

The City University of New York
CURRICULUM DATA TRANSMITTAL SHEET

DEPARTMENT: **PHYSICAL SCIENCES**

DATE: **Spring 2018**

Title of Course or Degree Change: **A.S. SCIENCE OF FORENSICS**

Change(s) Initiated: (Please Check)

- | | |
|---|--|
| <input type="checkbox"/> Closing of Degree | <input checked="" type="checkbox"/> Change in Degree or Certificate Requirements |
| <input type="checkbox"/> Closing of Certificate | <input type="checkbox"/> Change in Degree Requirements (adding concentration) |
| <input type="checkbox"/> New Certificate Proposal | <input type="checkbox"/> Change in Pre/Co-Requisite |
| <input type="checkbox"/> New Degree Proposal | <input type="checkbox"/> Change in Course Designation |
| <input type="checkbox"/> New Course | <input type="checkbox"/> Change in Course Description |
| <input type="checkbox"/> New 82 Course | <input type="checkbox"/> Change in Course Title, Numbers Credit and/or Hour |
| <input type="checkbox"/> Deletion of Course | <input type="checkbox"/> Change in Academic Policy |
| | <input type="checkbox"/> Pathways Submission: |
| | <input type="checkbox"/> Life and Physical Science |
| | <input type="checkbox"/> Math and Quantitative Reasoning |
| | <input type="checkbox"/> A. World Cultures and Global Issues |
| | <input type="checkbox"/> B. U.S. Experience in its Diversity |
| | <input type="checkbox"/> C. Creative Expression |
| | <input type="checkbox"/> D. Individual and Society |
| | <input type="checkbox"/> E. Scientific World |

Other (please describe):

PLEASE ATTACH PERTINENT MATERIAL TO ILLUSTRATE AND EXPLAIN ALL CHANGES

I. DEPARTMENTAL ACTION

Action by Department &/or Departmental Curriculum Committee, if required:

Date approved:

Signature, Committee Chairperson:

Signature, Department Chair:

Date:

Appended are:

1. Proposed Degree Requirements A.S. SCIENCE OF FORENSICS
2. Proposed 4 semester Degree Map A.S. SCIENCE OF FORENSICS
3. List of Proposed Changes A.S. SCIENCE OF FORENSICS
4. Current catalog description A.S. SCIENCE OF FORENSICS (Marked-up to show add/drop changes)
5. Proposed catalog description A.S. SCIENCE OF FORENSICS

Reason for Changes:

Comport with CUNY Degree and Academic Standards policies memo of 20 July 2016 requiring degree to be 60 credits including all pre-requisites and completed 4 semesters.

Degree Requirement A.S. SCIENCE OF FORENSICS

CUNY's General Education requirements: [excluding math and science requirement]

One year of English Composition: ENG 12 & ENG 24 (6 crs.)

Group A: One semester World (3 crs.)

Group B: One semester United States (3 crs.)

Group C: One semester Creative (3 crs.)

Group D: One semester Individual (3 crs.)

18 credits

Department Degree Requirements:

Physical Science Requirements:

BIO 1300– General Biology I (4 crs.)

BIO 1400– General Biology II (4 crs.)

CHM 1100 – General Chemistry I (4 crs.)

CHM 1200 – General Chemistry II (4 crs.)

CHM 3100 – Organic Chemistry I (5 crs.)

CHM 3200 – Organic Chemistry II (5 crs.)

PHY 1300 – Advanced General Physics I (4 crs.)

PHY 1400 – Advanced General Physics II (4 crs.)

34 credits

Mathematics Requirements:

MAT 9900 Pre-Calculus (3 crs)

MAT 1500 Calculus I (3 crs)

6 credits

Elective Credits (Recommended MAT 1600 Calculus II)

2 credits

Total

60 credits

A.S. SCIENCE OF FORENSICS

Degree Map

<u>Semester 1 (14 Credits)</u> <ul style="list-style-type: none">• BIO 13 - Biology I 4 crs.• CHM11 - Chemistry I 4 crs.• ENG12- English Composition I 3 crs.• Group A or B or C or D 3 crs.	<u>Semester 2 (17 Credits)</u> <ul style="list-style-type: none">• BIO 14 - Biology I 4 crs.• CHM12- Chemistry II 4 crs.• ENG24 English Composition II 3 crs.• MAT 99 Pre-Calculus 3 crs• Group A or B or C or D 3 crs.
<u>Semester 3 (15 credits)</u> <ul style="list-style-type: none">• CHM 31 Organic Chemistry II 5 crs.• PHY13 Advanced Physics I 4 crs.• Group A or B or C or D 3 crs.• MAT 15 Calculus I 3 crs.	<u>Semester 4 (14 credits)</u> <ul style="list-style-type: none">• CHM 32 Organic Chemistry II 5 crs.• PHY14 Advanced Physics II 4 crs.• Group A or B or C or D 3 crs.• Elective Credits 2 crs. (Recommended MAT 1600 Calculus II)

PROPOSED CHANGES A.S. FORENSICS

FROM:

~~Required Core (4 Courses, 14 Credits):~~

~~Mathematical & Quantitative Reasoning Course* **MAT 1500 – Calculus I (4 crs.)**~~

TO:

Required Core (4 Courses, 13 Credits):

Mathematical & Quantitative Reasoning Course* **MAT 99 Pre-Calculus(3crs)**

FROM:

Flexible Core (6 Courses, 20 Credits):

E. Scientific World Designated Courses*

~~**MAT 1600 – Calculus II (4 crs.)**~~

CHM 1200 – General Chemistry II (4 crs)

TO:

Flexible Core (6 Courses, 20 Credits):

E. Scientific World Designated Courses*

CHM 1100 – General Chemistry II (4 crs)

BIO 1400 – General Biology II (4 crs.)

FROM:

~~Major Requirements(6 Courses, 26 Credits):~~

~~**CHM 1100 – General Chemistry I (4 crs.)**~~

~~CHM 1200 – General Chemistry II (4 crs.)~~

~~CHM 3100 – Organic Chemistry I (5 crs.)~~

~~CHM 3200 – Organic Chemistry II (5 crs.)~~

~~PHY 1300 – Advanced General Physics I (4 crs.)~~

~~PHY 1400 – Advanced General Physics II (4 crs.)~~

~~Electives: 0 credits sufficient to meet required total of 60 credits~~

TO:

Additional Department Degree Requirements:

Physical Sciences Requirements (5 Courses, 22 Credits):

CHM 1200 – General Chemistry II (4 crs.)

CHM 3100 – Organic Chemistry I (5 crs.)

CHM 3200 – Organic Chemistry II (5 crs.)

PHY 1300 – Advanced General Physics I (4 crs.)

PHY 1400 – Advanced General Physics II (4 crs.)

Mathematics Requirements (1 Course, 3 Credits)::

MAT 1500 Calculus I (3 crs)

6 credits

Electives: 2 credits sufficient to meet required total of 60 credits

Recommended: MAT 1600 Calculus II

CURRENT

A.S. SCIENCE OF FORENSICS

ACADEMIC DEPARTMENT: Physical Sciences

HEGIS: 5619.00

PROGRAM CODE: 34472

CHAIRPERSON: Dr. John Mikalopas

OFFICE LOCATION: S-243

TELEPHONE: (718) 368-5746

The curriculum presented here applies to students who started the major in Fall 2017 or Spring 2018. If you enrolled as a matriculant prior to that, please see the *College Catalog* for the year you started the major as a matriculant for the curriculum requirements that apply to you.

Consultation with the Program Advisor is required.

Learning Outcomes:

Upon successful completion of the Science of Forensics degree program requirements, graduates will:

1. be able to understand the fundamental laws, theories, and ideas of Physics (and related Mathematics and Physical Sciences)
2. be able to evaluate and express empirical evidence supporting the fundamental laws, theories, and ideas of Physics (and related Mathematics and Physical Sciences)
3. be able to apply the fundamental laws, theories, and ideas of Physics (and related Mathematics and Physical Sciences) to analyze problems or questions
4. be able use the tools and methods of Physics (and related Mathematics and Physical Sciences) to gather, analyze, and interpret data
5. be able to express themselves effectively in written exams and laboratory reports using the terminology, notations, and symbols of Physics (and related Mathematics and Physical Sciences)
6. be able to understand the basic principles of Physics (and related Mathematics and Physical Sciences) underlying technological developments, scientific discovery, and matters of public policy and concern

College Requirements:

Successful completion of CUNY Assessment Tests in Reading, Writing, and ACCUPLACER CUNY Assessment Test in Math with passing examination scores, unless otherwise exempt, or developmental courses may be required.

Civic Engagement Experiences:

Two (2) Civic Engagement experiences satisfied by Civic Engagement Certified or Civic Engagement Component courses or approved outside activity.

Writing Intensive Requirement:

One (1) Writing Intensive course in any discipline is required. Participation in a Learning Community that includes ENG 1200 or ENG 2400 also satisfies this requirement.

Refer to course descriptions for prerequisite, corequisite and/or pre-corequisite requirements

~~DROP: Required Core (4 Courses, 14 Credits):~~

ADD: Required Core (4 Courses, 13 Credits):

When Required Core Courses are specified for a category, they are required for the major

ENG 1200 Composition I (3 crs.)
ENG 2400 Composition II (3 crs.)
Mathematical & Quantitative Reasoning Course* –

~~DROP: MAT 1500 – Calculus I (4 crs.)~~

ADD: MAT 99 Pre-Calculus(3crs)

Life & Physical Sciences Course* - BIO 1300 – General Biology I (4 crs.)

*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.

Flexible Core (6 Courses, 20 Credits):

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).

- A. World Cultures and Global Issues Designated Course
- B. U.S. Experience in its Diversity Designated Course
- C. Creative Expression Designated Course
- D. Individual and Society Designated Course
- E. Scientific World Designated Courses*

~~DROP: MAT 1600 – Calculus II (4 crs.)~~

ADD: CHM 1100 –General Chemistry I (4 crs.)

BIO 1400 – General Biology II (4 crs.)

*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.

No more than two courses can be selected from the same discipline

DROP:

~~**Major Requirements (6 Courses, 26 Credits):**~~

~~A cumulative grade point average of 2.50 or above, which includes BIO 1300 and BIO 1400, as well as the following 27 credits is required:~~

~~CHM 1100 – General Chemistry I (4 crs.)~~

~~CHM 1200 – General Chemistry II (4 crs.)~~

~~CHM 3100 – Organic Chemistry I (5 crs.)~~

~~CHM 3200 – Organic Chemistry II (5 crs.)~~

~~PHY 1300 – Advanced General Physics I (4 crs.)~~

~~PHY 1400 – Advanced General Physics II (4 crs.)~~

ADD:

Additional Department Degree Requirements:

Physical Science Requirements (5 Courses, 22 Credits):

CHM 1200 – General Chemistry II (4 crs.)

CHM 3100 – Organic Chemistry I (5 crs.)

CHM 3200 – Organic Chemistry II (5 crs.)

PHY 1300 – Advanced General Physics I (4 crs.)

PHY 1400 – Advanced General Physics II (4 crs.)

Mathematics Requirements (1 Course, 3 Credits):

MAT 15 Calculus I (3 crs)

Electives:

ADD:

2 credits sufficient to meet required total of 60 credits

(Recommended MAT 15 Calculus II)

TOTAL CREDITS: 60

PROPOSED

A.S. SCIENCE OF FORENSICS

ACADEMIC DEPARTMENT: Physical Sciences

HEGIS: 5619.00

PROGRAM CODE: 34472

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3. be able to apply the fundamental laws, theories, and ideas of Physics (and related Mathematics and Physical Sciences) to analyze problems or questions
4. be able use the tools and methods of Physics (and related Mathematics and Physical Sciences) to gather, analyze, and interpret data
5. be able to express themselves effectively in written exams and laboratory reports using the terminology, notations, and symbols of Physics (and related Mathematics and Physical Sciences)
6. be able to understand the basic principles of Physics (and related Mathematics and Physical Sciences) underlying technological developments, scientific discovery, and matters of public policy and concern

College Requirements:

Successful completion of CUNY Assessment Tests in Reading, Writing, and ACCUPLACER CUNY Assessment Test in Math with passing examination scores, unless otherwise exempt, or developmental courses may be required.

Civic Engagement Experiences:

Two (2) Civic Engagement experiences satisfied by Civic Engagement Certified or Civic Engagement Component courses or approved outside activity.

Writing Intensive Requirement:

One (1) Writing Intensive course in any discipline is required. Participation in a Learning Community that includes ENG 1200 or ENG 2400 also satisfies this requirement.

Refer to course descriptions for prerequisite, corequisite and/or pre-corequisite requirements

Required Core (4 Courses, 13 Credits):

When Required Core Courses are specified for a category, they are required for the major

ENG 1200 Composition I (3 crs.)

ENG 2400 Composition II (3 crs.)
Mathematical & Quantitative Reasoning Course* – MAT 9900 Pre-Calculus (3 crs.)
Life & Physical Sciences Course* - BIO 1300 – General Biology I (4 crs.)

*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.

Flexible Core (6 Courses, 20 Credits):

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).

- F. World Cultures and Global Issues Designated Course
- G. U.S. Experience in its Diversity Designated Course
- H. Creative Expression Designated Course
- I. Individual and Society Designated Course
- J. Scientific World Designated Courses*

BIO 1400 – General Biology II (4 crs.)

CHM 1100 –General Chemistry I (4 crs.)

*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.

No more than two courses can be selected from the same discipline

Additional Department Degree Requirements:

Physical Science Requirements (5 Courses, 22 Credits):

CHM 1200 – General Chemistry II (4 crs.)

CHM 3100 – Organic Chemistry I (5 crs.)

CHM 3200 – Organic Chemistry II (5 crs.)

PHY 1300 – Advanced General Physics I (4 crs.)

PHY 1400 – Advanced General Physics II (4 crs.)

A cumulative grade point average of 2.50 or above, which includes BIO 1300 and BIO 1400, as well as the following 26 credits is required:

Mathematics Requirements (1 Course, 3 Credits):

MAT 15 Calculus I

Electives:

2 credits sufficient to meet required total of 60 credits

(Recommended MAT 16 Calculus II)

TOTAL CREDITS: 60