

**LIBERAL ARTS AND SCIENCES: BACHELOR OF SCIENCE
CHEMISTRY**

| V. MAJOR PROGRAM: 45/46 S.H. | | |
|---|------------|-------------|
| A. REQUIRED: 38 S.H. | | |
| | Gr. | S.H. |
| CHM 100 General Chemistry I | | 4 |
| CHM 102 General Chemistry II | | 4 |
| CHM 214VL Organic Chemistry I | | 4 |
| CHM 216WI Organic Chemistry II | | 4 |
| CHM 230QLWI Analytical Chemistry I | | 4 |
| CHM 314 Physical Chemistry I | | 4 |
| CHM 316 Physical Chemistry II | | 4 |
| CHM 320 Adv. Inorganic Chemistry | | 4 |
| CHM 340 Analytical Chemistry II | | 4 |
| CHM 380 Senior Seminar in Chem. | | 2 |
| B. ELECTIVE: 7/8 S.H. | | |
| CHM 310 Biochemistry I | | 4* |
| CHM 312 Biochemistry II | | 4 |
| CHM 318 Adv. Biochemistry | | 3 |
| CHM 326 Adv. Organic Chemistry | | 3 |
| CHM 327 Organometallic Chemistry | | 3 |
| CHM 336 Adv. Physical Chemistry | | 3 |
| CHM 351 Selected Topics | | 1-6 |
| CHM 370 Research in Chemistry I | | 1-3** |
| CHM 371 Research in Chemistry II | | 1-3** |
| CHM 372 Research in Chemistry III | | 1-3** |
| CHM 373 Research in Chemistry IV | | 1-3** |
| CHM 390 Internship in Chemistry | | 1-4 |
| TOTAL SEMESTER HOURS | | |
| VI. CONCOMITANT COURSES: 24 S.H. | | |
| A. PHYSICS: 8 S.H. | | |
| PHY 100 Physics I | | 4 |
| PHY 102 Physics II | | 4 |
| B. MATHEMATICS: 12 S.H. | | |
| MAT 181 Calculus I | | 4 |
| MAT 182 Calculus II | | 4 |
| MAT 283 Calculus III | | 4 |
| C. BIOLOGY: 4 S.H. | | |
| BIO 104 Principles of Biology | | 4 |

| VII. GRADUATION CLEARANCE | |
|----------------------------------|-------|
| A. Cumulative Q.P.A. | _____ |
| B. Total Semester Hours | |
| a. General Education | _____ |
| b. Major Program | _____ |
| c. Concomitant | _____ |
| GRAND TOTAL | _____ |
| C. Comprehensive Exam Passed | |
| yes | no |
| Advisor's Signature | |
| Date _____ | |

| NOTES | |
|--|--|
| * To receive an American Chemistry Society accredited degree, CHM 310 must be taken. | |
| **The combined credit total toward the major program for CHM 370, CHM 371, CHM 372, & CHM 373 may not exceed 4 S.H. Any additional credit hours count toward free electives. | |
| A minimum of 120 s.h. are required for graduation. | |

Program ULASCHES
Effective Date of Program: Fall 2012
Reviewed: 1/12

STUDENT:



STUDENT ID NUMBER:

COLLEGE OF LIBERAL ARTS & SCIENCES • BS • CHEMISTRY

Program Code **ULASCHES**Effective Date: **08/29/2011**

GENERAL EDUCATION

I. UNIVERSITY CORE (12 credits)

| | RC | CR | GR |
|--|----|----|----|
| A. Oral Communication: COM 10 or above | | | |
| COURSE: | 3 | | |
| B. Written Communication: ENG 23, 24, or 25 | | | |
| COURSE: | 3 | | |
| C. Mathematics: MAT 17 or above | | | |
| COURSE: | 3 | | |
| D. Wellness: Any 3-credit HEA course | | | |
| COURSE: | 3 | | |

II. UNIVERSITY DISTRIBUTION (15 credits)

| | RC | CR | GR | CAC |
|---|----|----|----|-----|
| A. Natural Sciences: Any lab or non-lab course with prefix AST, BIO, CHM, ENV, GEL, MAR, NSE, or PHY; or certain GEG courses (see note at right) | | | | |
| COURSE: | 3 | | | |
| B. Social Sciences: Any course with prefix ANT, CRJ, ECO, HIS, INT, MCS, PSY, POL, SOC, SSE, or SWK; or certain GEG courses (see note at right) | | | | |
| COURSE: | 3 | | | |
| C. Humanities: Any course with prefix ENG, HUM, PAG, PHI, WRi, WGS, or Modern Language | | | | |
| COURSE: | 3 | | | |
| D. Arts: Any course with prefix ARC, ARH, ART, CDE, CDH, CFT, DAN, FAR, FAS, MUP, MUS, or THE | | | | |
| COURSE: | 3 | | | |
| E. Free Elective: Any course carrying university credit | | | | |
| COURSE: | 3 | | | |

III. COMPETENCIES ACROSS THE CURRICULUM

| | RC | CR | GR | CAC |
|--|----|----|----|-----|
| A. Writing Intensive (WI) (9 credits) | | | | |
| COURSE: | 3 | | | WI |
| COURSE: | 3 | | | WI |
| COURSE: | 3 | | | WI |
| B. Quantitative Literacy (QL) (3 credits) | | | | |
| Computer-Intensive (CP) (3 credits) | | | | |
| COURSE: | 3 | | | |
| C. Visual Literacy (VL) (3 credits) | | | | |
| Communication-Intensive (CM) (3 credits) | | | | |
| COURSE: | 3 | | | |
| D. Cultural Diversity (CD) (3 credits) | | | | |
| COURSE: | 3 | | | CD |
| E. Critical Thinking (CT) (3 credits) | | | | |
| COURSE: | 3 | | | CT |

A Competency Across the Curriculum (CAC) course is not a separate course, but rather an overlay that is "double counted" as fulfilling both the CAC requirement and another requirement in either General Education (except for the University Core), the major, or the minor.

RC = Minimum required number of credits

CR = Credits earned (fill in number of credits)

GR = Grade earned (fill in letter grade)

CAC = Competency Across the Curriculum (fill in designation)

NOTE: GEG courses with a lab and 40, 322, and 323 may be used in II.A. and GEG courses 40, 204, 274, 304, 322, 323, 324, 347, 380, and 394 may NOT be used in II.B.

IV. COLLEGE DISTRIBUTION (33 credits)

| | RC | CR | GR | CAC |
|--|----|----|----|-----|
| A. Natural Science, Mathematics, and Computer Science[#] (6 credits): Choose one course in each subcategory. | | | | |
| 1. Natural Science with Lab: AST, BIO, CHM, ENV, GEL, PHY, or MAR; or GEG (see note at right) | | | | |
| COURSE: | 3 | | | |
| 2. Elective: MAT, CSC, AST, BIO, CHM, ENV, GEL, PHY, or MAR; or GEG (see note at right) | | | | |
| COURSE: | 3 | | | |
| B. Social Science (9 credits): Choose one course in each subcategory. | | | | |
| 1. Elective: HIS, ANT, GEG (see note at right), or POL | | | | |
| COURSE: | 3 | | | |
| 2. Elective: PSY, SOC, CRJ, or SWK | | | | |
| COURSE: | 3 | | | |
| 3. Elective: ANT, HIS, ECO, GEG (see note at right), PSY, POL, SOC, CRJ, or SWK | | | | |
| COURSE: | 3 | | | |

| | RC | CR | GR | CAC |
|---|----|----|----|-----|
| C. Humanities (9 credits): Choose one course in each subcategory. | | | | |
| 1. Elective: PAG*, ENG, WRI, or HUM | | | | |
| COURSE: | 3 | | | |
| 2. Elective: Modern Language (103 or above) or PHI | | | | |
| COURSE: | 3 | | | |
| 3. Elective: PAG*, ENG, WRI, HUM, Modern Language (103 or above), or PHI | | | | |
| COURSE: | 3 | | | |
| D. Free Electives (9 credits): Choose any university courses that count toward graduation. | | | | |
| COURSE: | 3 | | | |
| COURSE: | 3 | | | |
| COURSE: | 3 | | | |

NOTE: GEG courses with a lab and 40, 322, and 323 may be used in IV.A. and GEG courses 40, 204, 274, 304, 322, 323, 324, 347, 380, and 394 may NOT be used in IV.B.

[#] Students in the College of Liberal Arts and Sciences are required to take at least one course in Biological Science (BIO) and at least one course in Physical Science (AST, CHM, ENV, GEL, PHY, MAR, GEG with lab, or GEG 40, GEG 322, or GEG 323), and at least one of which must be a lab (each course may be counted in either sections II.A. or IV.A).

* Excludes PAG 011 and PAG 012

B.S. Chemistry Example 4-Year Schedule

A total of 120 credits is required to complete the B.S. Chemistry Degree.
44-46 credits must have a CHM prefix.

Freshman Year

| Fall Semester | Cr |
|---------------------------|----|
| CHM 100 - Gen Chem I | 4 |
| MAT 105 - College Algebra | 3 |
| Gen Ed Course | 3 |
| Gen Ed Course | 3 |
| Gen Ed Course | 3 |
| Total | 16 |

| Spring Semester | Cr |
|----------------------------|----|
| CHM 102 - Gen Chem II | 4 |
| MAT 106 - Trigonometry | 3 |
| BIO 104 - Princ of Biology | 4 |
| Gen Ed Course | 3 |
| Total | 14 |

*Instead of MAT 105 and 106, Precalculus (MAT 115) or Calculus I (MAT 181) could be taken.

Sophomore Year

| Fall Semester | Cr |
|-----------------------------|----|
| CHM 214 - Organic Chem I | 4 |
| CHM 230 - Analytical Chem I | 4 |
| PHY 100 - Physics I | 4 |
| MAT 181 - Calculus I | 4 |
| Total | 16 |

| Spring Semester | Cr |
|---------------------------|----|
| CHM 216 - Organic Chem II | 4 |
| PHY 102 - Physics II | 4 |
| MAT 182 - Calculus II | 4 |
| Gen Ed Course | 3 |
| Total | 15 |

Junior Year

| Fall Semester | Cr |
|---------------------------|----|
| CHM 314 - Physical Chem I | 4 |
| MAT 283 - Calculus III | 4 |
| Gen Ed Course | 3 |
| Gen Ed Course | 3 |
| Gen Ed Course | 3 |
| Total | 17 |

| Spring Semester | Cr |
|----------------------------|----|
| CHM 316 - Physical Chem II | 4 |
| Gen Ed Course | 3 |
| Gen Ed Course | 3 |
| Gen Ed Course | 3 |
| Total | 14 |

Senior Year

| Fall Semester | Cr |
|------------------------------|---------|
| CHM 320 - Adv Inorganic Chem | 4 |
| CHM Elective | 1 - 4 |
| Gen Ed Course | 3 |
| Gen Ed Course | 3 |
| Total | 11 - 14 |

| Spring Semester | Cr |
|------------------------------|---------|
| CHM 340 - Analytical Chem II | 4 |
| CHM 380 - Senior Seminar | 2 |
| CHM Elective | 1 - 4 |
| Gen Ed Course | 3 |
| Gen Ed Course | 3 |
| Total | 13 - 16 |

Chemistry Electives (6 Cr required)

| Course | Cr |
|--------------------------------|--------|
| CHM 310 Biochemistry I | 4 |
| CHM 312 Biochemistry II | 4 |
| CHM 326 - Adv Organic Chem | 3 |
| CHM 336 - Adv Physical Chem | 3 |
| CHM 351 - Selected Topics | 1 - 6 |
| CHM 370 - Research in Chem I | 1 - 3* |
| CHM 371 - Research in Chem II | 1 - 3* |
| CHM 372 - Research in Chem III | 1 - 3* |
| CHM 373 - Research in Chem IV | 1 - 3* |
| CHM 390 - Internship in Chem | 1 - 4 |

*The sum total of CHM370, CHM371, CHM372 & CHM373 may not exceed 4 Cr. Also, some of these electives are not offered every semester.