**Chemistry Major**

**General Track**

**Catalog Years 2022 – 2023**

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

Please use the following notations when you complete the checklist:

X = course completed

IP = course in progress

F21 = intend to register for the course in fall 2021

**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>

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Core Curriculum Requirements** | | | | |
|  | 1. Towson Seminar\* |  |  | 10. Metropolitan Perspectives |
|  | 2. English Composition\* |  |  | 11. The United States as a Nation |
|  | 3. EXEMPT |  |  | 12. Global Perspectives |
|  | 4. Creativity and Creat. Develop. |  |  | 13. Diversity and Difference |
|  | 5. Arts and Humanities |  |  | 14. Ethical Issues and Perspectives |
|  | 6. Social and Behavioral Sciences |  |  |  |
|  | 7. EXEMPT |  |  |  |
|  | 8. EXEMPT |  |  | \****Grade of ‘C’ or better required;*** |
|  | 9. Advanced Writing Seminar\* |  |  | ***all others require ‘D’ or better.*** |

**Core Courses (35 units)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | CHEM | 131/131L | 3+1 units | General Chemistry I |
|  | CHEM | 132/132L | 3+1 units | General Chemistry II |
|  | CHEM | 220/220L | 3+2 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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| --- | --- | --- | --- | --- |
| **Elective Courses Group A (2 units minimum) with 6 units required total from Group A or Groups A & B** | | | | |
|  | CHEM | 310 | 4 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 |
|  | FRSC | 467 | 3 units | Forensic Analytical Chemistry |

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| --- | --- | --- | --- | --- |
| **Elective Courses: Group B** | | | | |
|  | CHEM | 391 | 1-3 units | Special Problems in Chemistry |
|  | CHEM | 395 | 3 units | Internship in Chemistry |
|  | CHEM | 401 | 1 units | Communication Skills in Chemistry |
|  | CHEM | 491 | 1-3 units | Research in Chemistry |
|  | BIOL | 408 | 4 units+ | Cell Biology |
|  | BIOL | 409 | 3 units+ | Molecular Biology |
|  | BIOL | 421 | 4 units+ | Immunology |
|  | BIOL | 428 | 3 units+ | Virology |
|  | 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 Simulation |
|  | MBBB | 301 | 4 units | Introduction to Bioinformatics |
|  | MBBB | 401 | 3 units+ | Advanced Bioinformatics |
|  | 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.**

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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: \_\_\_\_\_\_ |

**Additional Required 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:**