of individuals and groups will be discussed as it affects participation and success within athletics. The course will incorporate all levels of coaching, but will focus on coaching youth athletics. Topics will include motivation, stress, communication, group dynamics, leadership, reinforcement, feedback, and strategies as they relate to coaching.

Rationale: Philosophy of Coaching will provide students with fundamental knowledge of coaching young athletes. The field experience will provide them with hands-on practice on camp work or after-school settings. Many city and private-based camps are in search for trained individuals to work in summer camps and after school centers. This course will provide a unique advantage to applicants for these positions. Students can use the knowledge obtained from this course to pursue higher level coaching, such as high school and collegiate athletics.

2. DAN 160 Repertory I

Hours and credits: 4 hours 2 credits

Prerequisites: Student must be enrolled in Advanced Beginning or Intermediate Modern Dance and/or Ballet (DAN 125, 126, 127, 135,136,137, 220, 221,222, 230, 231 or 232) or permission of the instructor.

Course description: In Repertory I students will rehearse and perform a dance work. Through this process students will gain technical, collaborative and performance skills necessary for a career as a dancer. This class is offered for students who are not cast in Dance Workshop.

3. DAN 161 Repertory II

Hours and credits: 4 hours 2 credits

Prerequisites: Student must be enrolled in Advanced Beginning or Intermediate Modern Dance and/or Ballet (DAN 125, 126, 127, 135,136,137, 220, 221,222, 230, 231 or 232) or permission of the Instructor.

Course description: Repertory II is a continuation of Repertory I. In Repertory II students will rehearse and perform a dance work. Through this process they will gain technical, collaborative and performance skills necessary for a career as a dancer. This class is offered for students who are not cast in Dance Workshop.

4. Rationale for DAN 160 and 161 Repertory I and II: Entrance into the Dance Workshop class and performance is through an audition. Some of our students each year do not get selected for this. Rehearsing a dance and getting it ready for performance is such a focused and intensive process that many of our students make huge strides in their dance skills through this experience. Dance Repertory class will be an opportunity for less advanced students, who do not get into Dance Workshop, to learn, rehearse and do a studio performance of a dance piece and have an opportunity for growth comparable to that of the stronger students.

Department of History

1. HI-132: 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

Course description: 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.

2. HI-173: Barbarians: From the Roman Empire to the Early Modern World

Credits and hours: 3 credits, 3 hours

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

Course description: This course will discuss the different groups that modern historians and contemporaries have called 'barbarians,' from the later Roman Empire through the Middle Ages and to the early modern period. Topics to be considered include definitions of barbarians, the role of barbarians in the fall of the Roman Empire, barbarian identity and the creation of barbarian states, later barbarian groups such as the Vikings and Mongols, and, finally, early modern Europeans as barbarians in China and Japan.

Rationale: A course on barbarians from Roman times to the early modern period is needed because many of the Roman ideas about civilization and barbarism have had a profound effect on the way that western culture has viewed non-western peoples. Through an analysis of the creation and use of the concept of barbarians and the interaction between peoples categorized as barbarians and those as deemed civilized, students will gain an awareness of identity politics in the pre-modern world. Assessing the development and validity of simple binary categories, such as barbarian versus civilized, fulfills a core mission of QCC by sharpening students' global awareness. Students are often surprised that European countries were not always dominant in world politics, and thus this course, which traces the relationship between the peoples of Europe to first the Mediterranean Roman Empire and finally to China, highlights some of the fundamental differences between the pre-modern and modern worlds

3. HI-193: Introduction to the History of Borderlands

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

Credits and hours: 3 hours, 3 credits

Course description: Borderlands are areas where nation states meet one another. There are many borderlands the world over, and many of them share similar problems and challenges for their respective governments. In this class, we will see how there is a common trajectory to borderlands histories, since they are all by definition frontier zones and they often elude state surveillance. Such highly diverse actors as cattle rustlers, Indians, runaway slaves, grasping caudillos, and drug runners appear often in borderlands histories. We will compare the history of borderlands across Latin America and pay particular attention to the border separating Latin American and U.S. space. The U.S./Mexico borderlands—as they are the most familiar and well researched of contemporary global borderlands—will figure prominently in the course.

Rationale: The importance of the topic of borderlands in the current world makes this a particularly salient topic amongst undergraduates. The topic bridges the gap between academia and real world politics and holds a broad interest among students. Use of the available resources on campus and in the metropolitan area can help students with their research agendas. The course arms students with a critical vocabulary to discuss an issue that has global implications. The course fulfills the mission of the college of promoting intellectual inquiry and global awareness among students.

Department of Mathematics and Computer Science

1. 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

Course description: 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.

2. 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

Course description: 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.

Department of Social Sciences

1. PSYC245: Cross-Cultural Psychology

Credits and hours: 3 class Hours, 3 credits

Prerequisites: PSYC101

Course description: This course offers an introduction to the field of cross-cultural psychology. In this course, students study the cultural similarities and differences of human behavior and mental processes. Students examine how race, gender, religion, geography, language and other demographic variables influence the ways in which individuals maneuver through their worlds. Relevant topics include: cross-cultural research methodology; culture and perception; intelligence, universality of human emotions; motivation; human development and socialization; psychological disorders; social cognition and cultural values; and social interactions.

RATIONALE: Cross-cultural psychology is relevant to students who are interested in exploring the impact culture has on the human experience. Given the cultural diversity that exists at QCC, the course can be a lens in which students explore their own culture within specific psychological topics.

2. SOCY-285: Human Behavior in the Social Environment

Prerequisite: SOCY185

Credits and hours: 3 class hours, 3 credits

Course description: This is a foundation course to familiarize students with the generalist social work practice. The course material is taught from bio-psycho-social-cultural perspectives, and includes theoretical and empirical knowledge about normal biological, psychological, and sociological development. The emphasis is on issues of human diversity, including race, ethnicity, gender, age and sexual orientation, and on the impact of oppression and discrimination on individuals and families throughout their lifespan.

Rationale: The social work field has been growing. Students have been requesting a course in addition to SOCY 185 to continue their study in the field.

Department of Speech Communication and Theater Arts

1. TH-135: Costume Construction

Prerequisites and/or co-requisites: None

Credits and hours: 2 class hours, 2 studio hours, 3 credits

Course description: Project based learning with a concentration on costume and garment construction, basic and advanced sewing skills, and basic draping and pattern making. Basic introduction to different techniques for hand sewing, machine sewing, fabrics and costume shop equipment. Students will explore basic pattern making, flat patterning, draping. Student will apply their skills to various personal sewing and building projects, as well as being involved in builds and alterations for current theatrical productions. This will garner a greater understanding of the process and function of a professional costume shop.

Rationale: A costume construction class is necessary to fully realize a technical learning of theater in this program.

2. TH-235 Stage Management

Prerequisites: TH131, Stage Craft I

Hours and Credits: 3 class hours, 3 credits

Description: Project-based learning with a concentration on stage management and production, call book, rehearsal and technical rehearsal process, and performance. Basic introduction to different techniques for organization and personal management. Students will apply their skills to stage manage current department theatrical productions. This will garner a greater understanding of the process and function of a professional stage manager.

Rationale: This course will formalize our instruction of students, who currently serve as stage managers for departmental productions. It will expand upon our offerings for students who wish to fulfill a technical theatre tract. It will fulfill the need for a stage management class based on student's requests and suggestion. Class will offer students basic instruction for how to work professionally as a theatrical stage manager.

4. DELETION OF PROGRAMS

Department of Physics

~~Laser and Fiber Optics Technology Program~~

RATIONALE: Enrollment in the program has been low for many years and the department cannot justify its continuation. Students will be able to take the courses, which will remain in the catalog, but the program will cease to exist.

Department of Art and Design

~~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

5. OTHER

Statement in Support of the Recommendation of the General Education Assessment Task Force Report

The Committee on Curriculum has read and discussed the General Education Assessment Task Force report containing a summary of the work of the Assessment Task Force during June 2014. The report recommends that the Task Force review the General Education outcomes for possible revisions. The Committee on Curriculum supports this recommendation.