**Chemistry Major**

**General Track**

**Catalog Years 2016 – 2017**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Advisee |  |  | Advisor |  |
| Student ID |  |  | Date |  |

Please use the following notations when you complete the checklist:

 X = course completed

 IP = course in progress

 F19 = intend to register for the course in fall 2019

**Core Curriculum Requirements**

To fulfill Towson University’s Core Curriculum requirements students must

Complete one course from each of the following 14 categories. For further explanation of Core Curriculum Courses, visit: <https://inside.towson.edu/universityrelations/core/corerequirements.cfm>

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| **Core Curriculum Requirements** |
|  | 1. Towson Seminar\* |
|  | 2. English Composition\* |
|  | 3. EXEMPT |
|  | 4. Creativity and Creative Development  |
|  | 5. Arts and Humanities |
|  | 6. Social and Behavioral Sciences |
|  | 7. EXEMPT |
|  | 8. EXEMPT |
|  | 9. Advanced Writing Seminar\* |

**Perspectives (10 -14)** One course under Perspectives must be taken in a discipline in the arts and humanities, different from the discipline in requirement 5. One course under Perspectives must be taken in a discipline in the social and behavioral sciences, different from the discipline in requirement 6.

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| --- | --- | --- |
|  |  | 1. Metropolitan Perspectives |
|  |  | 2. The United States as a Nation |
|  |  | 3. Global Perspectives |
|  |  | 4. Diversity and Difference |
|  |  | 5. Ethical Issues and Perspectives |
| \****Grade of ‘C’ or better required;***  |
| ***all others require ‘D’ or better.*** |

**Core Courses (31-32 units)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | CHEM | 131/131L | 4 units | General Chemistry I  |
|  | CHEM | 132/132L | 4 units  | General Chemistry II  |
|  | CHEM | 210 | 5 units | Analytical Chemistry  |
|  | CHEM | 323 | 4 units | Inorganic Chemistry  |
|  | CHEM | 331 | 5 units | Organic Chemistry I |
|  | CHEM  | 332 | 5 units | Organic Chemistry II |
|  | CHEM | 345 | 3 units | Principles of Physical Chemistry |
|  | CHEM | 351 | 3 units | Biochemistry |
|  | CHEM | 372 | 2 units | Physical Chemistry Laboratory  |

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| **Major Elective Courses (6 units minimum) Students need a minimum of 2 units of CHEM or FRSC courses among their 6 units of electives**  |
|  | CHEM | 310 | 5 units | Instrumental Analysis  |
|  | CHEM | 346 | 3 units+ | Theoretical Foundations of Physical Chemistry  |
|  | CHEM | 356 | 2 units | Biochemistry Laboratory  |
|  | CHEM | 357 | 3 units | Biochemistry II |
|  | CHEM | 461 | 1-3 units | Advanced Lecture Topics  |
|  | CHEM | 462 | 1-2 units | Advanced Laboratory Techniques  |
|  | CHEM | 472 | 3 units | Applications of Environmental Chemistry  |
|  | CHEM | 480 | 3 units | Chemical Toxicology  |
|  | CHEM | 499 | 2 units | Honors Thesis in Chemistry  |
|  | FRSC | 363 | 3 units | Chemistry of Dangerous Drugs  |
|  | FRSC | 367 | 3 units | Forensic Chemistry  |

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| **Major Elective Courses** |
|  | CHEM | 391-4 | 1-3 units\*\* | Special Problems in Chemistry  |
|  | CHEM | 395-6 | 1-3 units\*\* | Internship in Chemistry  |
|  | CHEM | 401 | 1 units | Seminar in Chemistry  |
|  | CHEM | 491 | 1-3 units\*\* | Introduction to Research in Chemistry  |
|  | BIOL | 309 | 4 units+  | Principles of Genetics  |
|  | BIOL | 408 | 4 units+ | Cell Biology  |
|  | BIOL | 409 | 3 units+ | Molecular Biology |
|  | BIOL | 410 | 2 units+ | Molecular Biology Laboratory  |
|  | BIOL | 421 | 4 units+ | Immunology  |
|  | BIOL | 428 | 3 units+ | Virology |
|  | BIOL | 486 | 1 units +# | Biology Majors Seminar  |
|  | COSC | 336  | 4 units+ | Data Structures and Algorithm Analysis |
|  | COSC | 378 | 3 units+ | Scientific Modeling and Simulation  |
|  | CIS | 458 | 3 units+ | Organizational Database Analysis  |
|  | GEOL | 305 | 4 units  | Environmental Geology  |
|  | GEOL | 331 | 4 units+ | Mineralogy  |
|  | GEOL | 415 | 4 units+ | Hydrogeology  |
|  | MATH | 330 | 4 units+ | Introduction to Statistical Methods  |
|  | MATH | 374 | 3 units+ | Differential Equations  |
|  | MATH | 378 | 3 units+ | Scientific Modeling and Stimulation |
|  | MBBB | 301 | 4 units | Introduction to Bioinformatics |
|  | MBBB | 401 | 3 units+ | Advanced Bioinformatics  |
|  | MBBB | 493 | 1 units+#  | Seminar in Bioethics  |
|  | PHYS | 307 | 3 units+ | Introductory Mathematical Physics  |
|  | PHYS | 311 | 3 units+ | Modern Physics |
|  | PHYS | 352 | 3 units+ | Thermodynamics and Kinetic Theory  |
|  | PHYS | 354 | 4 units+ | Electricity and Magnetism  |

+ Course has a prerequisite not listed among the core courses above.

# only one Chem 401, BIOL486, and MBBB493 may be counted for elective credit.

\*Course cannot be counted as both part of the core and part electives.

\*\*A maximum total of 4 units from among thee course may be applied to the elective requirements.

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| NOTE: A student may repeat no more than three courses, including multiple attempts at the same course, required for the major. This includes all foundation courses, as well as required courses and electives for the major.# repeats: \_\_\_\_\_\_ |

**Ancillary Courses (15 – 16 units)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | MATH | 273  | 4 units | Calculus I  |
| ***And one of the following***  |
|  | MATH | 231 | 3 units | Basic Statistics  |
|  | **OR** |  |
|  | MATH | 237 | 4 units | Elementary Biostatistics |
|  | **OR** |  |  |  |
|  | MATH | 274 | 4 units | Calculus II |
|  |  |  |  |  |
|  | PHYS | 211 | 4 units | Gen. Physics I ( non - Calc) |
|  |  |  |  |  |
|  | PHYS | 212 | 4 units | Gen Physics II ( non – Calc ) |
|  | **OR** |  |
|  | PHYS | 241 | 4 units | Gen. Physics I ( Calc ) |
|  | PHYS | 242 | 4 units | Gen. Physics II ( Calc )  |

**General Graduation Requirements**

**120 Units Required**

Total units to date including current semester: \_\_\_\_\_\_ units.

**32 Units Upper Division Required**

Total Upper Division units to date including current semester: \_\_\_\_\_\_ units

Current GPA: ­\_\_\_\_\_\_

Expected Graduation Date: \_\_\_\_\_\_

**Advisor Notes:**