KINGSBOROUGH COMMUNITY COLLEGE
The City University of New York

CURRICULUM TRANSMITTAL COVER PAGE

Department: Physical Sciences **Date:** 9/21/2020

Title Of Course/Degree/Concentration/Certificate: A.S. Engineering Science

Change(s) Initiated: (Please check)

- ☐ **Closing of Degree**
- ☐ **Closing of Certificate**
- ☐ **New Certificate Proposal**
- ☐ **New Degree Proposal**
- ☐ **New Course**
- ☐ **New 82 Course (Pilot Course)**
- ☐ **Deletion of Course(s)**
- ☒ **Change in Degree or Certificate**
- ☐ **Change in Degree: Adding Concentration**
- ☐ **Change in Degree: Deleting Concentration**
- ☐ **Change in Prerequisite, Corequisite, and/or Pre/Co-requisite**
- ☐ **Change in Course Designation**
- ☐ **Change in Course Description**
- ☐ **Change in Course Title, Number, Credits and/or Hours**
- ☐ **Change in Academic Policy**
- ☐ **Pathways Submission:**
  - ☐ **Life and Physical Science**
  - ☐ **Math and Quantitative Reasoning**
  - ☐ **A. World Cultures and Global Issues**
  - ☐ **B. U.S. Experience in its Diversity**
  - ☐ **C. Creative Expression**
  - ☐ **D. Individual and Society**
  - ☐ **E. Scientific World**
- ☐ **Change in Program Learning Outcomes**
- ☐ **Other (please describe):** _____

PLEASE ATTACH MATERIAL TO ILLUSTRATE AND EXPLAIN ALL CHANGES

DEPARTMENTAL ACTION

Action by Department and/or Departmental Committee, if required:

Date Approved: _____ **Signature, Committee Chairperson:** _____

If submitted Curriculum Action affects another Department, signature of the affected Department(s) is required:

Date Approved: _____ **Signature, Department Chairperson:** _____

Date Approved: _____ **Signature, Department Chairperson:** _____

I have reviewed the attached material/proposal

Signature, Department Chairperson: John Mikalopas

Revised/Augl.2018/AK

KINGSBOROUGH
COMMUNITY COLLEGE
★ DREAMS BEGIN HERE ★

TO: FALL 2020 Curriculum Committee

FROM: John Mikalopas, Ph.D. Professor and Chair, Department of Physical Sciences

DATE: September 21, 2020

RE: Change Degree Requirements for the A.S. Engineering Science

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The Department of Physical Sciences is proposing a change in degree requirements for the A.S. Engineering Science.

Change:

1. Addition of MAT 9B0 – College Algebra for STEM Majors, under Required Core: Mathematics and Quantitative Reasoning (MQR)

Rationale for Change:

These changes are necessary based on the proposed new course, MAT 9B0 – College Algebra for STEM Majors, by the Department of Mathematics and Computer Science to the Fall 2020 Curriculum Committee.

Add/Delete/Change	A.S. ENGINEERING SCIENCE	
	HEGIS: 5609.00	
	PROGRAM CODE: 87212	
	CUNY CORE	**CREDITS**
	REQUIRED CORE: (4 Courses, 13 Credits)	**13**
	When Required Core Courses are specified for a category, they are required for the major	
	ENG 1200 - Composition I	3
	ENG 2400 - Composition II	3
	Mathematical & Quantitative Reasoning*:	3
ADD	**MAT 9B0 - College Algebra for STEM Majors or**	
	MAT 900 - College Algebra or	
	MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics or	
	MAT 1500 – Calculus I	
	Life and Physical Sciences*:	4
	CHM 1100 - General Chemistry I	
	FLEXIBLE CORE: (6 Courses, 20 Credits)	**20**
	When Flexible Core Courses are specified for a category, they are required for the major. One course from each Group A to D (Group E is satisfied by the courses shown). No more than two courses can be selected from the same discipline.	
	A. World Cultures and Global Issues	
	B. U.S. Experience In Its Diversity	
	C. Creative Expression	
	D. Individual & Society	
	E. Scientific World*:	
	CHM 1200 - General Chemistry II	
	PHY 1300 – Advanced General Physics I	
	DEPARTMENT REQUIREMENTS (9 to 12 Courses, 28 to 37 Credits)	**28 - 37**
	Additional Physical Sciences Requirements (4 Courses, 13 Credits)	**13**
	PHY 1400 – Advanced General Physics II	4
	EGR 2100 – Engineering Design	3
	EGR 2200 – Introduction to Electrical Engineering	3
	EGR 2300 – Introduction to Engineering Thermodynamics	3
	Additional Mathematics Requirements (5 - 8 Courses, 15 - 24 Credits)	**15 - 24**
	Select five (5) to eight (8) additional courses beyond the Mathematical and Quantitative Reasoning (MQR) course from the following:	
	CS 1200 – Introduction to Computing	
	MAT 1000 - College Trigonometry^	
	MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics (Recommended)	
	MAT 1500 - Calculus I (Recommended)	
	MAT 1600 - Calculus II (Recommended)	
	MAT 2100 - Calculus III	
	MAT 5500 - Differential Equations	
	MAT 5600 - Linear Algebra	

	ELECTIVES: 0 credits sufficient to meet the required total of 61 to 70 credits for the degree.	**0**
	TOTAL CREDITS: 61 - 70	**61 - 70**
	*This program has a waiver to require particular courses in the Common Core, otherwise more than the minimum credits for the degree may be necessary.	
	^ Depending on Math placement, students may be required to select MAT 1000	

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