

**2015-2016 Degree Map-Bachelor of Science in Chemistry: Professional Option**

This map is a term-by-term sample course schedule. The milestones listed to the right of each term are designed to keep you on course to graduate in four years. The Sample Schedule serves as a general guideline to help you build a full schedule each term. See course descriptions and prerequisites at <http://www.atu.edu/academics/catalog/>.

**Possible careers include: Biophysicist, Chemical Engineer, Chemical Technician, Conservation Scientist, Environmental Engineer, Food & Drug Inspector, Food Technologist, Forensic Science Technician, Industrial Air Pollution Analyst, Industrial Waste Inspector, Materials Scientist, Microbiologist, Pharmacist, Soil Scientist, Toxicologist, Water Pollution Control Inspector**

#Remedial Courses (if applicable): ENGL 0303 \_\_\_ ENGL 0404 \_\_\_ READ 0103 \_\_\_ MATH 0903 \_\_\_

**Sample Schedule**
**Milestones/Notes**

| Semester 1   | Hrs. | Grade | Semester 1                            |
|--|------|-------|---------------------------------------|
| ENGL 1013: Comp I (ACTS=ENGL 1013)                   | 3    | #     |                                       |
| Social Science                                       | 3    |       |                                       |
| MATH 2914: Calculus I (ACTS= MATH 2405)              | 4    |       | C or > required for Gen Ed. Milestone |
| PHSC1001: Orientation to Physical Science            | 1    |       |                                       |
| CHEM2124/2120: General Chemistry I (ACTS= CHEM 1414) | 4    | #     | Milestone                             |
| Total hours  | 15   | GPA   |                                       |

| Semester 2   | Hrs. | Grade | Semester 2 |
|--|------|-------|------------|
| ENGL 1023: Comp II (ACTS= ENGL 1023)                     | 3    | #     |            |
| BIOL1114: Principles of Biology (ACTS= BIOL 1014)        | 4    |       | Milestone  |
| MATH2924: Calculus II (ACTS= MATH 2505)                  | 4    |       | Milestone  |
| PHSC1011: Orientation to Physical Science II (MANDATORY) | 1    |       |            |
| CHEM2134/2130: General Chemistry II (ACTS= CHEM 1424)    | 4    | #     |            |
| Total hours  | 16   | GPA   |            |

| Semester 3  | Hrs. | Grade | Semester 3                      |
|---|------|-------|---------------------------------|
| Social Science                                      | 3    |       |                                 |
| PHYS 2114/2000: General Physics I (ACTS= PHYS 2034) | 4    |       | Milestone                       |
| MATH2934: Calculus III (ACTS= MATH 2603)            | 4    |       |                                 |
| COMS2003*: Microcomp. Apps. or COMS2803: Prog. in C | 3    |       | *(COMS 2003 prereq.= COMS 1003) |
| CHEM3254: Fundamentals of Organic Chemistry         | 4    | #     | Milestone                       |
| Total hours   | 18   | GPA   |                                 |

| Semester 4   | Hrs. | Grade | Semester 4                   |
|--|------|-------|------------------------------|
| U.S. History & Government                            | 3    |       |                              |
| PHYS 2124/2010: General Physics II (ACTS= PHYS 2044) | 4    |       |                              |
| CHEM3245: Quantitative Analysis                      | 5    | #     |                              |
| CHEM3264: Mechanistic Organic Chemistry              | 4    | #     |                              |
| Total hours  | 16   | GPA   | <b>CHEM ADVISOR ASSIGNED</b> |

The Arkansas Course Transfer System (ACTS) is designed to assist in planning the academic progress of students. This system contains information about the transferability of courses within Arkansas public colleges and universities. The Arkansas Course Transfer System can be accessed at <http://acts.adhe.edu/>

| Fine Arts and Humanities                                   | U.S. History & Government                                 |
|--|---|
| ART 2123 Experiencing Art (ACTS=ARTA1003)                  | HIST 1903 Survey of American History                      |
| MUS 2003 Introduction to Music (ACTS=MUSC1003)             | HIST 2003 United States History to 1877 (ACTS=HIST2113)   |
| TH 2273 Introduction to Theatre (ACTS=DRAM 1003)           | HIST 2043 Honors United States History to 1877            |
| ENGL 2173 Introduction to Film                             | HIST 2013 United States History from 1877 (ACTS=HIST2123) |
| JOUR 2173 Introduction to Film                             | POLS 2003 American Government (ACTS=PLSC2003)             |
| ENGL 2003 Introduction to World Literature (ACTS=ENGL2113) | <b>Speech Courses</b>                                     |
| ENGL 2013 Intro. to American Literature (ACTS=ENGL2653)    | SPH 1003 Intro. to Speech Com. (ACTS=SPCH1003)            |
| ENGL 2023 Honors World Literature                          | SPH 2003 Public Speaking                                  |
| PHIL 2003 Introduction to Philosophy (ACTS=PHIL1103)       | SPH 2173 Business and Professional Speaking               |
| PHIL 2043 Honors Introduction to Philosophy                |   |

Prerequisites (if applicable): MATH 1914 (ACTS=MATH1305) \_\_\_ OR MATH 1203 (ACTS=MATH1203) \_\_\_

**Sample Schedule**
**Milestones/Notes**

| Semester 5                                       | Hrs. | Grade | Semester 5                |
|--|------|-------|---------------------------|
| Fine Arts & Humanities                           | 3    |       |                           |
| CHEM3301: Chemistry Seminar                      | 1    | #     |                           |
| CHEM3324: Physical Chemistry I                   | 4    | #     |                           |
| CHEM3423: Descriptive Inorganic Chemistry        | 3    | #     |                           |
| CHEM Elective: Excluding CHEM 1113 and CHEM 2204 | 3    | #     | CHEM 1113 (ACTS=CHEM1214) |
| Total hours                                      | 14   | GPA   |                           |

| Semester 6                             | Hrs. | Grade | Semester 6                  |
|--|------|-------|-----------------------------|
| Fine Arts & Humanities                 | 3    |       |                             |
| Social Sci/Fine Arts/Humanities/Speech | 3    |       |                             |
| CHEM3334: Physical Chemistry II        | 4    | #     |                             |
| *General Elective                      | 3    |       |                             |
| *General Elective                      | 3    |       |                             |
| Total hours                            | 16   | GPA   | <b>APPLY FOR GRADUATION</b> |

| Semester 7                             | Hrs. | Grade | Semester 7 |
|--|------|-------|------------|
| CHEM3344: Principles of Biochemistry   | 4    | #     |            |
| CHEM4401: Chemistry Seminar            | 1    | #     |            |
| CHEM4414: Instrumental Analysis        | 4    | #     |            |
| CHEM4433: Advanced Topics in Chemistry | 3    | #     |            |
| Total hours                            | 12   | GPA   |            |

| Semester 8   | Hrs.  | Grade | Semester 8   |
|--|-------|-------|--|
| CHEM4424: Advanced Inorganic Chemistry   | 4     | #     |  |
| CHEM4992-4: Special Problems in Chemistry OR CHEM4952-4: Undergraduate Research in Chemistry | 2-4   | #     | <b>Graduation Requirements:</b><br>Min. hours 3000-4000 level courses: 40<br>No more than 4 PE activity hours<br>Min. hours required: 120<br>2.00+ GPA |
| *General Elective  | 5-7   |       |  |
| Total Hours  | 11-15 | GPA   |  |

\*General Electives: 13 hours (1000-4000 level) or sufficient number to earn 120 total hours.

Recommended electives: German, Statistics, or ENGL 2053 (ACTS=ENGL2023)

# indicates a "C" or better is required

| HIST  | Social Sciences   |
|---|---|
| HIST 1503 World Civilization to 1500 (ACTS=HIST1113)    | ECON 2013 Principles of Economics II (ACTS=ECON2203)      |
| HIST 1513 World Civilization since 1500 (ACTS=HIST1123) | SOC 1003 Introductory Sociology (ACTS=SOCI1013)           |
| HIST 1543 Honors World Civilization to 1500             | PSY 2003 General Psychology (ACTS=PSYC1103)               |
| HIST 2003 U.S. History to 1877 (ACTS=HIST2113)          | ANTH 1213 Intro. to Anthropology (ACTS=ANTH1013)          |
| HIST 2013 U.S. History since 1877 (ACTS=HIST2123)       | ANTH 2003 Cultural Anthropology (ACTS=ANTH2013)           |
| HIST 2043 Honors U.S. History to 1877                   | GEOG 2013 Regional Geography of the World (ACTS=GEOG2103) |
| HIST 1903 Survey of American History                    | AMST 2003 American Studies                                |
| POLS 2003 American Government (ACTS=PLSC2003)           |   |
| ECON 2003 Principles of Economics I (ACTS=ECON2103)     |   |
| ECON 2103 Honors Principles of Economics I              |   |