## Course Change Proposal

### Form A

<table>
<thead>
<tr>
<th>Academic Group (College):</th>
<th>Natural Sciences and Math</th>
<th>Academic Organization (Department):</th>
<th>Chemistry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Course Proposal:</td>
<td>New <em>X</em> Change <em>X</em> Deletion <em>X</em></td>
<td>Department Chair:</td>
<td>Susan Crawford</td>
</tr>
<tr>
<td>Does this course fulfill a requirement for single-subject or multiple subject credential students?</td>
<td>Yes <em>X</em> No <em>X</em></td>
<td>Submitted by:</td>
<td>Linda Roberts</td>
</tr>
<tr>
<td>For Catalog Copy:</td>
<td>Yes <em>X</em> No <em>X</em></td>
<td>Semester Effective:</td>
<td>Fall <em>X</em>, Spring <em>X</em>, 2008</td>
</tr>
<tr>
<td>CCE (Extension):</td>
<td>Yes <em>X</em> No <em>X</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course replaces experimental course Subject Area (prefix) and Catalog Nbr (course number):

<table>
<thead>
<tr>
<th>Change from:</th>
<th>Change to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject Area (prefix) &amp; Catalog Nbr (course no.):</td>
<td>Subject Area (prefix) &amp; Catalog Nbr (course no.):</td>
</tr>
<tr>
<td>CHEM 164</td>
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</tr>
<tr>
<td>Title:</td>
<td>Title:</td>
</tr>
<tr>
<td>Macromolecular Laboratory Techniques</td>
<td>Advanced Biochemistry Laboratory</td>
</tr>
<tr>
<td>Units:</td>
<td>Units:</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**JUSTIFICATION:**

Chemistry 164 is an independent projects class which relies on techniques taught in the previous course, Chemistry 162 (General Biochemistry Laboratory). The current name is misleading, since laboratory techniques are not directly taught in Chemistry 164.

**NEW COURSE DESCRIPTION:** (Not to exceed 80 words, and language should conform to catalog copy. See http://www.csus.edu/acaf/univmanual/crappsl.htm - Guidelines for Catalog Course Description)

**CHEM 164.** Advanced Biochemistry Laboratory. Capstone course which emphasizes biochemical laboratory experimental design and trouble-shooting skills. Common biochemistry laboratory techniques are applied in semester-long individual student projects. Discussion one hour, laboratory six hours. **Prerequisite:** CHEM 162 or equivalent; ENGL 020 or an equivalent second-semester composition course. 3 units.

**Note:**

**Prerequisite:** CHEM 162 or equivalent; ENGL 020 or an equivalent second-semester composition course.

**Enforced at Registration:** Yes _X_ No _X_

**Corequisite:**

**Enforced at Registration:** Yes _X_ No _X_

**CAN (California Articulation Number):**

**Graded:** Letter _X_ Credit/No Credit _X_

**Instructor Approval Required:** Yes _X_ No _X_

**Course Classification (e.g., lecture, lab, seminar, discussion):**

C2, C16

**Title for CMS (not more than 30 characters):**

Advanced Biochemistry Lab

**Cross Listed?**

Yes _X_ No _X_

If yes, do they meet together and fulfill the same requirement, and what is the other course.

**How Many Times Can This Course be Taken for Credit?**

_once_

**Can the course be taken for Credit more than once during the same term?** Yes _X_ No _X_
FOR NEW COURSE PROPOSALS OR SUBSTANTIVE CHANGES ONLY:

Description of the Expected Learning Outcomes: Describe outcomes using the following format: “Students will be able to: 1), 2), etc.” See the example at http://www.csus.edu/acaf/example.htm

**Attach a list of the required/recommended course readings and activities [Note: it is understood that these are updated and modified as needed by the instructor(s).] This attachment should be forwarded only to your Dean's office, not Academic Affairs.

Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above:

For whom is this course being developed?
Majors in the Dept ___ Majors of other Depts ___ Minors in the Dept ___ General Education ___ Other ___

Is this course required in a degree program (major, minor, graduate degree, certificate)? Yes ___ No ___

If yes, identify program(s):

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer facilities, faculty, etc.)? Yes ___ No ___

If yes, attach a description of resources needed and verify that resources are available.

Indicate which department or programs will be affected by the proposed course (if any).

The Department Chair's signature below indicates that affected programs have been sent a copy of this proposal form.

Approvals: If proposed change, new course or deletion is approved, sign and date below. If not approved, forward without signing to the next reviewing authority, and attach an explanatory memorandum to the original copy.

Signatures:
Department Chair: ___________________________ Date: 9/19/07
College Dean or Associate Dean: ________________ Date: 9/20/07
CPSP (for school personnel courses ONLY)
Associate Vice President
and Dean for Academic Programs

Distribution: Academic Affairs (original), Department Chair and College Dean. Dean’s office to send original after approval to Academic Affairs, at mail zip 6016. An electronic copy must also be sent.