February 2017 MONTHLY REPORT - COMMITTEE ON CURRICULUM

To: Peter Bales, Academic Senate Steering Committee

From: Lorena B. Ellis, Chairperson, Committee on Curriculum

Date: March 20, 2017

Subject: February Monthly Report for the March, 2017 Senate

CC: College Archives (CWilliams@qcc.cuny.edu)

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

10-1 Course revisions (Item1)
3 new courses (Item 2)
5-1 Program revisions (Item 3)

1. Course Revisions

DEPARTMENT OF ENGINEERING TECHNOLOGY
Departmental approval date January 26, 2017.

FROM:
ET110 Electric Circuit Analysis ~~I~~
3 class hours, 3 laboratory hours, 4 credits
Co-requisite: MA-114
~~This course~~ must be completed with a grade of C or better before the student will be permitted to register for more advanced courses in electrical or computer engineering technology.

Course description:
~~Resistance; Ohm's law; Kirchhoff's laws, networks with DC current and voltage sources; branch-current analysis; mesh and nodal analysis, superposition. Thevenin's, Norton's, maximum power theorems; capacitance; magnetic circuits; inductance; DC meters.~~ Laboratory hours complement class work.

TO:
ET110 Electric Circuit Analysis
3 class hours, 3 laboratory hours, 4 credits
Co-requisite: MA-114
Note: ET-110 must be completed with a grade of C or better before the student will be permitted to register for more advanced courses in electrical or computer engineering technology.

Course description:
An introductory course to the fundamentals and basic principles of DC and AC circuits. Topics include: resistance, voltage, current, Ohm's Law, Kirchoff's laws, power, superposition, network theorems, Thevenin's and Norton's Theorems, maximum power transfer, introduction to AC, capacitors and inductors. Laboratory hours complement class work

Rationale:
Basic AC analysis is added to ET-110 and less time will be spent on theoretical concepts such as resistivity and less common network theorems. The department feels that providing a strong knowledge of computer programming with ET-575 is more important for CT majors than the additional AC Circuit Analysis topics covered in ET-140. Thus ET-

575 replaces ET-140 for CT majors and basic AC Analysis will be added to ET-110, Electric Circuit Analysis, to prepare students to take ET-210, Electronics I. The course ET-140, Transient and Sinusoidal Circuit Analysis, will be removed from the CT program requirements but will be available as an elective course to these students.

The course is renamed from "Electric Circuit Analysis I" to simply "Electric Circuit Analysis" because for many years there has been no Electric Circuit Analysis II in our curricula.

FROM:
ET210 Electronics I
3 class hours, 3 laboratory hours, 4 credits
Corequisite: ~~ET-140 or~~
Prerequisite: ~~ET-910 or ET-125~~

Course description:
Basic theory and operation of ~~solid-state devices including diodes, BJTs, FETs, and MOSFETs, silicon-controlled rectifiers, varactors and Zener diodes. Clipping and clamping circuits. Graphical and equivalent circuit analysis of active devices. DC biasing and AC analysis of transistor circuits. Rectifiers, filter and power supply circuit design.~~ Laboratory hours complement class work.

TO:
ET210 Electronics I
3 class hours, 3 laboratory hours, 4 credits
Pre-requisite: ET-110 with a grade of C or better
Co-requisite: none

Course description:
Basic theory and operation of semiconductor devices and linear integrated circuits including diodes, BJTs, JFETs, MOSFETs, Zener diodes, and operational amplifiers. DC power supply circuit analysis and design. Operational amplifier circuits include inverting and non-inverting amplifiers and applications. Laboratory hours complement class work.

Rationale:
Due to the ever-increasing complexity of electronic circuits, integrated circuits such as operational amplifiers have become fundamental to the field. Therefore ET-210 will be modified to include the topic of basic operational amplifiers and will spend less time on discrete components such as diodes and transistors. The pre-requisite is changed from ET-140 to ET-110 to support the CT and TC curricular revisions that eliminate ET-140. ET-910 and ET-125 are not currently offered.

FROM:
ET230 Telecommunications I
1 class hour, 2 recitation hours, 3 laboratory hours, 3 credits
Pre-requisite: ~~ET-220~~
Co-requisite: None

Course description:
Servomechanism components, operational amplifiers, Laplace transforms, block diagram algebra, transfer functions, steady state and transient analysis of second order systems, proportional control and tach feedback, frequency response analysis, Bode plots, stability gain margin and phase margin, compensation techniques, digital to analog conversion, robotic applications. Laboratory hours complement class work.

TO:
ET230 Telecommunications I
1 class hour, 2 recitation hours, 3 laboratory hours, 3 credits

Pre-requisite: none
Co-requisite: ET-560

Course description:
Topics will include: servomechanism components, operational amplifiers, Laplace transforms, block diagram algebra, transfer functions, steady state and transient analysis of second order systems, proportional control and tach feedback, frequency response analysis, Bode plots, stability gain margin and phase margin, compensation techniques, digital to analog conversion, robotic applications. Laboratory hours complement class work.

Rationale:
Control systems applications frequently employ microcontrollers, so the co-requisite of ET-560, Microprocessors, will better support ET-320. The course revision of ET-210, Electronics I, will provide an introduction to operational amplifiers that is adequate preparation for ET-320.

ET232:
Not be voted on in the March 14->21 senate: New information needs to be discussed and approved

~~FROM:~~
~~ET232 Wireless Mobile Communications~~
~~3 class hours 3credits~~
~~Pre-requisite: ET 704 or Permission of the Department~~
~~Co-requisite: None~~

~~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.~~

~~TO:~~
~~ET232 Wireless Mobile Communications~~
~~3 class hours 3 credits~~
~~Pre-requisite: ET 704 or Permission of the Department~~
~~Co-requisite: None~~

~~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.~~ ~~Laboratory hours complement class work.~~

~~Rationale:~~
~~A laboratory component is needed because industry careers in wireless technology require these hands-on skills. Wireless networks are now essential infrastructure components. In learning the concepts of wireless networks via hands-on labs, students get the opportunity to understand the underlying technologies needed to prepare the engineers and technologists for the next generation. A laboratory component is also advisable for more effective learning. These hands-on projects provide problem-based learning.~~

FROM:
ET320 Electrical Control Systems
1 class hour, 2 recitation hours, 3 laboratory hours, 3 credits
Pre-requisite: ~~ET 220~~
Co-requisite: None

Course description:
Servomechanism components, operational amplifiers, Laplace transforms, block diagram algebra, transfer functions, steady state and transient analysis of second order systems, proportional control and tach feedback, frequency response analysis, Bode plots, stability gain margin and phase margin, compensation techniques, digital to analog conversion, robotic applications. Laboratory hours complement class work.

TO:
ET320 Electrical Control Systems
1 class hour, 2 recitation hours, 3 laboratory hours, 3 credits
Pre-requisite: None
Co-requisite: ET-560

Course description:
Topics will include: servomechanism components, operational amplifiers, Laplace transforms, block diagram algebra, transfer functions, steady state and transient analysis of second order systems, proportional control and tach feedback, frequency response analysis, Bode plots, stability gain margin and phase margin, compensation techniques, digital to analog conversion, robotic applications. Laboratory hours complement class work.

Rationale:
Control systems applications frequently employ microcontrollers, so the co-requisite of ET-560, Microprocessors, will better support ET-320. The course revision of ET-210, Electronics I, will provide an introduction to operational amplifiers that is adequate preparation for ET-320.

FROM:
ET410 Electronic Project Laboratory
3 laboratory hours, 1 credit
Pre-requisite: ~~ET-501~~
Co-requisite: ~~ET-230~~

Course description:
A practical course exposing the student to the design, fabrication, assembly and trouble-shooting techniques associated with the manufacture and servicing of consumer electronic products. Working individually, students construct finished products employing Computer Aided Design software, the departmental printed circuit fabrication facility, small tools and test equipment.

TO:
ET410 Electronic Project Laboratory
3 laboratory hours, 1 credit
Pre-requisite: ET-560
Co-requisite: None

Course description:
A practical course exposing the student to the design, fabrication, assembly and trouble-shooting techniques associated with the manufacture and servicing of consumer electronic products. Working individually, students construct finished products employing Computer Aided Design software, the departmental printed circuit fabrication facility, small tools and test equipment

Rationale:
Microprocessors have become more prevalent in both the ET and TC fields and thus course projects have evolved to be more microprocessor based (ET-560). Therefore ET560 is proposed for the current prerequisite. ET-501 is being removed from the ET and CT curricula so it should no longer serve as a prerequisite course.

FROM:
ET502 Introduction to Computer Programming
3 laboratory hours, 1 credit
Pre-requisite: ~~ET-501~~
Co-requisite: None

Course description:
Introduction to the VISUAL Basic programming language with application problems in ~~electrical and Computer~~ Engineering Technology. Provides hands-on experience in the Department's computer ~~center~~.

TO:
ET502 Introduction to Computer Programming
3 laboratory hours, 1 credit
Pre-requisite: None
Co-requisite: None

Course description:
Introduction to the VISUAL Basic programming language with application problems in Engineering Technology. Provides hands-on experience in the Department's computer labs.

Rationale:
ET-501, Computer Applications, is being removed from the ET and CT curricula. Students in these curricula now have enough of a computer aptitude to succeed in an introductory programming class such as ET-502. The course description is updated for clarity and current terminology.

FROM:
ET509 ~~C++~~ Programming for Embedded Systems
3 laboratory hours, 1 credit
Prerequisite: ET-501
Co-requisite: None

Course description:
~~The nature of a program, simple C++ programs, variables, binary and hex number system, mathematical and logic operations with binary and hex numbers, looping and delays, arrays, pointers, microprocessor memory characteristics, data manipulation using pointers, input output programming exercises on a real microprocessor.~~

TO:
Programming for Embedded Systems
3 laboratory hours, 1 credit
Prerequisite: Either ET-501 or TECH-100
Co-requisite: None

Course description:
Introduction to embedded programming of single board microcontrollers and microprocessors, simple machine code, assembly and high-level language programs, binary and hex number systems, debug utility program, program variables, CPU addressing modes and flags, mathematical and logic operations with binary and hex numbers, looping and delays, microprocessor registers and memory characteristics. The course includes data input/output programming exercises on a microcontroller.

Rationale:
The course is and has been an embedded programming course, however due to the title and course description students are often confused that this is not a full-blown C++ course. Additionally the course may not always utilize C++, for instance this semester Arduino C is being utilized in some of the sections as opposed to C++. Thus the

references to C++ have been removed from the title and course description. The course content and objectives remains essentially unchanged.

FROM:
ET-542 Computer and Electrical Device Applications
3 laboratory hours, 1 credit
Pre-requisite: ~~ET-210 and~~ ET-540 ~~or ET-510~~
Co-requisite: None

Course description:
A practical course in the design and building of computer and electrical device applications. Topics include: Zener Diode Voltage regulators, Switching Applications, Darlington Configurations, Photo transistors, OP AMP Applications, Relays, and the use and design of Programmable Logic Devices into circuit applications.

TO:
ET-542 Computer and Electrical Device Applications
3 laboratory hours, 1 credit
Pre-requisite: ET-540
Co-requisite: None

Course description:
A practical course in the design and building of computer and electrical device applications. Topics include: Zener Diode Voltage regulators, Switching Applications, Darlington Configurations, Photo transistors, OP AMP Applications, Relays, and the use and design of Programmable Logic Devices into circuit applications.

Rationale:
ET-540, Digital Computer Theory, is appropriate preparation for this second course in digital electronics.

FROM: **CONTINGENT ON DEPARMENTAL APPROVAL: 3/8/2017**
ET580 Object Oriented Programming
3 class hours 3 credits
Pre-requisite: ET-575
Co-requisite: None

Course description:
This course covers object-oriented programming principles and techniques using C++. Topics include pointers, ~~classes, overloading, data abstraction, information hiding, encapsulation, inheritance, polymorphism, file processing, templates, exceptions, container classes, and low-level language features.~~

TO:
ET580 Object Oriented Programming
3 class hours 3 credits
Pre-requisite: ET-575
Co-requisite: None

Course description:
This course covers object-oriented algorithmic problem solving using C++. Topics include pointers, pointer arithmetic; linked lists; memory management; recursion; operator overloading; inheritance and polymorphism; stream and file I/O; exception handling; templates and STL; applications of simple data structures and debugging techniques.

Rationale:
The course outline and description have been revised to more accurately reflect the contents of the course and correspond to comparable course at Queens College.

2. New Courses

DEPARTMENT SOCIAL SCIENCE NEW COURSE
Departmental approval date February 7, 2017
PHIL170 Asian Philosophies
3 class hours / 3 credits
Pre-requisites: BE-122 (or 226), or satisfactory score on the CUNY/ACT Assessment Test.

Course Description for college catalog:
An overview of the four most influential philosophical traditions of East Asia, namely Vedanta (Hinduism), Confucianism, Daoism, and Buddhism. More specifically, this course will focus on reading central texts in the Hindu, Confucian, Daoist, and Buddhist traditions to explore their philosophical architecture, or radically non-Western conceptions such as the Daoist understanding of emptiness, and the various implications of these insights for Western philosophy, culture, and everyday life.

Rationale:
At present, our philosophy courses only cover the traditions originating in one continent (Europe), roughly 25% of our students are of Asian descent, and campus integration and harmony would be fostered by the rest of the student body being at least minimally familiar with the most important ideas in Asian history.

DEPARTMENT HEALTH, PHYSICAL EDUCATION AND DANCE
Departmental approval date February 8, 2017
HE-202, Social and Behavioral Determinants of Health
3 class hours / 3 credits
Pre-requisites: HE114, Principles and Practices of Public Health

Course Description for college catalog:
This course introduces students to the various biological, psychological, socio-cultural, economic, environmental, institutional, organizational and political factors influencing health behavior and relevant disparities in health outcomes. Students are exposed to core theories and models used in the analysis of health behavior and outcomes from a systems perspective. Emphasis is placed on applying theories/models at various levels of influence to current health problems as a basis for intervention design.

Rationale:
This course is needed to satisfy a major requirement for students in the QCC-York A.S./B.S. Dual/Joint Public Health Degree Program. Offering this foundational public health course at QCC enables students to fulfill the pre-requisite for subsequent upper-level courses that they will take at York in their 3rd and 4th years in the program.

BIOLOGICAL SCIENCES AND GEOLOGY DEPARTMENT
Departmental approval date 02/08/16
BI-522, Applied Biostatistics
3 class hours, 3 credits
Pre-requisites: MA 336, Statistics; HE 114: Principles and Practices of Public Health; BI 503: Epidemiology

Course Description for college catalog:
This survey course is designed to provide students with basic knowledge and skills to conduct statistical techniques applied to tests and measurements in public health. It will concentrate on the interpretation and comprehension of graphical and statistical techniques that are important components of research and public health practice. Students

will be exposed to topics such as vital statistics, and the evaluation of tools to measure health attitudes, knowledge, and behavior. In addition, students will learn to use computer software for statistical analysis.

Rationale:
The course will satisfy the major's requirement in the proposed Dual-Joint B.S. Public Health Program with York College (proposal in progress). This course is designed to provide students with basic knowledge and skills to conduct statistical techniques applied to tests and measurements in public health.

3. Program Revision – York College needs more time

~~DEPARTMENT OF BIOLOGICAL SCIENCES AND GEOLOGY~~
~~DEPARTMENT HEALTH, PHYSICAL EDUCATION AND DANCE~~

~~Changes in Dual Joint A.S./B.S. Public Health Program of QCC York: the revisions are requested jointly by Department of Biological Sciences and Geology and Health, Physical Education and Dance Department~~

~~Change or Adapt a Registered Program~~

~~Use the Request to Change or Adapt a Registered Program form to request program changes that require approval by the State Education Department (see chart).* For **programs that are registered jointly** with another institution, all participating institutions must confirm support for the changes.~~

~~Exceptions~~~~:~~

- ~~To change a registered professional licensure program or add a license qualification to an existing program, contact the Office of the Professions for guidance.~~
- ~~To change a registered teacher certification or educational leadership certification program or add a certificate qualification to an existing program, use the education program change form.~~

~~**Changes and Adaptations Requiring State Education Department Approval**~~

* **CUNY and SUNY** institutions: contact System Administration for guidance.

Changes and Adaptations Requiring State Education Department Approval
Changes in Program Content (all programs) 1. *Any* of the following substantive changes: • Cumulative change from the Department's last approval of the registered program of one-third or more of the minimum credits required for the award (e.g., 20 credits in an associate degree program) • Changes in the program's focus or design (e.g., eliminating management courses in a business administration program), including a change in the program's major disciplinary area • Adding or eliminating an option or concentration • Eliminating a requirement for completion, including an internship, clinical, cooperative education, or other work-based experience • Altering the liberal arts and science content in a way that changes the degree classification, as defined in Section 3.47(c)(1-4) of Regents Rules
Other Changes (all programs) 2. Program title 3. Program award (e.g., change in degree) 4. Mode of delivery (**Note**: if the change involves adding a **distance education format** to a registered program, please complete the distance education application.) 5. Discontinuing a program 6. A format change that alters the program's financial aid eligibility (e.g., from full-time to part-time, or to an abbreviated or accelerated semester) 7. A change in the total number of credits of any certificate or advanced certificate program
Establishing New Programs Based on Existing Registered Programs 8. Creating a dual-degree program from existing registered programs 9. Creating a new program from a concentration/track in an existing registered program

PLEASE NOTE:

Establishing an existing program at a new location requires new registration of the program. If the requested action changes the program's major disciplinary area, master plan amendment may be needed if the revised program represents the institution's first program in that major subject area, at that degree level. If a requested **degree title** is not authorized for an institution chartered by the Board of Regents, charter amendment will be needed.

NEW YORK STATE EDUCATION DEPARTMENT

Office of Higher Education—Office of College and University Evaluation

89 Washington Avenue, Albany, NY 12234

(518) 474-2593 Fax: (518) 486-2779

ocueinfo@mail.nysed.gov

http://www.highered.nysed.gov/ocue/

Request to Change or Adapt a Registered Program	
Item	**Response** *(type in the requested information)*
Institution name and address	Queensborough Community College, City University of New York *Additional information:* • Specify campus where program is offered, if other than the main campus:
Identify the program you wish to change	Program title: QCC/York Dual/Joint A.S. Degree in Public Health leading to the B.S. Degree Program I Health in Public Health Award (e.g., B.A., M.S.): A.S./B.S. Credits: 120 HEGIS code: 1214.00 QCC Program code: **20509 / 37703**
Contact person for this proposal	Name and title: Andrea Salis, Faculty Fellow, Office of Academic Affairs Anuradha Srivastava, Director, Public Health Program, Biological Sciences and Geology Department Telephone:718 281 5146/718 718 631 6335 Fax: 718 281 5684/718 631 6678 E-mail:asalis@qcc.cuny.edu/asrivastava@qcc.cuny.edu
CEO (or designee) **approval**	Name and title: Diane B. Call, President of Queensborough Community College/City University of Ne York Signature and date:

Signature affirms the institution's commitment to support the program as revised.	If the program will be registered jointly[2] with another institution, provide the following information: Partner institution's name: YORK College, City University of New York Name and title of partner institution's CEO: Dr. Marcia V. Keizs, President of York College/City Unive of New York Signature of partner institution's CEO:

- For **programs that are registered jointly** with another institution, all participating institutions must confirm their support of the changes.
- To change a registered professional licensure program or add a license qualification to an existing program, contact the Office of the Professions for guidance.
- To change a registered teacher certification or educational leadership certification program or add a certificate qualification to an existing program, use the education program change form.
- If the change involves **establishing an existing registered program at a new location**, complete a new registration application for the proposed program.

Check all changes that apply and provide the requested information.

Changes in Program Content *(Describe and explain all proposed changes; provide a side-by-side comparison of the existing and newly modified programs.)*

[2] If the partner institution is non-degree-granting, see CEO Memo 94-04 at www.highered.nysed.gov/ocue/ceo94-04.htm.

[ ] Cumulative change from the Department's last approval of the registered program that impacts one-third or more of the minimum credits required for the award (e.g., 20 credits in an associate degree program)

[ ] Changes in a program's focus or design

[ ] Adding or eliminating an option or concentration

[ ] Eliminating a requirement for program completion

[ ] Altering the liberal arts and science content in a way that changes the degree classification, as defined in Section 3.47(c)(1-4) of Regents Rules

If new courses are being added as part of the noted change(s), provide a syllabus for each new course and list the name, qualifications, and relevant experience of faculty teaching the course(s). Syllabi should include a course description and identify course credit, objectives, topics, student outcomes, texts/resources, and the basis for determining grades.

Other Changes *(describe and explain all proposed changes)*

[ ] **Program title**

[ ] **Program award**

[ ] **Mode of Delivery** (**Note**: if the change involves adding a **distance education format** to a registered program, please complete the distance education application.)

[ ] **Discontinuing a program**: indicate the date by which the program will be discontinued.[3]

[ ] **Format change** (e.g., from full-time to part-time, or to an abbreviated or accelerated semester)

a) Indicate proposed format:
b) Describe availability of courses and any change in faculty, resources, or support services:
c) Use the Sample Program Schedule to show the sequencing and scheduling of courses in the program.

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[3] If any students do not complete the program by the proposed termination date, the institution must request an extension of the registration period for the program or make other arrangements for those students.

Establishing New Programs Based on Existing Registered Programs

[X] **Creating a dual-degree program** from existing registered programs

a) Complete the following table to identify the existing programs:

	Program Title	**Degree Award**	**Program Code**
Program 1	**Public Health**	**A.S.**	20509
Program 2	**Public Health**	**B.S.**	37703

b) Proposed dual-degree program (title and award):[4] A.S./B.S. Public Health

Students seeking admission to the A.S./B.S. QCC/York Dual/Joint Degree program in Public Health must first satisfy the general requirements for entry to Queensborough: completion of either a high school diploma or a New York State Equivalency Diploma. Upon acceptance to Queensborough, students must take the CUNY Placement Exams, which measure proficiency in reading, writing, and mathematics. Students may apply to the A.S./B.S. Dual/Joint degree program after they have completed their first semester at Queensborough and earned a C or better in ENGL 101, MA 119 and BI 201 and a minimum GPA of 3.0. The criteria for retention and continuation for students enrolled in the program are to maintain a GPA of 3.0 in all required program courses (including program electives) and maintain a minimum GPA of 3.0 for the first 60 credits of the program. At Queensborough, students will also complete two writing intensive (WI) courses during their first 60 credits. The retention and completion criteria for the program are to maintain a minimum GPA of 3.0 in required program courses (including program electives) and a minimum cumulative GPA of 3.0.

[4] Only candidates with the capacity to complete the requirements of both degrees shall be admitted to a dual-degree program.

c) Courses that will be counted toward both awards:

Queensborough Community College Courses	
Course & Title	**Credits**
Required Core 1A EN 101 English Composition I	3
EN 120 English Composition II	3
Required Core 1B MA 119 College Algebra*	3
Required Core 1C BI 201 General Biology I*	4
Flexible Core 2A (Recommended ANTH 160 Anthropology of Health and Healing)	3
Flexible Core 2B – (Recommended SP 211 Speech Communications)	3
Flexible Core 2C – Creative Expression (Select one from 2C)	3
Flexible Core 2D – (Recommended PHIL 148 or SOCY 101)	3
Flexible Core 2E – BI-520 Introduction to Public Health*	4
Select one from 2A – 2E (Recommended PSYCH 101)	3
HE 103 Fundamentals of Human Nutrition	3
HE 114 Principles and Practices of Public Health	3
BI 461 General Microbiology	4
BI 503 General Epidemiology	3
IS 151 The Health of the Nations	2
MA 336 Statistics	3
BI 521 Public Health Biology	3

[ ] **Creating a new program from a concentration/track in an existing program.**

If the new program is based ***entirely*** on existing courses in a registered program, provide the current program name, program code, and the following information:

Note: this abbreviated option applies only if a master plan amendment is NOT required ***and*** there are no new courses or changes to program admissions and evaluation elements. If these conditions are not met, submit a new registration application for the proposed program.

a) Brief description of the proposed program and rationale for converting the existing coursework to a separately registered program:
b) Expected impact on existing program:
c) Adjustments the institution will make to its current resource allocations to support the program:
d) Statement confirming that the admission standards and process and evaluation methods are the same as those in the existing registered program:
e) Information from the Application for Registration of a New Program form: cover page (page 1), Sample Program Schedule form, and faculty information charts (full-time faculty, part-time faculty, and faculty to be hired)

Note: if the change involves **establishing an existing registered program at a new location**, complete a new registration application for the proposed program.

September 2009

DEPARTMENT OF BIOLOGICAL SCIENCES AND GEOLOGY
DEPARTMENT HEALTH, PHYSICAL EDUCATION AND DANCE

This revision is requested jointly by the Department of Biological Sciences and Geology and Health, Physical Education and Dance Department

Program Proposal Revision in current A.S. Public Health Program

Here is the information to include in a proposal to revise an existing degree or certificate program:

1.	**Program Name:**	A.S. Public Health		
2.	**Program Code:**	38115		
3.	**HEGIS number:**	1214.00		
4.	**Date approved by the departments HPED Biological Sciences and Geology**	**Month** 12 02	**Day** 14 08	**Year** 2016 2017
5.	**Date the changes will be effective (if approved)**	08 **Month**	25 **Day**	2017 **Year**

6.	**All text or items that will be deleted or changed should be marked with a ~~strikethrough.~~**
7.	**All new text, courses, credits, etc. should be marked by underlining.**
8.	**All text or items that will be deleted or changed should be marked with a ~~strikethrough.~~**
9.	**Show the whole set of program requirements in a From/To format (see example below)**

From:		**To:**	
Common Core	Credit	Common Core	Credits
Required Core 1A: EN-101 English Composition I	3	Required Core 1A: EN-101 English Composition I	3
Required Core 1A: EN-102 English Composition II	3	Required Core 1A: EN-102 English Composition II	3
Required Core 1B: MA-119 College Algebra*	3	Required Core 1B: MA-119 College Algebra*	3
Required Core 1C: BI-201 General Biology I*	4	Required Core 1C: BI-201 General Biology I*	4
Flexible Core 2A: World Cultures and Global Issue(Recommended ANTH 160 Anthropology of Health & Healing)	3	Flexible Core 2A: World Cultures and Global Issue(Recommended ANTH 160 Anthropology of Health & Healing)	3
Flexible Core 2B: US Experience & its Diversity (Recommended SP-211 Speech Communication)	3	Flexible Core 2B: US Experience & its Diversity (Recommended SP-211 Speech Communication)	3
Flexible Core 2C: Creative Expression	3	Flexible Core 2C: Creative Expression	3
Flexible Core 2D: Individual and Society (Recommended SOCY- 101 Introduction to Sociology)	3	Flexible Core 2D: Individual and Society (Recommended PHIL 148 Public Health Ethics or SOCY- 101 Introduction to Sociology)	3
Flexible Core 2E: BI-520 Introduction to Public Health*	4	Flexible Core 2E: BI-520 Introduction to Public Health*	4
Select one from 2A-E: (Recommended PHIL-148 Public Health Ethics	3	Select one from 2A-E: (Recommended PHIL-148 Public Health Ethics	3
Subtotal	32	Subtotal	32
Major		Major	
HE-103 Fundamentals of Human Nutrition	3	HE-103 Fundamentals of Human Nutrition	3
HE 114 ~~Foundations of Health Promotion and Disease Prevention~~	3	HE 114 Principles and Practices of Public Health	3
BI 461 General Microbiology	4	BI 461 General Microbiology	4
BI 503 General Epidemiology	3	BI 503 General Epidemiology	3
IS 151 The Health of the Nation	2	IS 151 The Health of the Nation	2
MA 336 Statistics	3	MA 336 Statistics	3
HE-103 Fundamentals of Human Nutrition	3	HE-103 Fundamentals of Human Nutrition	3
Subtotal	18	Subtotal	18
Major Electives *Advised major electives selected from the list below and guided by appropriate transfer articulations*			

BI 521 Public Health Biology	3	BI 521 Public Health Biology	3
BI 501 Environmental Health	4	BI 501 Environmental Health	4
BI 554 Research Laboratory Internship	2	BI 554 Research Laboratory Internship	2
BI 505 Current Environmental Issues	1	BI 505 Current Environmental Issues	1
HE 102 Health, Behavior and Society	2	HE 102 Health, Behavior and Society	2
HE 104 Addictions and Dependencies	3	HE 104 Addictions and Dependencies	3
HE 105 Human Sexuality	3	HE 105 Human Sexuality	3
HE 107 Mental Health: Understanding Your Behavior	3	HE 107 Mental Health: Understanding Your Behavior	3
HE 108 Health and Physical Fitness	3	HE 108 Health and Physical Fitness	3
HE 110 Cardiopulmonary Resuscitation	1	HE 110 Cardiopulmonary Resuscitation	1
HE 111 Stress Management	3	HE 111 Stress Management	3
		BI 522 Applied Biostatistics	3
		HE 202 Social and Behavior Determinants of Health	3
Subtotal	10		10
Total	60	Total	60

10. Write a Rationale for all the changes

Write a Summary for all the changes

The revision of HE 114 Foundations of Health Promotion and Disease Prevention to HE 114 Principles and Practices of Public Health to be equivalent to York College's PH 201 History and Principles of Public Health.

The addition of two 3-credit major elective courses as options in the A.S. Public Health Degree Program:
BI 522 Applied Biostatistics
HE 202 Social and Behavioral Determinants of Health

The inclusion of these courses in both the A.S. Public Health and the A.S./B.S. Public Health degree programs.

The current articulation agreement with Hunter College to be revised to reflect the inclusion of the course revision and the new courses. Additionally, the courses are to be transferable to other CUNY colleges including, Brooklyn College and Lehman College.

PHIL –148 Public Health Ethics recommended for Pathways Flexible Core 2D.

11. If the program revision includes course revisions or new courses, submit the appropriate

Course Revision form and/or New Course Proposal Form, along with the Syllabus and Course Objectives form.

Please see attached.

12. **If courses will be deleted from the program, make clear whether the courses are to be deleted from the department's offerings as well.**

No

13. **Explain briefly how students currently in the program will be able to complete the requirements**

Since the A.S. Public Health Program was launched in Fall 2016, currently enrolled QCC students are in their first semester of the program and will only be able to take the new courses once they have completed the required pre-requisites for BI 522 and HE 202 and are in their final semester at QCC.

~~**see attachment: Undergraduate_SchedulePH_York_REV 02082007**~~

DEPARTMENT HEALTH, PHYSICAL EDUCATION AND DANCE
Elimination of concentration
Departmental approval date February 08, 2017

Proposal to eliminate the Health and Behavior Concentration

Here is the information to include in a proposal to revise an existing degree or certificate program:

1.	**Program Name:**	Liberal Arts and Sciences A.A. Degree Program		
2.	**Program Code:**	24.01010		
3.	**HEGIS number:**	5649.00		
4.	**Date approved by the department**	February	8	2017
		Month	**Day**	**Year**
5.	**Date the changes will be effective (if approved)**	August	25	2017
		Month	**Day**	**Year**

6. **All text or items that will be deleted or changed should be marked with a ~~strikethrough.~~**
7. **All new text, courses, credits, etc. should be marked by underlining.**
8. **All text or items that will be deleted or changed should be marked with a ~~strikethrough.~~**
9. **Show the whole set of program requirements in a From/To format (see example below)**

From:	To:
Liberal Arts and Sciences A.A. Degree Program: Health and Behavior Concentration (one of 15 concentrations)	Liberal Arts and Sciences A.A. Degree Program: Deletion of Health and Behavior Concentration
COMMON CORE	COMMON CORE UNCHANGED

			30-34[5]
REQUIREMENTS FOR THE MAJOR			
~~Two Foreign Language courses (two sequential courses are required, level and sequence to be determined by Foreign Language Department placement)~~	~~8~~		0
~~HI-110 or HI-111 or HI-112 (if already taken in common core, one course from HI-100 series is recommended; if two History courses have been taken in common core, one additional course from PSYC-125, SOCY-290 or ANTH-160 is recommended)~~	~~3~~		0
~~SP-211 (if already taken in common core, one course from HI-100 series is recommended; if two History courses have been taken in common core, one additional course from PSYC-125, SOCY-290 or ANTH-160 is recommended)~~	~~3~~		0
~~One English course from ENGL-200 series~~	~~3~~		0
~~One science lab. course (STEM variant in common core satisfies this requirement): Applicable courses include BI-132, BI-171; CH-102, CH-111, CH-121; ET-842; PH-112~~	~~1~~		0
Sub-total:	~~14-18~~		0
ADDITIONAL MAJOR REQUIREMENTS		ADDITIONAL MAJOR REQUIREMENTS UNCHANGED	3-4
ELECTIVES OR CONCENTRATION CHOICES			
~~Health and Behavior Concentration (8-9 credits): Take HE-107 Mental Health: Understanding Your Behavior and choose from HE-104 Addictions and Dependencies, HE-105 Human Sexuality, HE-111 Stress Management, IS-151 Health of the Nations~~			
Sub-total:	~~8-9~~		0
EXISTING CONCENTRATIONS		EXISTING CONCENTRATIONS UNCHANGED	22-27
Total credits:			60

[5] The credit range accounts for those who opt to take STEM Variants in 1B, 1C, 2E, and the additional course in the flexible core.

10. Write a Rationale for all the changes

The Health and Behavior Concentration in the Liberal Arts and Sciences A.A. Degree Program has had consistent low enrollment (there are currently 7 students enrolled). While this proposal is to eliminate the concentration, students can remain in the Liberal Arts degree program and take the courses from the Health and Behavior Concentration as free electives in the Liberal Studies Concentration or they may choose another concentration. Students interested in studying Public Health at Queensborough are recommended to enroll in the A.S. Public Health.

Summary for all the changes:

Deletion of the Health and Behavior Concentration as one of 15 concentrations in the Liberal Arts and Sciences A.A. Degree Program.

11. If the program revision includes course revisions or new courses, submit the appropriate Course Revision form and/or New Course Proposal Form, along with the Syllabus and Course Objectives form.

Not applicable.

12. If courses will be deleted from the program, make clear whether the courses are to be deleted from the department's offerings as well.

The courses from the program will not be deleted from the departments' offerings. Students may take these courses to fulfill other degree requirements.

13. Explain briefly how students currently in the program will be able to complete the requirements

Students currently in the Health and Behavior concentration may complete the program in spring 2017 or choose to use the credits earned and apply them towards the Liberal Studies concentration or other LA concentration. They may also choose to enroll in the A.S. Public Health degree program. Students currently enrolled in the program will be advised of their options to make the best choice for their degree attainment and career goals.

Proposal to eliminate the Health Promotion and Disease Prevention Concentration

Here is the information to include in a proposal to revise an existing degree or certificate program:

1.	**Program Name:**	Liberal Arts and Sciences A.A. Degree Program			
2.	**Program Code:**	24.0101			
3.	**HEGIS number:**	5649.00			
4.	**Date approved by the department**	February	8	2017	
		Month	**Day**	**Year**	
5.	**Date the changes will be effective (if approved)**	August	25	2017	
		Month	**Day**	**Year**	

6.	**All text or items that will be deleted or changed should be marked with a ~~strikethrough.~~**
7.	**All new text, courses, credits, etc. should be marked by underlining.**
8.	**All text or items that will be deleted or changed should be marked with a ~~strikethrough.~~**
9.	**Show the whole set of program requirements in a From/To format (see example below)**

From:	**To:**

Liberal Arts and Sciences A.A. Degree Program: Health Promotion and Disease Prevention (one of 15 concentrations)		Liberal Arts and Sciences A.A. Degree Program: Deletion of Health Promotion and Disease Prevention	
COMMON CORE		COMMON CORE UNCHANGED	
			30-34[6]
REQUIREMENTS FOR THE MAJOR			
~~Two Foreign Language courses (two sequential courses are required, level and sequence to be determined by Foreign Languages & Literature department placement)~~	~~8~~		0
~~HI-110 or HI-111 or HI-112 (if already taken in common core, one course from HI-100 series is recommended; if two History courses have been taken in common core, one additional course from Anthropology, Economics, Sociology, Political~~	~~3~~		0
~~SP-211 (if already taken in common core, one course from HI-100 series is recommended; if two History courses have been taken in common core, one additional course from PSYC-100 series is recommended)~~	~~3~~		0
~~One English course from ENGL-200 series~~	~~3~~		0
~~One science lab. course (STEM variant in common core satisfies this requirement): Applicable courses include BI-132; BI-171; CH-102, CH-111, CH-121; ET-842; PH-112~~	~~1~~		0
Sub-total:	~~14-18~~		0
ADDITIONAL MAJOR REQUIREMENTS		ADDITIONAL MAJOR REQUIREMENTS UNCHANGED	3-4
ELECTIVES OR CONCENTRATION CHOICES			
~~Health Promotion and Disease Prevention Concentration (8-9 credits): Take HE-114 Foundations of Health Promotion and Disease Prevention and choose from IS-151 Health of the Nations, HE-105 Human Sexuality, PE-540 Introduction to Physical Fitness.~~			
Sub-total:	~~8-9~~		0
EXISTING CONCENTRATIONS		EXISTING CONCENTRATIONS UNCHANGED	22-27

[6] The credit range accounts for those who opt to take STEM Variants in 1B, 1C, 2E, and the additional course in the flexible core.

Total credits:			60

10. Write a Rationale for all the changes

The Health Promotion and Disease Concentration in the Liberal Arts and Sciences A.A. Degree Program has had consistent low enrollment. There are currently 5 students enrolled. While this proposal is to eliminate the concentration, students can remain in the Liberal Arts degree program and take the courses from the Health Promotion and Disease Prevention Concentration as free electives in the Liberal Studies Concentration or they may choose another concentration. Students interested in studying Public Health at Queensborough are recommended to enroll in the A.S. Public Health.

Summary for all the changes:

Deletion of the Health Promotion and Disease Prevention Concentration as one of 15 concentrations in the Liberal Arts and Sciences A.A. Degree Program.

11. If the program revision includes course revisions or new courses, submit the appropriate Course Revision form and/or New Course Proposal Form, along with the Syllabus and Course Objectives form.

Not applicable.

12. If courses will be deleted from the program, make clear whether the courses are to be deleted from the department's offerings as well.

The courses from the program will not be deleted from the departments' offerings. Students may take these courses to fulfill other degree requirements.

13. Explain briefly how students currently in the program will be able to complete the requirements

Students currently in the Health Promotion and Disease Prevention concentration may complete the program in spring 2017 or choose to use the credits earned and apply them towards the Liberal Studies concentration or other LA concentration. They may also choose to enroll in the A.S. Public Health degree program. Students currently enrolled in the program will be advised of their options to make the best choice for their degree attainment and career goals.

DEPARTMENT OF ENGINEERING TECHNOLOGY

Departmental approval date January 26, 2017

CT Program Revision

Here is the information to include in a proposal to revise an existing degree or certificate program:

Here is the information to include in a proposal to revise an existing degree or certificate program:

1. Dept. Name:	Engineering Technology	
2. Program Name:	**A.A.S., Computer Engineering Technology**	
3. Program Code:	01528	
4. HEGIS number:	5105	

5. Date approved by the department	01	26	2017
	Month	**Day**	**Year**
6. Date the changes will be effective (if approved)	06	31	2017
	Month	**Day**	**Year**

From:		**To:**	
A.A.S., Computer Engineering Technology		**A.A.S., Computer Engineering Technology**	
Common Core	Credits	Common Core	Credits
REQUIRED CORE 1A: ENGL-101 and ENGL-102	6	REQUIRED CORE 1A: ENGL-101 and ENGL-102	6
REQUIRED CORE 1B: MA-114 or higher [1]	4	REQUIRED CORE 1B: MA-114 or higher [1]	4
REQUIRED CORE 1C: PH-201 [2]	4	REQUIRED CORE 1C: PH-201 [2]	4
FLEXIBLE CORE 2E: PH-202 [2]	4	FLEXIBLE CORE 2E: PH-202 [2]	4
FLEXIBLE CORE 2A, 2B, 2D or 2E: Two courses	6	FLEXIBLE CORE 2A, 2B, 2D or 2E: Two courses	6
Subtotal	24	Subtotal	24
Major		Major	
ET-110 ~~Electric Circuit Analysis I~~	4	ET-110 Electric Circuit Analysis	4
~~ET-140 Sinusoidal & Transient Circuit~~	~~3~~		
ET-210 Electronics I	4	ET-210 Electronics I	4
ET-350 Computer Control Systems	4	ET-350 Computer Control Systems	4
ET-420 Computer Project Laboratory	1	ET-420 Computer Project Laboratory	1
~~ET-501 Computer Applications~~	~~1~~		
ET-502 Introduction to Computer Programming	1	ET-502 Introduction to Computer Programming	1
ET-504 Operating Systems & System	2	ET-504 Operating Systems & System	2
ET-509 ~~C++~~ Programming for Embedded Systems	1	ET-509 Programming for Embedded Systems	1
ET-540 Digital Computer Theory	4	ET-540 Digital Computer Theory	4
ET-542 Computer & Electrical Device	1	ET-542 Computer & Electrical Device	1
ET-560 Microprocessors & Microcomputers	4	ET-560 Microprocessors & Microcomputers	4

		ET-575 Introduction to C++ Programming Design and Implementation	3
ET-704 Networking Fundamentals I	4	ET-704 Networking Fundamentals I	4
MA-128 Calculus for Technical & Business	4	MA-128 Calculus for Technical & Business	4
		TECH-100 Introduction to Engineering and Technology	1
Subtotal	38		38
ET elective (choose from):		ET elective (choose from):	
ET-220, ET-230, ET-232, ET-305, ET-360, ET-375, ET-481, ET-490, ET-503, ~~ET-505,~~ ET-506, ~~ET-507,~~ ET-570, ~~ET-575~~, ET-580, ET-701, ET-705, ET-706, ET-707, ET-710, ET-712, ET-720, ET-725, ET-841, ET-842, ET-880, ET-991, ET-992, or ET-993	2	ET-140, ET-220, ET-230, ET-232, ET-305, ET-360, ET-375, ET-481, ET-490, ET-503, ET-506, ET-570, ET-580, ET-701, ET-705, ET-706, ET-707, ET-710, ET-712, ET-720, ET-725, ET-841, ET-842, ET-880, ET-991, ET-992, or ET-993	2
Total	64	Total	64
11A. Program Note: From:		To:	
11B. Course Note: From:		To:	
[1] *Students may substitute MA-440 and MA-441 for MA-114 and MA-128.*		[1] *Students may substitute MA-440 and MA-441 for MA-114 and MA-128.*	
[2] *PH-301 and PH-302 or PH-411, PH-412 and PH-413 may be substituted for PH-201 and PH-202.*		[2] *PH-301 and PH-302 or PH-411, PH-412 and PH-413 may be substituted for PH-201 and PH-202.*	

9. Write a Rationale for all the changes

Overview

The proposed Computer Engineering Technology (CT) curriculum represents a balanced curriculum of computer hardware, software, system design, liberal arts and science, and communications, to prepare students for the current and future computer engineering technology needs of industry. Furthermore it will provide Computer Engineering Technology students with the prerequisites to continue on for a four-year degree and introduces additional opportunity for students to engage in a credit bearing coop education experience.

This proposal maintains the CUNY 64-credit constraint and is in full compliance with the new ETAC/ABET guidelines. This revision fixes discrepancies that have been around for many years; provides common courses for the freshman semester to make advisement easier; allow students in remedial math more options to progress in the degrees; creates an elective in the TC program where there was none before. Existing courses are repositioned in the curriculum and no new courses are created. Curricular flow is modified through pre and co-requisite adjustments and in some cases course outlines are revised. The proposal is the outcome of many hours of discussion among the faculty and staff and will benefit our Computer Engineering Technology students without compromising

academic standards. We would be happy answer any questions that the College Curriculum Committee may have or come to one of your meeting to further discuss this proposal.

Please find below the individual proposed changes with their respective rationale.

Curricular Change 1 - TECH-100, Introduction to Engineering and Technology, 3 Laboratory Hours/1 Credit, will replace ET-501, Computer Applications, 3 Laboratory Hours/1 Credit. TECH-100 then becomes a prerequisite for ET-509.

Rationale 1 - Students often come to Engineering Technology without a clear sense of the disciplines it encompasses and what they entail. Before a long-term commitment is made to study in Computer, Electronic or Mechanical Engineering Technology, it is wise to give an overview of the profession and other related disciplines. For those students who continue on in the major, this overview will give them a firm foundation in technical skills on which to build future studies. TECH-100 was created for the Mechanical Engineering Technology Curriculum and has been found to be very successful and useful to students. Our goal is to have all technology students take this course. Furthermore, we feel that ET-501Computer Applications is less critical to technology students because many of the computer applications are addressed in other courses.

ET-575, Introduction to C++ Programming Design and Implementation, 2 Lecture Hours, 2 Lab Hours/3 Credits, will replace ET-140, Transient and Sinusoidal Circuit Analysis, 2 Lecture Hours, 1 Recitation Hour, 3 Laboratory Hours/3 Credits. ET-110, Electric Circuit Analysis I, will be revised with some introductory topics from ET-140. ET-575 is designed to be a fully compatible course with other degree programs at four-year colleges. ET-505 and ET-507 overlap with ET-575, so they are to be deleted as electives.

Rationale 2 - It has become more and more important for computer engineering technology students to develop strong computer programming skills. Transferability and the competition offered by the growth of coding boot camps are two reasons why our students need a comprehensive programming course. The current curriculum has two, one credit programming courses: ET-502 focuses on Visual Basic Programming and ET-509 focuses on Embedded Processing and serve to prepare students for subsequent courses in the curriculum. While both courses do transfer to New York City College of Technology and SUNY Farmingdale, they transfer as elective credit. Faculty members at SUNY Farmingdale have specifically mentioned the need for our students to complete an in depth programming class in C++ to fully prepare them for the Farmingdale technology curricula. ET faculty believe that the requirement of a traditional and complete computer programming course will improve articulation and better serve computer engineering technology students to compete in the workplace.

ET-575 is designed to be a fully compatible course with other degree programs. ET-505 and the follow-on course ET-507 are be deleted as electives in CT because they overlap in content with ET-575 which is now required in the CT curriculum.

To make room in the curriculum for ET-575, ET-140, Transient and Sinusoidal Circuit Analysis, will be

removed as a CT program requirement. It will remain part of the ET curriculum and will be available as an elective course to CT students. A strong knowledge of computer programming has become more important for CT majors than the additional AC Circuit Analysis topics covered in ET-140. Some AC Analysis will be added to ET-110, Electric Circuit Analysis I, to prepare students to take ET-210, Electronics I.

Curricular Change 2 - ET-210 course revision to emphasize integrated circuits.

Rationale 3 - Due to the ever-increasing complexity of electronic circuits, integrated circuits such as operational amplifiers have become essential to the field. Therefore ET-210 will be modified to include the topic of basic operational amplifiers and will spend less time on discrete components such as diodes and transistors.

10. Write a Summary for all the changes

1) TECH-100, Introduction to Engineering and Technology, 3 Laboratory Hours/1 Credit, will replace ET-501, Computer Applications, 3 Laboratory Hours/1 Credit, for degree credit and as a prerequisite.

2) ET-509, C++ Programming for Embedded Systems is renamed to "Programming for Embedded Systems", and TECH-100 becomes a prerequisite for ET-509.

3) ET-575, Introduction to C++ Programming Design and Implementation, 2 Lecture Hours, 2 Laboratory Hours/ 3 Credits, will replace ET-140, Transient and Sinusoidal Circuit Analysis, 2 Lecture Hours, 1 Recitation Hour, 3 Laboratory Hours/3 Credits.

4) ET-110, Electric Circuit Analysis I, will be modified to include additional AC topics to prepare students for ET-210 in lieu of ET-140.

5) ET-210, Electronics I, will be modified to include more currently relevant topics and the prerequisite changes from ET-140 to ET-110.

11. If the program revision includes course revisions or new courses, submit the appropriate Course Revision form and/or New Course Proposal Form, along with the Syllabus and Course Objectives form.

The course revision forms are attached for the following actions:
ET-110 and ET-210 outlines are revised.
ET-210 and ET-509 prerequisites are modified.

12. If courses will be deleted from the program, make clear whether the courses are to be deleted from the department's offerings as well.

1) ET-140 will be deleted from the CT program, but it will remain in the ET program and be offered as an elective in CT and TC.
2) The department will continue to offer ET-501 in support of other degrees as well as students who choose to be grandfathered into the previous curriculum.

13. Explain briefly how students currently in the program will be able to complete the requirements

See above.

ET Program Revision

Here is the information to include in a proposal to revise an existing degree or certificate program:

1.	**Dept. Name:**	Engineering Technology		
2.	**Program Name:**	**A.A.S., Electronic Engineering Technology**		
3.	**Program Code:**	01532		
4.	**HEGIS number:**	5310		
5.	**Date approved by the department**	01	26	2017
		Month	**Day**	**Year**
6.	**Date the changes will be effective (if approved)**	06	31	2017
		Month	**Day**	**Year**

From:		**To:**	
A.A.S., Electronic Engineering Technology		**A.A.S., Electronic Engineering Technology**	
Common Core	Credits	Common Core	Credits
REQUIRED CORE 1A: ENGL-101 and ENGL-102	6	REQUIRED CORE 1A: ENGL-101 and ENGL-102	6
REQUIRED CORE 1B: MA-114 or higher [1]	4	REQUIRED CORE 1B: MA-114 or higher [1]	4
REQUIRED CORE 1C: PH-201 [2]	4	REQUIRED CORE 1C: PH-201 [2]	4
FLEXIBLE CORE 2E: PH-202 [2]	4	FLEXIBLE CORE 2E: PH-202 [2]	4
FLEXIBLE CORE 2A, 2B, 2D or 2E: Two courses	6	FLEXIBLE CORE 2A, 2B, 2D or 2E: Two courses	6
Subtotal	24	Subtotal	24
Major		Major	
ET-110 ~~Electric Circuit Analysis I~~	4	ET-110 Electric Circuit Analysis	4
ET-140 Sinusoidal & Transient Circuit	3	ET-140 Sinusoidal & Transient Circuit Analysis	3
ET-210 Electronics I	4	ET-210 Electronics I	4
ET-220 Electronics II	4	ET-220 Electronics II	4
ET-230 Telecommunications I	4	ET-230 Telecommunications I	4
ET-320 Electrical Control Systems	3	ET-320 Electrical Control Systems	3
ET-410 Electronic Project Laboratory	1	ET-410 Electronic Project Laboratory	1
~~ET-501 Computer Applications~~	~~1~~		
ET-509 ~~C++~~ Programming for Embedded Systems	1	ET-509 Programming for Embedded Systems	1
~~ET-510 Introduction to Digital Electronics~~	~~4~~	ET-540 Digital Computer Theory	4
ET-542 Computer & Electrical Device	1	ET-542 Computer & Electrical Device	1
ET-560 Microprocessors & Microcomputers	4	ET-560 Microprocessors & Microcomputers	4

MA-128 Calculus for Technical & Business	4	MA-128 Calculus for Technical & Business	4
		TECH-100 Introduction to Engineering and Technology	1
Subtotal	38		38

ET elective (choose from):		ET elective (choose from):	
ET-232, ET-305, ET-360, ET-375, ET-481, ET-490, ET-502, ET-503, ET-504, ET-505, ET-506, ET-507, ET-570, ET-575, ET-580, ET-701, ET-704, ET-705, ET-710, ET-712, ET-720, ET-725, ET-841, ET-842, ET-880, ET-991, ET-992, or ET-993	2	ET-232, ET-305, ET-360, ET-375, ET-481, ET-490, ET-502, ET-503, ET-504, ET-505, ET-506, ET-507, ET-570, ET-575, ET-580, ET-701, ET-704, ET-705, ET-710, ET-712, ET-720, ET-725, ET-841, ET-842, ET-880, ET-991, ET-992, or ET-993	2
Total	64	Total	64
Comments		Comments	
[1] *Students may substitute MA-440 and MA-441 for MA-114 and MA-128.*		[1] *Students may substitute MA-440 and MA-441 for MA-114 and MA-128.*	
[2] *PH-301 and PH-302 or PH-411, PH-412 and PH-413 may be substituted for PH-201 and PH-202.*		[2] *PH-301 and PH-302 or PH-411, PH-412 and PH-413 may be substituted for PH-201 and PH-202.*	

9. Write a Rationale for all the changes

Overview

The proposed Computer Engineering Technology (CT) curriculum represents a balanced curriculum of computer hardware, software, system design, liberal arts and science, and communications, to prepare students for the current and future computer engineering technology needs of industry. Furthermore it will provide Computer Engineering Technology students with the prerequisites to continue on for a four-year degree and introduces additional opportunity for students to engage in a credit bearing coop education experience.

This proposal maintains the CUNY 64-credit constraint and is in full compliance with the new ETAC/ABET guidelines. This revision fixes discrepancies that have been around for many years; provides common courses for the freshman semester to make advisement easier; allows students in remedial math more options to progress in the degree. Existing courses are repositioned in the curriculum and no new courses are proposed. Curricular flow is modified through pre and co-requisite adjustments and in some cases course outlines are revised. Requested revisions for ET-110 and ET-210 are primarily aimed at the CT and TC programs. The topics of AC circuits and operational amplifiers will continue to be addressed at greater length in ET-140 and ET-220, respectively. The proposal is the outcome of many hours of discussion among the faculty and staff and will benefit our Computer Engineering Technology students without compromising academic standards. We would be happy answer any questions that the College Curriculum Committee may have or come to one of your meeting to further discuss this proposal.

Please find below the individual proposed changes with their respective rationale.

Curricular Change 3 - TECH-100, Introduction to Engineering and Technology, 3 Laboratory Hours/1 Credit, will replace ET-501, Computer Applications, 3 Laboratory Hours/1 Credit. TECH-100 then becomes a prerequisite for ET-509.

Rationale 1 - Students often come to Engineering Technology without a clear sense of the disciplines it encompasses and what they entail. Before a long-term commitment is made to study in Computer, Electronic or Mechanical Engineering Technology, it is wise to give an overview of the profession and other related disciplines. For those students who continue on in the major, this overview will give them a firm foundation in technical skills on which to build future studies. TECH-100 was created for the Mechanical Engineering Technology Curriculum and has been found to be very successful and useful to students. Our goal is to have all technology students take this course. Furthermore, we feel that ET-501 Computer Applications is less critical to technology students because many of the computer applications are addressed in other courses.

Curricular Change 4 - ET-540, Digital Fundamentals, 3 Lecture Hours, 3 Laboratory Hours/4 Credits will replace ET-510, Introduction to Digital Electronics, 3 Lecture Hours, 3 Laboratory Hours/4 Credits

Rationale 2 - As the growth and importance of microprocessors has grown it became paramount that all ET, CT, and TT students take a comprehensive course in microprocessors. A curriculum revision a number of years ago required all students to take ET-560, Microprocessors and Microcomputers. At that time ET students and CT students each required a different treatment of the prerequisite for ET-560. Therefore ET students took ET-510, Introduction to Digital Electronics, while CT and TT students took ET-540, Digital Fundamentals. Over the years the differences have diminished or completely gone away. Thus today these courses have become very similar. By having all students take the same course all students will have greater scheduling choices. Furthermore, ET-540 articulates to technology programs at New York City College of Technology and SUNY Farmingdale technology programs as well as CCNY Engineering Programs.

Curricular Change 5 - ET-110, Electric Circuit Analysis I, will be revised to include some introductory AC topics from ET-140. The topics of AC circuits and operational amplifiers will continue to be addressed at greater length in ET-140 and ET-220, respectively.

Rationale 3 - Due to the curricular changes for the CT program, some AC Analysis will be added to ET-110, Electric Circuit Analysis I, to prepare students to take ET-210, Electronics I.

Curricular Change 6 - ET-210 course revision to emphasize integrated circuits.

Rationale 4 - Due to the ever-increasing complexity of electronic circuits, integrated circuits such as operational amplifiers have become essential to the field. Therefore ET-210 will be modified to include the topic of basic operational amplifiers and will spend less time on discrete components such as diodes and transistors.

Curricular Change 7 - ET-230, Telecommunications I, prerequisite is changed from ET-220, Electronics II, to ET-210, Electronics I.

Rationale 5 - AC topics and operational amplifiers are moved earlier into the curriculum, thus ET-210 is now an appropriate prerequisite for ET-230.

10. Write a Summary for all the changes

6) TECH-100, Introduction to Engineering and Technology, 3 Laboratory Hours/1 Credit, will replace ET-501, Computer Applications, 3 Laboratory Hours/1 Credit.

7) ET-509, C++ Programming for Embedded Systems is renamed to Programming for Embedded Systems, and TECH-100 becomes a prerequisite for ET-509.

8) ET-540, Digital Fundamentals, 3 Lecture Hours, 3 Laboratory Hours/4 Credits replaces ET-510, Introduction to Digital Electronics, 3 Lecture Hours, 3 Laboratory Hours/4 Credits

9) ET-230, Telecommunications I, ET-210 replaces ET-220 as the prerequisite course.

11. If the program revision includes course revisions or new courses, submit the appropriate Course Revision form and/or New Course Proposal Form, along with the Syllabus and Course Objectives form.

The course revision forms are attached for the following actions:
ET-110 and ET-210 outlines are revised.
ET-210, ET230 and ET-509 prerequisites are modified.

12. If courses will be deleted from the program, make clear whether the courses are to be deleted from the department's offerings as well.

1) The department will continue to offer ET-501 in support of other degrees as well as students who choose to be grandfathered into the previous curriculum.
2) ET-510 will be deleted from the department's offerings.

13. Explain briefly how students currently in the program will be able to complete the requirements

Students requiring ET-510 will be able to take ET-540 as a substitution.

TC Program Revision

Here is the information to include in a proposal to revise an existing degree or certificate program:

1. Dept. Name:	Engineering Technology			
2. Program Name:	**A.A.S., Telecommunications Technology**			
3. Program Code:	21057			
4. HEGIS number:	5310			
5. Date approved by the	01	26	2017	

department

6. **Date the changes will be effective (if approved)**

Month	Day	Year
06	31	2017
Month	**Day**	**Year**

From:		**To:**	
A.A.S., Telecommunications Technology		**A.A.S., Telecommunications Technology**	
Common Core	Credits	Common Core	Credits
REQUIRED CORE 1A: ENGL-101 and ENGL-102	6	REQUIRED CORE 1A: ENGL-101 and ENGL-102	6
REQUIRED CORE 1B: MA-114 or higher [1]	4	REQUIRED CORE 1B: MA-114 or higher [1]	4
REQUIRED CORE 1C: PH-201 [2]	4	REQUIRED CORE 1C: PH-201 [2]	4
FLEXIBLE CORE 2E: PH-202 [2]	4	FLEXIBLE CORE 2E: PH-202 [2]	4
FLEXIBLE CORE 2A, 2B, 2D or 2E: Two courses	6	FLEXIBLE CORE 2A, 2B, 2D or 2E: Two courses	6
Subtotal	24	Subtotal	24
Major		Major	
ET-110 ~~Electric Circuit Analysis I~~	4	ET-110 Electric Circuit Analysis	4
~~ET-140 Sinusoidal & Transient Circuit~~	~~3~~		
ET-210 Electronics I	4	ET-210 Electronics I	4
ET-230 Telecommunications I	4	ET-230 Telecommunications I	4
~~ET-231 Telecommunications II~~	~~4~~		
		ET-232 Wireless Mobile Communication	3
~~ET-501 Computer Applications~~	~~1~~		
~~ET-502 Introduction to Computer Programming~~	~~1~~	ET-509 Programming for Embedded Systems	1
ET-540 Digital Computer Theory	4	ET-540 Digital Computer Theory	4
ET-560 Microprocessors & Microcomputers	4	ET-560 Microprocessors & Microcomputers	4
ET-704 Network Fundamentals I	4	ET-704 Network Fundamentals I	4
ET-705 Network Fundamentals II	4	ET-705 Network Fundamentals II	4
MA-128 Calculus for Technical & Business	4	MA-128 Calculus for Technical & Business	4
		TECH-100 Introduction to Engineering and Technology	1
Subtotal	~~41~~		37

	ET elective (choose from):

		ET-140, ET-220, ET-305, ET-360, ET-375, ET-481, ET-490, ET-502, ET-503, ET-504, ET-505, ET-506, ET-507, ET-570, ET-575, ET-580, ET-701, ET-706, ET-707, ET-710, ET-712, ET-720, ET-725, ET-841, ET-842, ET-880, ET-991, ET-992, or ET-993	3
~~Total~~	~~65~~	Total	64
Comments		Comments	
[1] *Students may substitute MA-440 and MA-441 for MA-114 and MA-128.*		[1] *Students may substitute MA-440 and MA-441 for MA-114 and MA-128.*	
[2] *PH-301 and PH-302 or PH-411, PH-412 and PH-413 may be substituted for PH-201 and PH-202.*		[2] *PH-301 and PH-302 or PH-411, PH-412 and PH-413 may be substituted for PH-201 and PH-202.*	

9. Write a Rationale for all the changes

Overview

The proposed changes to the TC curriculum reduce the number of required credits from 65 to 64 and bring the program into alignment with other A.A.S. curricula. There are no changes to the general education and liberal arts and sciences course requirements. Furthermore it will provide students with the prerequisites to continue on for a four-year degree and provides a new opportunity for students to engage in elective credits for the degree including a credit bearing coop education experience.

The Engineering Technology Department strives to keep all its curriculums up to date in order to provide our students with the best preparation for current jobs and for successful transfer to quality baccalaureate programs upon graduation. This revision proposal is fully compliant with the Engineering Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ETAC of ABET) criteria. Existing courses are repositioned in the curriculum and no new courses are proposed. Curricular flow is modified through pre and co-requisite adjustments and in some cases course outlines are revised.

Please find below the individual proposed changes with their respective rationale.

Curricular Change 8 - TECH-100, Introduction to Engineering and Technology, 3 Laboratory Hours/1 Credit, will replace ET-501, Computer Applications, 3 Laboratory Hours/1 Credit. TECH-100 then becomes a prerequisite for ET-509.

Rationale 1 - Students often come to Engineering Technology without a clear sense of the disciplines it encompasses and what they entail. Before a long-term commitment is made to study in Computer, Electronic or Mechanical Engineering Technology, it is wise to give an overview of the profession and other related disciplines. For those students who continue on

in the major, this overview will give them a firm foundation in technical skills on which to build future studies. TECH-100 was created for the Mechanical Engineering Technology Curriculum and has been found to be very successful and useful to students. Our goal is to have all technology students take this course. Furthermore, we feel that ET-501Computer Applications is less critical to technology students because many of the computer applications are addressed in other courses.

Curricular Change 9 - ET-232, Wireless Mobile Communication, 3 Lecture Hours/3 Credits, will replace ET-140, Transient and Sinusoidal Circuit Analysis, 2 Lecture Hours, 1 Recitation Hour, 3 Laboratory Hours/3 Credits. ET-110 will replace ET-140 as the pre-requisite for ET-210.

Rationale 2 - 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).

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 and is a necessary course in order to keep the telecommunications curriculum current and up-to-date.

Students will now progress directly from ET-110, Electric Circuit Analysis, to ET-210, Electronics I. ET-110 will be modified include an introduction to AC circuits to support this transition. This structure is compatible with the Telecommunications program at Farmingdale. ET-110 will be renamed to clarify that there is no follow-on electric circuit analysis course.

Curricular Change 10 - ET-Electives/3 Credits will replace ET-231, Telecommunications II, 3 Lecture Hours, 3 Laboratory Hours/4 Credits

Rationale 3 - Few professions have grown as rapidly as Telecommunications Technology. Technological growth has led to almost daily change. The continued growth makes the flexibility of elective courses extremely important. Current topics in telecommunications like cyber security, mobile technology, the internet, computer maintenance, operating systems, and computer programming can be made available to meet student interest and industry requirements. The implementation of elective

courses will help to keep the curriculum up to date with the latest changes in the telecommunications industry. It will also give students choices to pursue their personal interests and obtain the academic and technical training needed to compete for a career in this field.

Telecommunications Technology students need to be exposed to many areas of telecommunications in order to keep in sync with this fast changing global marketplace. ET-231, Telecommunications II, will be removed as a program requirement but will remain as an elective for Telecommunications Technology students.

Curricular Change 11 - ET-509, 3 Laboratory Hours /1 Credit will replace ET-502, 3 Laboratory Hours /1Credit

Rationale 4 - This revision allows students to take all required prerequisites within the TC degree for ET-560. Both courses are introductory programming classes for the same amount of credit and hours. However, ET-509 introduces Assembly Language that is a prerequisite for ET-560.

Curricular Change 12 - Pre-requisites for ET-230, Telecommunications I, 3 Lecture Hours, 3 Laboratory Hours /4 credits will be changed from ET-220, Electronics II, to ET-210, Electronics I.

Rationale 5 - The current prerequisite, ET-220, has not been in the TC curriculum for many years. The revision of ET-210 to include operational amplifiers will appropriately support students to take ET-230.

10. Write a Summary for all the changes

1) TECH-100, Introduction to Engineering and Technology, 3 Laboratory Hours/1 Credit, will replace ET-501, Computer Applications, 3 Laboratory Hours/1 Credit.

2) ET-232, Wireless Mobile Communication, 3 Lecture Hours/3 Credits, will replace ET-140, Transient and Sinusoidal Circuit Analysis, 2 Lecture Hours, 1 Recitation Hour, 3 Laboratory Hours/3 Credits

3) ET-110, Electric Circuit Analysis, will be modified to include an introduction to AC analysis. ET-110 will be renamed from “Electric Circuit Analysis I” to simply “Electric Circuit Analysis”.

4) ET-Electives/3 Credits will replace ET-231, Telecommunications II, 3 Lecture Hours, 3 Laboratory Hours/4 Credits

5) ET-509, Programming for Embedded Systems, 3 Laboratory Hours /1 Credit will replace ET-502, Introduction to Computer Programming, 3 Laboratory Hours /1 Credit

6) Pre-requisites for ET-230, Telecommunications I, 3 Lecture Hours, 3 Laboratory Hours /4 credits will be changed from ET-220, Electronics II, to ET-210, Electronics I.

11. If the program revision includes course revisions or new courses, submit the appropriate Course Revision form and/or New Course Proposal Form, along with the Syllabus and Course Objectives form.

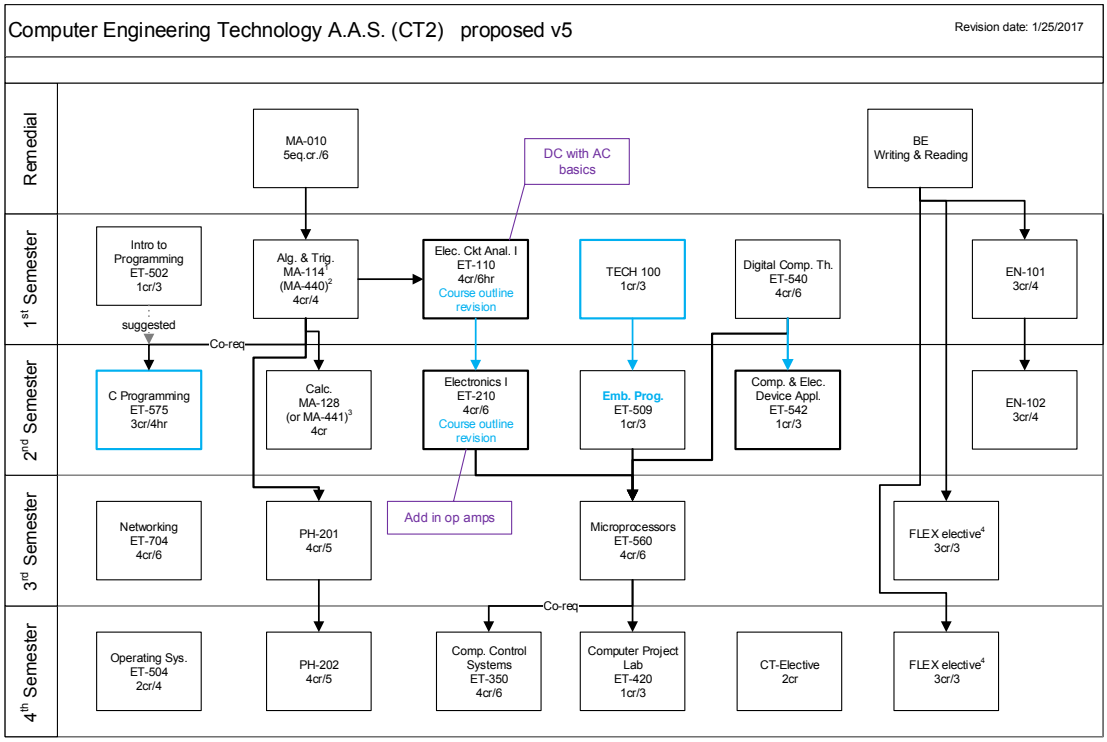
The course revision forms are attached for the following actions:
ET-110 and ET-210 outlines are revised.
ET-210, ET-230 and ET-509 prerequisites are modified.

12. If courses will be deleted from the program, make clear whether the courses are to be deleted from the department's offerings as well.

3) The department will continue to offer ET-501 in support of other degrees as well as students who choose to be grandfathered into the previous curriculum.
4) ET-140 will continue to be required for the ET degree. It will be offered as an elective for the CT and TC degrees.
5) ET-231 will be offered as an elective.
6) ET-502 will continue to be required in the CT degree and offered as an elective for the CT and TC degrees.

13. Explain briefly how students currently in the program will be able to complete the requirements

Students requiring ET-510 will be allowed to take ET-540 as a substitution.



[1] Taking both MA-119 & MA-121is equivalent to MA-114
[2] Must take MA-114 or equivalent before MA-440
[3] Must take MA-440 before MA-441
[4] Requires passing BE reading only. Elective chosen from FLEX IIA, B, D or E (ONLY HI 100 series, ANTH, CRIM101 OR 102, ECON, PLSC, PSYCH, OR SOCY)

CT Electives:
ET-230 Telecommunications 4cr/6hr
ET-232 Mobile communications 3hr/3cr
ET-375 Robotics 4cr/6hr
ET-481 PC Tech (A+) 2cr/4hr

ET-705 Net Fund. II 4cr/5hr
ET-710 Web Tech. I 4cr/6hr,
ET-712 JavaScript Prog. 3cr/4hr,
ET-725 Security 3cr/3hr
ET-585 Obj. Oriented Prog. 3cr/4
ET-991, 992, 993 Coop Ed.

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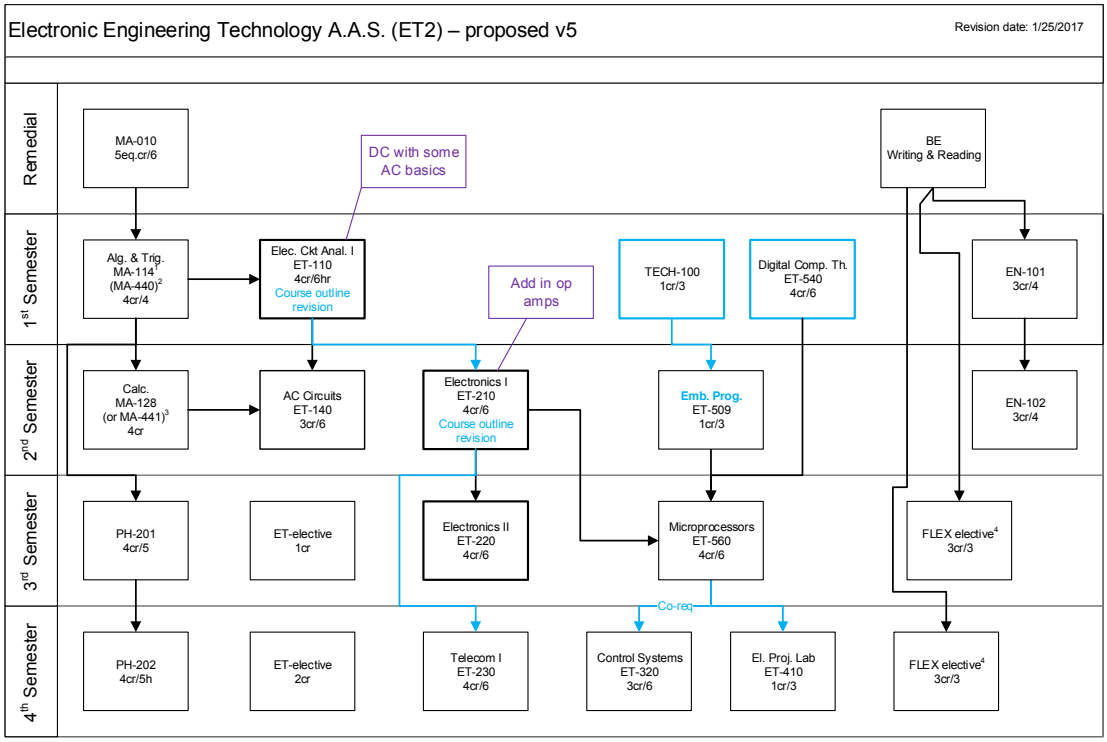

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ET Electives:
ET-305 Transients & Elec. Trans 2cr/3hr,
ET-360 Electronics & Automation for the Home 4cr/6hr
ET-375 Robotics 4cr/6hr
ET-481 PC Tech (A+) 2cr/4hr
ET-502 Intro to Programming 1cr/3hr
ET-504 Operating Systems Deployment 2cr/4hr

ET-505 C++ 4cr/6hr
ET-575 C Programming 3cr/3hr
ET-704 Net. Fund. I 4cr/6hr
ET-725 Computer Security 3hr/3cr
ET-991, 992, 993 Coop Ed.

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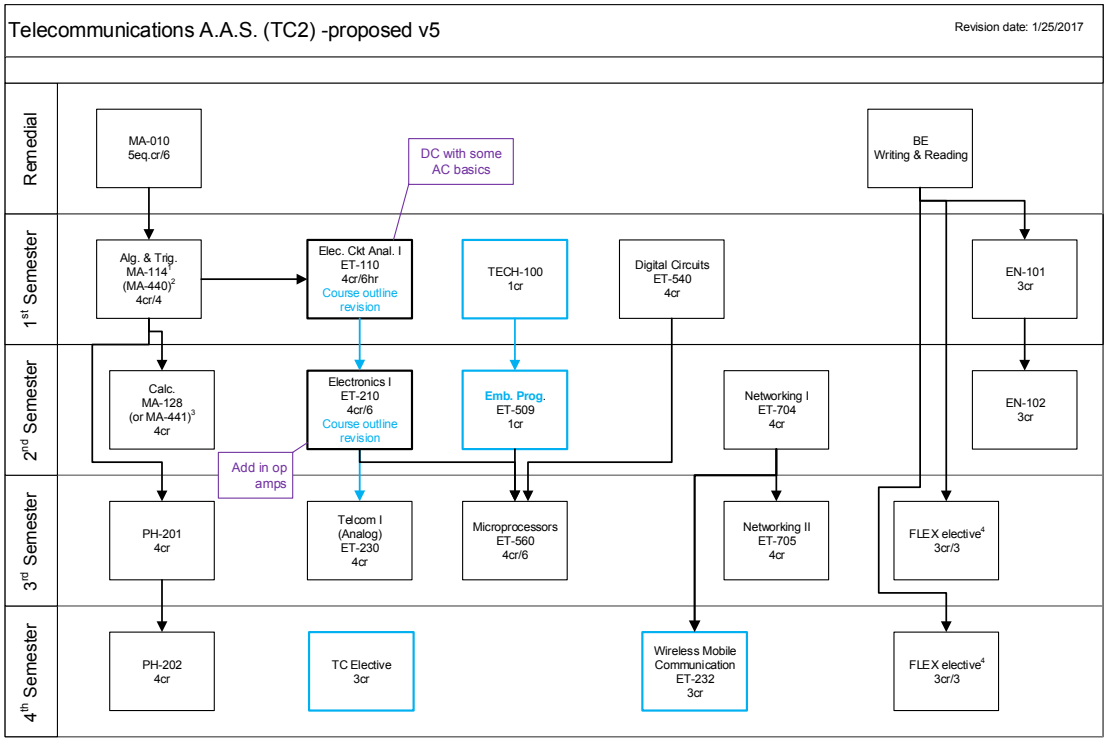

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[4] Requires passing BE reading only. Elective chosen from FLEX IIA, B, D or E (ONLY HI 100 series, ANTH, CRIM101 OR 102, ECON, PLSC, PSYCH, OR SOCY)

TC Electives:
ET-140 AC Circuits
ET-220 Electronics II
ET-375 Robotics
ET-360 Home Automation
ET-481 PC Repair

ET-504 Operating system deployment.
ET-570 Mobile Apps
ET-575 C programming
ET-710 Web design
ET-725 Security
ET-991. 992, 993 – Coop. Ed

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