Wilkes University Curriculum Committee

PROPOSAL SUBMITTAL FORM

Directions:

- Use this set of forms for all proposals sent to the Curriculum Committee.
- Pages 1-3 of this document are required. Any unnecessary forms should be deleted from the packet before submissions. If multiple forms are needed (course addition, course deletion, etc), simply copy and paste additional forms into this packet.
- Note that all new programs (majors and minors), program eliminations, significant program revisions and all general education core revisions must be reviewed and approved by the Provost and Academic Planning Committee (APC) prior to submission to the Curriculum Committee. The Provost will make the decision if a program revision requires APC review.
- Completed and signed forms are due no later than the first Tuesday of every month. Submit one signed original hard copy and a scanned electronic copy with all signatures to the Chair of the Curriculum Committee.

1. Originator: Christopher Henkels
   Chemistry and Biochemistry Department
   (507) 408-4621; christopher.henkels@wilkes.edu

2. Proposal Title: Re-Introduction of Biochemistry Laboratory Course, 1 credit

3. Check only one type of proposal: (double click on the appropriate check box and change default value to “checked”).

☐ New Program. (Major or Minor Degree Programs). This requires prior review and approval by the Provost and APC.

☐ Elimination of Program. (Major or Minor Degree Programs). This requires prior review and approval by the Provost and APC.

XX Program Revision. Significant revisions to a program require review and approval by the Provost. The Provost determines if review and approval by APC is necessary.

☐ General Education Revision. Submissions only accepted from the General Education Committee (GEC). Must be reviewed and approved by the Provost.

☐ Creation of new departments, elimination of existing department. This requires prior review and approval by the Provost and APC.

☐ Course additions or deletions not affecting programs (such as elective courses, transition of “topics” courses to permanent courses).

☐ Change in course credit or classroom hours.

☐ Incidental Changes. Includes changes in course/program title, course descriptions, and course prerequisites. (Although these changes do require approval by the Curriculum Committee, they do not go before the full faculty for approval).

☐ Other (Specify)

1
4. Indicate the number of course modification forms that apply to this proposal:

XXX Course Addition Form (plus syllabi)
Course Deletion Form
XXX Course Change Form

5. Executive Summary of Proposal.
Briefly summarize this proposal. The breadth and depth of this executive summary should reflect the complexity and significance of the proposal. Include an overview of the proposal, background and reasoning behind the proposal and a description of how the proposal relates to the mission and strategic long-range plan of the unit and/or university. For incidental changes a one or two sentence explanation is adequate.

Biochemistry is an empirical field of chemistry; a laboratory component/companion, therefore, is critical to complement/supplement the traditional BIOC lecture content for the Wilkes student (i.e., the budding scientist and/or medical professional). Here, the syllabus for a newly reinstated proposed one-credit biochemistry laboratory course, tentatively entitled “CHM 363: Biochemistry Laboratory”, is submitted for the University Curriculum Committee’s consideration. The primary benefit of the incorporation of the proposed BIOC laboratory course is the practical exposure that students will have to the hands-on experiments and techniques that are commonly utilized by biochemists. Specifically, students will be exposed to various aspects involved in biomolecule purification and characterization, including chromatographic separation, gel electrophoresis, and kinetic enzyme assays, among other techniques. As the proposed laboratory course content overlaps with several topics covered within Biochemistry: Structure & Function lecture (CHM 361), it is suggested that CHM 361 serve as either a co-requisite and/or a pre-requisite for CHM 363. BIOC majors would therefore have a total of 4 credits in the combined fall course sequence of CHM 361 and CHM 363. Ultimately, the addition of an obligatory one-credit biochemistry laboratory course to the BIOC program would slightly reduce the required total of credits of Integrated Laboratory (i.e., CHM 370, 371, and 372; denoted CHM 37X) for BIOC, and even CHM, majors. See item #6 for specific changes.

6. Other specific information. (Not applicable for incidental changes.)

What other programs, if any, will be affected by this proposal? Describe what resources are available for this proposal. Are they adequate? What would be the effect on the curriculum of all potentially affected programs if this proposal were adopted? Include any potential effects to the curriculum of current programs, departments and courses.

Presently, CHM and BIOC majors in the B.S. track are required to complete four (4) and three (3) credits of Integrated Laboratory (CHM 37X), respectively. CHM 37X is the department’s upper-level laboratory course that is meant to expose students to experiments related to the five major areas of chemistry, of which biochemistry is one area. Therefore any CHM or BIOC major that takes the combined fall CHM 361/363 courses would need one less credit of CHM 37X for his/her program (i.e., three credits of CHM 37X for CHM majors, and two credits of CHM 37X for BIOC majors). The Course Change Form highlighting the proposed change in the number credits of CHM 37X required for CHM and BIOC majors in the B.S. track is also appended to the proposal. The only
other potential effect to other programs, departments, etc. is that a non-major who wishes to enroll into CHM 361 (3 credits) must also enroll into the companion CHM 363 (1 credit). I.e., the additional credit must be accounted for within the non-CHM/BIOC-major's degree audit. Lastly, it is proposed that CHM 363 have a laboratory course fee commensurate with any other CHM laboratory course, to help defray the cost of chemical supplies and materials for the course.

7. **Program Outline**: (Not applicable for incidental changes).
   
   A semester-by-semester program outline as it would appear in the bulletin for a new program or any modified program with all changes clearly indicated.

N/A
8. Signatures and Recommendations. (please date)
   • Signatures of involved Department chair(s) and Dean(s) indicate agreement with the proposal and that adequate resources (library, faculty, technology) are available to support proposal.
   • If a potential signatory disagrees with a proposal he/she should write "I disagree with this proposal" and a signed statement should be attached to this submission.

Print Name/Title

Department of Biology/chair(s) of all potentially affected programs

Signature
Date

Print Name/Title

Department of Chemistry & Biochemistry/chair(s) of all potentially affected programs

Signature
Date

Print Name/Title

Department of Electrical Engineering & Physics/chair(s) of all potentially affected programs

Signature
Date

Print Name/Title

Director Bioengineering Program/chair(s) of all potentially affected programs

Signature
Date

Print Name/Title

College of Science & Engineering Dean/dean(s) of any potentially affected College/School.

Signature
Date

Print Name
Registrar

Signature
Date
**Provost** (For new programs, significant revisions and revisions to the General Education Program revisions only).

Provost should check here ___ if this proposal is a program revision AND the significance of the revision requires review and approval by APC prior to Curriculum Committee.

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Chair, Academic Planning Committee. For new programs, program revisions sent via the provost. Signature indicates that the proposal has been reviewed and approved by APC.

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Chair, General Education Committee. For revisions to General Education program only. (Signature indicates that the proposal has been approved by GEC).
1. Course Title: **Biochemistry Laboratory**

2. Course Number: **CHM 363**
   Coordinate with Registrar to insure course number is available

3. Course Credit Hours:
   Classroom Hours _____  Lab Hours 3  Other _____

4. Course Prerequisite or Corequisite: **CHM 361**

5. Course Description (as proposed for the Bulletin):
   Course descriptions provide an overview of the topics covered. If the course is offered on a scheduled basis, i.e. every other year, or only during a set semester, note this in the description. Course descriptions should be no more than two to three sentences in length.

   The course description from the 2002 – 2003 Undergraduate Bulletin is suitable for the proposed course:

   **CHM 363. BIOCHEMISTRY LABORATORY**  One Credit
   Laboratory experiments, which emphasize biochemical techniques used in isolation and characterization of macromolecules. Included in the course are various chromatographic techniques, electrophoresis, spectrophotometry, and classic biochemical methods. Laboratory, three hours a week. Fee: $XXX.
   Prerequisite or Corequisite: CHM 361 or permission of instructor.

6. Required Documentation:
   Proposed Syllabus  Attach proposed syllabus immediately after this document. In some situations the official syllabus may contain information which is beyond the review needs of the Curriculum Committee (such as extensive rubrics, etc). It is permissible to attach an abbreviated syllabus. In general, syllabi (whether full or abbreviated) should contain the following information: Course Title, Course Number, Credit hours, Faculty Information (name contact information, office hours), Course Description, Course Outcomes or Objectives, Assessment (grading) informations, required texts (or other things such as tools, software, etc), pertinent policies and a proposed schedule of topics.

   See attached syllabus for proposed CHM 363. Documents for the specific laboratory experiments highlighted in the proposed CHM 363 syllabus can be provided, upon request.
Wilkes University Curriculum Committee
COURSE CHANGE FORM

Directions: Use this form to change information relating to an existing course. Please note, changes to course number require separate course addition/deletion forms (not this form!). Only indicate changes that are proposed (existing and proposed), other fields should be left blank.

Course Number: CHM-370, CHM-371, and CHM-372; collectively entitled CHM-37X
Course Title: Integrated Chemistry Laboratory

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Existing</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Integrated Chemistry Laboratory</td>
<td>Integrated Chemistry Laboratory (i.e., no change in course title)</td>
</tr>
<tr>
<td>Course Credit hours. (Indicate classroom, lab or “other” hours.)</td>
<td>CHM/BIOC majors (B.S.) are required to take 4/3 credits of CHM-37X for the degree</td>
<td>CHM/BIOC majors would take one less CHM-37X credit, i.e., 3/2 credits for CHM/BIOC majors, if student takes proposed CHM-363, Biochemistry Laboratory, course.</td>
</tr>
<tr>
<td>Course Prerequisites</td>
<td>CHM-232, CHM-234 &amp; CHM-341, with a grade of 2.0 or better.</td>
<td>CHM-232, CHM-234 &amp; CHM-341, with a grade of 2.0 or better.</td>
</tr>
<tr>
<td>Course Description (as proposed for Bulletin)¹</td>
<td>Course description shall be unchanged.</td>
<td>Course description shall be unchanged.</td>
</tr>
</tbody>
</table>

¹Course descriptions provide an overview of the topics covered. If the course is offered on a scheduled basis, i.e. every other year, or only during a set semester, note this in the description. Course descriptions should be no more than two to three sentences in length.