# Klamath Community College Transfer Guide for Chemistry and Biochemistry & Biophysics Majors

## Chemistry

The Chemistry major (CH) provides a solid foundation for many professions including teaching, forensics, biotechnology, medicine, materials science and nanotechnology, chemical processing, electronics, agricultural and food science, oceanography, and environmental science. Chemistry students choose from among the 10 different options in the major including advanced chemistry, biochemistry, business, chemistry education, chemical engineering, environmental chemistry, forensic science, materials science, & pre-medicine.

## Biochemistry & Biophysics

The Biochemistry & Biophysics major (BB) involves life science, quantitative work, and physical science training. Graduates of the BB major are well-prepared for postgraduate work in other biological fields including medicine, pharmacology, physiology, neurosciences, microbiology, immunology, dentistry, genetics, cell biology, entomology, agricultural science, biological oceanography, fisheries and wildlife, toxicology, food science and technology, environmental sciences, forensics, marine biology, and nutrition.

### Courses for these Majors:

Courses for these Majors: (offered at the community college)  
Mathematics and General Chemistry are priority courses to complete before transferring.  
CH and BB majors must complete MTH 254, Physics, & Organic Chemistry (if offered) before transferring in order to graduate in 4 years.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>KCC Equivalent</th>
<th>OSU Courses Chemistry Majors</th>
<th>OSU Courses Biochemistry/Biophysics Majors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>MTH 251, MTH 252, MTH 254</td>
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<td>MTH 251, MTH 252, MTH 254</td>
</tr>
</tbody>
</table>

Depending on math placement, students may need to take math courses prior to MTH 251 (e.g., MTH 111, 112, or others). Please speak to your COCC advisor. The OSU Math Department enforces prerequisites of C- or better for all Math courses in order to move on to higher level Math courses.

**General Chemistry**

- CHE 221/221L, 222/222L, 223/223L^  
- CH 231/261, 232/262, 233/263^  
- CH 231/261, 232/262, 233/263^  

Students need a C– or higher in the Chemistry 200-series (OSU or transfer) before moving on to upper division (300-400 level) Chemistry courses.

**Physics**

- PHY 201/201L, 202/202L, 203/203L^  
- PHY 211/211L, 212/212L, 213/213L^  
- PH 201, 202, 203  
- PH 211/221, 212/222, 213/223 ^  
- PH 211/221, 212/222, 213/223^  

^The calculus-based series is required for some CH majors (depending on option selected).

**Principles of Biology**

- BIO 211/211L, 212/212L, 213/213L^  
- BI 211, 212, 213  

Required for some CH majors depending on option selected.

**Organic Chemistry**

- CHE 231/231L, 232/232L, 33/233L^^  
- CH 331, 332, 337  
- CH 331, 332, 337  

^If taken at KCC, student must pass ACS Organic Exam to receive upper division credit for OSU.  
http://chemistry.oregonstate.edu/organic_chem_transfer  
Students should take the entire Organic Chemistry series at either KCC or OSU. Do not split series between schools.

^CH 200-series and PH 21x/22x series at OSU and the BIO, CHE, & PHY series at KCC have separate course numbers Lecture/Lab or Lecture/Recitation.
General Education Courses: (called the Baccalaureate Core)

- Complete one course in each Perspectives category with no more than two in the same department.
- The Oregon AAOT satisfies all lower division requirements of the Baccalaureate Core (all but Synthesis Courses*).
- The College of Science allows courses to double count between your major and the Baccalaureate Core.
- See Baccalaureate Core transfer guide* for specific community college courses meeting these requirements: http://oregonstate.edu/admissions/main/baccalaureate-core-course-equivalencies

### SKILLS COURSES

<table>
<thead>
<tr>
<th>Math</th>
<th>Completed as part of major. Required to transfer.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing I</td>
<td>WR 121. Required to transfer.</td>
</tr>
<tr>
<td>Writing II</td>
<td>Many options, see transfer guide*</td>
</tr>
<tr>
<td>Speech (Writing III)</td>
<td>Many options, see transfer guide*</td>
</tr>
<tr>
<td>Fitness</td>
<td>HPE 295</td>
</tr>
</tbody>
</table>

### PERSPECTIVES COURSES

| Biological Science   | Often completed as part of major                 |
| Physical Science     | Completed as part of major                       |
| 2nd Biological or Physical Science | Completed as part of major         |
| Cultural Diversity   | Many options, see transfer guide*                |
| Literature and the Arts | Many options, see transfer guide*            |
| Social Processes and Institutions | Many options, see transfer guide*     |
| Western Culture      | Many options, see transfer guide*                |

### DPD COURSE

| Difference, Power, & Discrimination | Many options, see transfer guide* |

### SYNTHESIS COURSES*

| Contemporary Global Issues | Upper division course, take at OSU |
| Science, Technology, & Society | Upper division course, take at OSU |

### Important Notes and Resources:

- For science students, the best time to transfer is fall term, particularly due to the science series courses. Talk with an OSU advisor about your specific timeline.
- Students do not have to complete a transfer degree in order to transfer to OSU. Following the sample two-year plan below can help ease the transfer.
- Preparing to apply to OSU? See admissions info: http://oregonstate.edu/admissions/transfer.html
- Want to take classes at both OSU and an Oregon community college? Check out the Degree Partnership Program: http://oregonstate.edu/partnerships/students

### Example Two-Year Transfer Plan:

This is one possible plan based on full-time attendance. See your community college academic advisor to create your personalized plan.

<table>
<thead>
<tr>
<th>Fall Term</th>
<th>Winter Term</th>
<th>Spring Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>Math</td>
<td>Math</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>General Chemistry</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>Principles of Biology (if required)</td>
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</tr>
<tr>
<td>WR 121</td>
<td>Bacc Core</td>
<td>Bacc Core</td>
</tr>
<tr>
<td></td>
<td>Bacc Core</td>
<td></td>
</tr>
</tbody>
</table>

- **Year 2**
  - Math (if needed) or Bacc Core
  - Physics
  - Organic Chemistry
  - Math (if needed) or Bacc Core
  - Physics (if correct version offered)
  - Organic Chemistry
  - Math (if needed) or Bacc Core
  - Physics (if correct version offered)
  - Organic Chemistry

### Advising Contacts:

Academic advisors at your community college and OSU are available to answer your questions and assist you in creating a transfer plan. See your community college advisor first, and use this Transfer Guide to help you plan. Also, consider visiting OSU to take a campus tour and meet with an advisor. See http://oregonstate.edu/visitosu/tour to schedule your personalized visit.

Klamath Community College [http://www.klamathcc.edu/Academics/Academic-Advisors](http://www.klamathcc.edu/Academics/Academic-Advisors)

OSU Biochemistry & Biophysics Dr. Kevin Ahern, 541-737-2305, ahernk@onid.orst.edu

OSU Chemistry Dr. Christine Pastorek, 541-737-6732, christine.pastorek@oregonstate.edu

OSU College of Science main office 541-737-4811, science@oregonstate.edu