MONMOUTH UNIVERSITY CURRICULUM CHART

## Bachelor of Science in Chemistry and a Concentration in Advanced Chemistry (American Chemical Society Approved Program)*

| MAJOR REQUIREMENTS/CHEMISTRY: 50 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 |
| | CE310: Biochemistry and Lab | 4.0 |
| | CE311: Chemical Literature | 1.0 |
| | CE322: Instrumental Analysis | 4.0 |
| | CE371L: Biophysical Chemistry: Thermodynamics, Dynamics, & Chemical Kinetics | 3.0 |
| | CE371L: Biophysical Chemistry: Thermodynamics, Dynamics, & Chemical Kinetics Lab | 1.0 |
| | CE372: Phys. Chem: Intro. to Spectroscopy & Quantum Chemistry | 3.0 |
| | CE372L: Phys. Chem: Intro. to Spectroscopy & Quantum Chem. Lab | 1.0 |
| | CE401: Advanced Inorganic Chemistry | 3.0 |
| | CE401L: Advanced Inorganic Chemistry Lab | 1.0 |
| | CE410: Seminar | 1.0 |
| | CE452: Advanced Organic Chemistry | 3.0 |
| **3 crs. of CE electives from level 400+** | *(except CE499)* CExxx: _____ | 3.0 |

| REQUIREMENTS OUTSIDE MAJOR: 18 Credits | | Credits |
|---|---|---|
| | MA125: Calculus with Analytic Geometry I | 4.0 |
| | MA126: Calculus with Analytic Geometry II | 4.0 |
| | PH211: General Physics and Calculus I | 4.0 |
| | PH211L: General Physics with Calculus I Lab | 1.0 |
| | PH212: General Physics with Calculus II | 4.0 |
| | PH212L: General Physics with Calculus II Lab | 1.0 |

| FREE ELECTIVES: 24 Credits | | Credits |
|---|---|---|
| | _____ | 24.0 |
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* Students who complete this program will have their degree certified by the American Chemical Society.

**Curriculum Chart 2010-2011** | **CE.ACS09.GE10**

MONMOUTH UNIVERSITY CURRICULUM CHART

## Bachelor of Science in Chemistry and a Concentration in Advanced Chemistry (American Chemical Society Approved Program)*

| GENERAL EDUCATION REQUIREMENTS: 36 Credits | | | Credits |
|---|---|---|---|
| First Year Seminar | | FY-101: First Year Seminar *(Select Section "CE") | 3.0 |
| Reading and Writing | | EN101: College Composition I | 3.0 |
| | | EN102: College Composition II | 3.0 |
| Mathematics | | Fulfilled in Outside Major Requirements with MA125 or MA126 | 0.0 |
| Natural Sciences | | Fulfilled in Major Requirements with required CE courses | 0.0 |
| Literature | | 3 Credits from courses designated with Course*Type: LIT | 3.0 |
| Aesthetics and Creativity | | 3 Credits from Art, Music, Theatre, or Dance | 3.0 |
| Technological Literacy | | IT102: Information Technology for Scientists | 3.0 |
| Reasoned Oral Discourse | | Fulfilled in Major Requirements with required CE410 | 0.0 |
| Historical Perspective | | 3 Credits from courses designated with Course*Type: HS.SV | 3.0 |
| Social Science | | 3 Credits from courses designated with Course*Type: SS.SV | 3.0 |
| Historical Perspective/Social Sciences | | 3 Credits from courses designated with Course*Type: HS.SV | |
| | **or** | 3 Credits from courses designated with Course*Type: SS.SV | 3.0 |
| Interdisciplinary Perspectives | | 3 Credits from courses designated with Course*Type: ISP | 3.0 |
| Cultural Diversity/Global Understanding | | 3 Credits from courses designated with Course*Type: CD | |
| | | 3 Credits from courses designated with Course*Type: GU | |
| | **or** | 6 Credits from the SAME foreign language | 6.0 |
| Experiential Education | | One course designated with Course*Type: EX | 0.0 |
| Writing Intensive | | Two courses from Chemistry (CE) designated with Course*Type: WT | 0.0 |
| | | | 0.0 |

**Total Credits for Bachelor of Science in Chemistry and a Concentration in Advanced Chemistry = 128**

**NOTES:**

*** 58 credits must be completed at the 200 level or higher.**