KINGSBOROUGH COMMUNITY COLLEGE The City University of New York

CURRICULUM TRANSMITTAL COVER PAGE

| Department: | Date: |
|---|--|
| Title Of Course/Degree/Concentration/Certi | ficate: |
| Change(s) Initiated: (Please check) | |
| ☐ Closing of Degree | ☐ Change in Degree or Certificate |
| ☐ Closing of Certificate | ☐ Change in Degree: Adding Concentration |
| New Certificate Proposal | ☐ Change in Degree: Deleting Concentration |
| New Degree Proposal | ☐ Change in Prerequisite, Corequisite, and/or Pre/Co-requisite |
| ☐ New Course | ☐ Change in Course Designation |
| ☐ New 82 Course (Pilot Course) | ☐ Change in Course Description |
| ☐ Deletion of Course(s) | ☐ 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 |
| П ск : Р I : о | ☐ E. Scientific World |
| ☐ Change in Program Learning Ou☐ Other (please describe): | |
| Other (please describe): | |
| | |
| PLEASE ATTACH MATERIAL TO ILLUS | STRATE AND EXPLAIN ALL CHANGES |
| | |
| DEPARTMENTAL ACTION | |
| Action by Department and/or Depar | tmental Committee, if required: |
| indicate of a special content of a separation | |
| Date Approved:Sign | ature, Committee Chairperson: |
| If submitted Curriculum Action affe required: | cts another Department, signature of the affected Department(s) is |
| Date Approved:Signa | nture, Department Chairperson: |
| Date Approved:Signa | nture, Department Chairperson: |
| I have reviewed the attached materia | al/proposal |
| Signature, Department Chairperson | : |



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. Physics

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

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.

CURRENT

| Add/Delete/Change | A.S. PHYSICS | |
|-------------------|---|---------|
| | HEGIS: 5619.00 | |
| | PROGRAM CODE: 01042 | |
| | | |
| | 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*: | 4 |
| | Mathematical and 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 |
| | TELEVISEE COVERSON, EU CICARO) | |
| | 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 | |
| | 1111 1000 - Advanced General Hysics I | |
| | DEPARTMENT REQUIREMENTS (8 Courses, 26 to 27 Credits) | 26-27 |
| | , | 14 |
| | Additional Physical Sciences Requirements (4 Courses, 14 Credits) | |
| | PHY 1400 – Advanced General Physics II | 3 |
| | EGR 2200 – Introduction to Electrical Engineering (3 crs.) | 3 |
| | EGR 2300 – Introduction to Engineering Thermodynamics (3 crs.) | 3 |
| | Solact and (1) from the following: | |
| | Select one (1) from the following: EPS 3100 - Meteorology | |
| | | |
| | EPS 3200 - Oceanography | |
| | EPS 3300 - Physical Geology | |
| | EPS 3500 - Introduction to Astronomy | |
| | EPS 3600 - Planetology: A Trip Through the Solar System | |
| | EPS 3800 - Introduction to Earth Science | |
| | | |
| | Additional Mathematics Requirements (2 Courses, 6 Credits) | 6 |

CURRENT

| Select Two (2) additional courses beyond the Mathematical and Quantitative Reasoning | |
|---|-------|
| (MQR) course from the following: | |
| 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 | |
| | |
| Additional Science and Mathematics Electives (2 Courses, 6 to 7 Credits) | 6 -7 |
| Elective Credits in CHM, CS, EGR, EPS, MAT, PHY, or SCI | |
| | |
| ELECTIVES: 0 - 1 credits sufficient to meet the required total 60 credits for the degree. | 0 - 1 |
| TOTAL CREDITS: 60 | 60 |
| *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 | |

PROPOSED

| Add/Delete/Change | A.S. PHYSICS | |
|-------------------|---|---------|
| | HEGIS: 5619.00 | |
| | PROGRAM CODE: 01042 | |
| | | |
| | 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*: | 4 |
| | Mathematical and Quantitative Reasoning*: | 3 |
| | 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 | |
| | | 1 |
| | Life and Physical Sciences*: | 4 |
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| | FLEWIN F CORE (C.C. CO.C. III.) | |
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| | E. Scientific World*: | |
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| | EGR 2300 – Introduction to Engineering Thermodynamics (3 crs.) | 3 |
| | | |
| | Calcat and (4) from the following: | |
| | Select one (1) from the following: | |
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| | EPS 3200 - Oceanography | |
| | EPS 3300 - Physical Geology | |
| | EPS 3500 - Introduction to Astronomy | |
| | EPS 3600 - Planetology: A Trip Through the Solar System | |
| | EPS 3800 - Introduction to Earth Science | |
| | | |
| | Additional Mathematics Requirements (2 Courses, 6 Credits) | 6 |

PROPOSED

| Select Two (2) additional courses beyond the Mathematical and Quantitative Reasoning | |
|---|-------|
| (MQR) course from the following: | |
| 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 | |
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| Additional Science and Mathematics Electives (2 Courses, 6 to 7 Credits) | 6 -7 |
| Elective Credits in CHM, CS, EGR, EPS, MAT, PHY, or SCI | |
| | |
| ELECTIVES: 0 - 1 credits sufficient to meet the required total 60 credits for the degree. | 0 - 1 |
| TOTAL CREDITS: 60 | 60 |
| | |
| *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 | |