chair.

## B.S. in Chemistry and a Concentration in Chemical Physics MAJOR REQUIREMENTS/CHEMISTRY: 38 Credits **Credits** CE111: General Chemistry I 3.0 CE111L: General Chemistry I Lab 1.0 CE112: General Chemistry II 3.0 CE112L: General Chemistry II Lab 1.0 CE221: Quantitative Analysis 2.0 CE221L: Quantitative Analysis Lab 2.0 CE241: Organic Chemistry I 3.0 CE241L: Organic Chemistry I Lab 2.0 CE242: Organic Chemistry II 3.0 CE242L: Organic Chemistry II Lab 2.0 CE311: Chemical Literature 1.0 CE322: Instrumental Analysis 3.0 CE371: Physical Chemistry: Thermodynamics, Dynamics, 3.0 & The Solid State CE371L: Physical Chemistry: Thermodynamics. Dynamics. 1.0 & The Solid State Lab CE372: Physical Chemistry: Intro. To Spectroscopy and 3.0 Quantum Chemistry CE372L: Physical Chemistry: Intro. To Spectroscopy and 1.0 Quantum Chemistry Lab CE410: Seminar 1.0 CE475: Computational Chemistry and Molecular Modeling 3.0 REQUIREMENTS OUTSIDE OF MAJOR: 31 Credits MA125: Calculus with Analytic Geometry I 4.0 MA126: Calculus with Analytic Geometry II 4.0 MA211: Differential Equations 3.0 MA225: Calculus with Analytic Geometry III 4.0 PH211: General Physics and Calculus I 4.0 PH211L: General Physics and Calculus I Lab 1.0 PH212: General Physics and Calculus I 4.0 PH212L: General Physics with Calculus II Lab 1.0 PH301: Modern Physics 3.0 PH302: Applied Physics 3.0 FREE ELECTIVES: 17 Credits(\*) **Credits** (\*)By careful choice of electives, the B.S. in Chemistry with a Concentration in Chemical Physics can meet the requirements of the American Chemical Society certification of the degree. Students wishing to graduate with an ACS certified degree must take CE310, CE401, CE401L, and CE452 for a total of 11 credits, and apply to the department

## Office of Registration and Records West Long Branch, NJ 07764 - 1898

Page 2 CE.CP08.GE08

| B.S. in Chemistry and a Concentration in Chemical Physics |    |  |            |
|---|----|--|------------|
| GENERAL EDUCATION REQUIREMENTS: 42 Credits Credits        |    |  | Credits    |
| English   |    | EN101: College English I<br>EN102: College English II  | 3.0<br>3.0 |
| Literature  |    | EN201: Literature I EN202: Literature II   | 3.0<br>3.0 |
| History   |    | HS101: Western Civilization In World Perspective I<br>HS102: Western Civilization In World Perspective II                                  | 3.0<br>3.0 |
| Information Technology                                    |    | IT102: Information Technology for Scientists   | 3.0        |
| Critical Discourse  |    | HU201: Critical Discourse  | 3.0        |
| Science   |    | Fulfilled in Major Requirements  | 0.0        |
| Mathematics   |    | Fulfilled in Requirements Outside Major  | 0.0        |
| Social Science  |    | Choose two courses from 2 different disciplines from among the following any 100-level courses in AN, GO, PS, PY, SO; BE201, BE202, GS225. | 3.0<br>3.0 |
| Aesthetics  | or | AR101: Art Appreciation MU101: Music Appreciation TH101: Theater Appreciation DA101: Dance Appreciation                                    | 3.0        |
| Cross Cultural  | or | Two courses chosen from the set of approved courses 6 credits in the same foreign language   | 3.0<br>3.0 |
| Perspectives  |    | PRxxx  | 3.0        |
| Experiential Education                                    |    | EX001  | 0.0        |
| Demonstration of Writing Proficiency                      |    | WP001  | 0.0        |
| Writing Intensive<br>Requirement                          |    | Two courses as specified by the department in which the major is housed.   | 0.0<br>0.0 |

## TOTAL CREDITS FOR B.S. IN CHEMISTRY AND A CONCENTRATION IN CHEMICAL PHYSICS = 128.0

## **NOTES**

ORR 05/08

<sup>\* 58</sup> credits must be completed at the 200 level or higher.