



**COMMITTEE ON ACADEMIC PLANNING AND REVIEW
RUBRIC FOR ANNUAL PROGRAM REPORT REVIEW**

History:

08-09 CAPR 23 (revised)

NOTE TO CAPR REVIEWER:

Read the Annual Report submitted by the program by visiting the [Five-year Reviews and Annual Reports by Department](#) page on the Academic Senate website; find the CAPR document that pertains to the last five year review (e.g. 08-09 CAPR 42). Read this document and identify the main issues raised by CAPR with respect to the five year plan and the goals set for this project in the intervening five years to the next program review. Report back on the program and the degree to which the Annual Report a) addresses the five year planning horizon as appropriate, and b) addresses the specific elements as parsed out below (questions 1-4).

YEAR: Academic Year 2014-2015

PROGRAM: Chemistry and Biochemistry

LAST FIVE-YEAR REVIEW: 2012-2013

NEXT FIVE-YEAR REVIEW: 2018-2019

CAPR REVIEW AND RECOMMENDATION DOCUMENT:

(i.e. 13-14 CAPR 22 on [Five-year Reviews and Annual Reports by Department](#) webpage)

1.

Does the Annual Report have a self-study (one page)?

Yes No

1a.

Does the Annual Report record progress with departmental planning and review? – does it describe progress toward the program’s defined goals, any problems reaching its goals, any revisions to goals, and any new initiatives taken with respect to goals?

Yes No

The annual review describes several areas in which the Dept. of Chemistry and Biochemistry (DOCB) has made progress toward their defined goals to improve the overall undergraduate programs. For example, their Chem. 1100 course, both the lecture and laboratory, have been redeveloped to help Liberal Art Majors better understand the material. The DOCB has added new experimental laboratory course to the course as a major elective to the B.S. Chemistry, B.A. Chemistry and B.A. Biochemistry degree programs, thereby allowing students to gain credit for service learning and has increased their graduate level courses to allow more diversity of courses for students receiving their Master Degree in Chemistry or Biochemistry.

1b.

Does the Annual Report provide information on the program’s assessment processes? – does it provide information indicating the results of the program’s assessment efforts and/or efforts to further develop its assessment efforts?

Yes No

1c.

Does the Annual Report detail progress on fulfilling programmatic needs? – does it record significant events which have occurred or are imminent, such as changes to resources, retirements, new hires, curricular changes, honors received, etc?

Yes No

The DOCB has hired two faculty members since their last five-year report, which has allowed Advanced Inorganic Chemistry series (CHEM 4161-4162) every year as required for accreditation of our B.S. Chemistry degree. Additionally, the Department scheduled CHEM 4161-4162 in 2014-15 and will schedule it again in 2015-16. The DOCB hired a new biochemist and inorganic chemist, both of whom joined the department in Fall 2013. In 2014 they hired a tenure-track physical chemist. This helped to reduce the number of lecturers in the Department. The DOCB is still accredited by the American Chemical Association and has increased the number of major equipment resources over the past year due to allocation of A2E2 funding. Obviously, there will be significant changes in the next two years as the DOCB move to the semester system.

2.

Does the Annual Report have a summary of assessment results and ensuing or necessary revisions (one page)?

Yes No

Please identify whether the following information is identifiable:

Which student learning outcome was assessed:

Yes No

SLO-2 was assessed as planned for Year 2 but data for SLOs 1 and 4 was also collected.

What assessment instrument(s) were used to measure this SLO:

Yes No

The methods included use of standardized national exams, capstone laboratory exercises, embedded exam questions, analysis of ability to critically analyze experimental results and critiques of oral presentations of complex information.

What participants were sampled to assess this SLO:

Yes No

Undergraduates and Graduate Students

What assessment results were obtained, highlighting important findings from the data collected:

Yes No

See Below

How the assessment results were (or will be) used as well as any revisions to the assessment process the results suggests are needed:

Yes No

See Below

2a.

Does the Annual Report contain a reflection upon progress made and changes with respect to the student learning outcomes assessment plan that is reported on in the five-year review self-study?

Yes No

SLO-2 was assessed for graduate students matriculating in CHEM 4240 using embedded exam questions and for CHEM 6430 by analyzing experimental results presented in student notebooks. Most students did well on course learning outcomes 1,2, 4 and 6, but the majority of the students failed to master the outcomes for advanced spectroscopy (3, 4 and 7). This of course is somewhat expected due to the short period of time in which students must master a very difficult concept. Potentially, some extra time on the subject could be of benefit to students. However, with regard to SLO-2 Protein Chemistry Techniques course (CHEM 6430) provided more encouraging results. Analysis of the laboratory notebooks indicated that the majority of the Master's students (83-100%) achieved all three -experimental learning outcomes, meaning they were able to effectively use instrumentation and biochemical methods to solve experimental problems and test hypotheses. This indicates that the Department is doing well at serving their students with regard to SLO-2 in an experimentally intense course, especially at the graduate level. This should help gear courses to areas in which more focus may be needed to strengthen student learning

2b.

Does the Annual Report describe any changes made to the assessment plan in the preceding 12 months, summarize activities carried out to implement the assessment plan by the program in the preceding 12 months, and summarize the results of any SLO assessed in the preceding 12 months?

Yes No

Though the DOCB only had to assess one SLO in the past year they assessed three SLO's, giving them a head start as to where their program will need to work on course and program weaknesses. The Departments Annual Review very clearly indicated where the weaknesses of students lied and has stated they will make changes in those areas at both the faculty and lecturer level to address these problem areas.

3.

Does the Annual Report have numeric data summaries of the program obtained from Institutional Research, Analysis and Decision Support (one page)?

Yes No

Does the Annual Report numeric data summary include:

3a. Student demographics of majors?

Yes No

3b. Student level of majors?

Yes No

3.c Faculty and academic allocation?

Yes No

3.d Course data?

Yes No

3.e One or two pages of supplemental information, as appendices, in the form of graphical presentation (e.g., line graphs), tables, and pertinent discussion which summarize the data of the last several (3-5) years to make changes and trends more apparent (note, this is suggested i.e. optional)?

Yes No

(see 4. below for details if Yes).

4.

In addition to the required elements of the Annual Report (1-3 above), does the Annual Report include any elements

that were not requested?

Yes No

Comments: Yes, though this was an Annual review of the undergraduate B.S./B.A. programs, assessment data was given for several SLO's as well as assessment data of the graduate program. Data from all SLO's were in excellent easy to read and decipher tables allowing reviewers to easily obtain important data.