

**BS Chemistry (ACS Approved Environmental Chemistry Option): 78 credits in Major****Suggested Plan of Study**

Department of Chemistry and Physics: Phone 320-308-3031 E-mail: chemistry@stcloudstate.edu

**Chemistry Major Advisors**

Dr. Michael Dvorak 308-2015 madvorak@stcloudstate.edu

Dr. Mark Mechelke 308-2030 mmechelke@stcloudstate.edu

Dr. Michael Jeannot 308-2046 mjeannot@stcloudstate.edu

Dr. Latha Ramakrishnan 308-3257 lramakrishnan@stcloudstate.edu

Dr. Donald Neu 308-3989 dneu@stcloudstate.edu

**Transfer Advisors**

Dr. Lakshmaiah Sreerama 308-2080 lsreerama@stcloudstate.edu

Dr. Nathan Winter 308-2052 nwinter@stcloudstate.edu

**First Semester**

<sup>1</sup>Chemistry 210 (4 cr.)  
<sup>2</sup>Math 221 (5 cr.)  
<sup>3</sup>Liberal Education Goal Area (3-7 cr.)  
**Total semester credits = 12-16**

**Second Semester**

Chemistry 211 (4 cr.)  
 Math 222 (4 cr.)  
 Earth & Atmospheric Science 220 (4 cr.)  
<sup>3</sup>Liberal Education Goal Area (3 cr.)  
**Total semester credits = 15**

**Third Semester**

<sup>4</sup>Chemistry 310 (5 cr.)  
 Chemistry 350 (4 cr.)  
 Physics 234 (5 cr.)  
<sup>3</sup>PESS 122 (1 cr.)  
**Total semester credits = 15**

**Fourth Semester**

Chemistry 311 (4 cr.)  
 Earth & Atmospheric Science 300 (2 cr.)  
 Physics 235 (5 cr.)  
<sup>3</sup>Liberal Education Goal Area (3-5 cr.)  
**Total semester credits = 14-16**

**Fifth Semester**

Chemistry 420 (4 cr.)  
 Chemistry 422 (1 cr.)  
 Chemistry 440 (3 cr.)  
 Chemistry 480 (4 cr.)  
<sup>3</sup>Liberal Education Goal Area (3 cr.)  
**Total semester credits = 15**

**Sixth Semester**

Chemistry 421 (4 cr.)  
 Chemistry 423 (1 cr.)  
 Chemistry 450 (4 cr.)  
 Chemistry 391 (1 cr.)  
<sup>3</sup>Liberal Education Goal Area (6 cr.)  
**Total semester credits = 16**

**Seventh Semester**

Chemistry 430 (4 cr.)  
<sup>5</sup>Chemistry 489 or 444 (1 cr.)  
<sup>3</sup>Liberal Education Goal Area (6 cr.)  
<sup>6</sup>**Total semester credits = 11 ++**

**Eighth Semester**

Chemistry 431 (2 cr.)  
<sup>5</sup>Chemistry 489 or 444 (1 cr.)  
 Chemistry 491 (2 cr.)  
<sup>6</sup>**Total semester credits = 5 ++**

**Notes:**

<sup>1</sup>The prereqs for Chem 210: Must have an ACT math subscore of 23 or higher; **or** completed CHEM 160 with a C or better; **or** have completed Math 072 with a C- or better; **or** a score of 50 or higher on the ACCUPLACER **CLM** exam (College Level Math) **or** a score of 16 or higher on the Calculus Readiness test. Higher level acceptable MATH classes: Math 112, 113, 115, 211, 212, 221, 222 and 325.

<sup>2</sup>Contact the Math Department at 320-308-3001 regarding placement into MATH 221. Note that MATH 221 is an acceptable substitute for MATH 193 in the Liberal Education program. MATH 221 and 222 also allow for a waiver of goal area 4.

<sup>3</sup>The Liberal Education Program (LEP) incorporates the ten goals of the Minnesota Transfer Curriculum. LEP must be satisfied by completion of all ten goals and achieve a total of at least 40 credits. Students must complete 3 diversity courses. The diversity courses must come from 3 different rubrics or academic areas. One diversity course must be an approved Racial Issues course. See Goal 7 for approved Racial Issues courses. Completion of major courses allows for a waiver of 9 credits from goal area 3 and 5 credits from goal area 4. Note that there are 1 and 2 credit classes in some goal areas. All students must complete PESS 122.

<sup>4</sup>Upper level chemistry courses are not offered every semester. Odd semesters above correspond to fall offerings, and even semesters correspond to spring offerings.

<sup>5</sup>A minimum of 2 credits of undergraduate research (CHEM 489) or pre-approved internship (CHEM 444) are required.

<sup>6</sup>A minimum of 120 credits must be earned to graduate. The 45 upper level credit requirement is completely met by completion of this major.

NOTE: The following courses are normally offered in the summer: CHEM 160, 210, 211. Consult departments after February 1 to determine expected summer course offerings.