

**Student Forum – October 14, 2016**  
**Summary and Response Document**

Facilitators: Matt Moffitt and Peter Wan (22 in attendance)

Student feedback in red

Department response in blue

### **1. Course Support Outside of Class**

We need more drop-ins for CHEM 213. Students follow the instructions and complete the spectroscopy but still don't know exactly what they did. The lab goes through the material too fast and there is too much material; it's difficult to keep up and learn at the same time. We would like to be able to follow up and ask questions about the lab.

TA resources were recently redistributed by the Department due to inequities that seriously disadvantaged certain courses. For example, CHEM 231 had a very low level of TA support and CHEM 213 had the highest level TA support of all chemistry courses. Since these TA redistributions were made, the student success rate in CHEM 213 remains one of the highest of our second-year courses. The Chair will ask the senior lab instructors (SLIs) to consider assigning some TA time for support beyond the regularly scheduled times.

### **2. Time to Complete a Chemistry Degree**

The majority of students present raised their hands when asked "How many of you would like to complete their degree in four years?" Students were then asked "Why do students take more than four years to complete a bachelor's degree?"

It is a trend for students to only take 4 courses to ensure better grades.

The Department strongly encourages students to plan their program and course load in order to complete their bachelor's degree in four years. **Finishing a degree in four years** and getting an earlier start in a job or advanced degree **provides students with significant financial and professional advantages** that far outweigh any perceived advantage of taking a lighter course load.

36X courses contribute to a longer completion time. More 36X courses in the summer would help; at least both 364a and 364b.

The Department is currently discussing possible adjustments to the 36X courses.

Taking co-op adds time to a degree.

Certainly a co-op degree cannot be completed in four years, but co-op students gain work experience as a result of a longer completion time. However, co-op students are also encouraged to plan their program and course load in order to complete their degree in as timely a manner as possible.

### **3. Student Workload**

#### **CHEM 36X courses**

Taking CHEM 36X courses is twice as difficult as courses with 1.5 units of credit; BIOC breaks up their labs into 4 hours one day and 2 hours the next day which works well. A lot of time is being spent on .75 units compared to time spent on BIOC labs for 1.5 units.

The Department is currently discussing possible adjustments to the 36X courses.

No consistency in length of time it takes to complete experiments in the different 36X courses – an experiment in one course can be completed in the allotted 3 hours and in another course an experiment will take 5 hours to complete. Some labs have long experiments which means there isn't enough time to correct (and learn from) mistakes and still finish within 3 hours. This affects a student's ability to do well which means they dread going to the lab. Plus this makes it difficult when registering for courses because you don't know whether to schedule another course immediately after a 36X course.

The Department is currently discussing possible adjustments to the 36X courses.

Experiment write-ups take too long. Would be nice to know the average time students take to complete a report. There is too much repetition in report writing between the 36X courses. Students don't get enough feedback on scientific writing so the lab reports for some courses are not a valuable exercise; lab reports are not a good learning tool.

Although the Department has made recent improvements to the workload in CHEM 36x courses in terms of report writing, we acknowledge that more needs to be done to improve the efficiency and increase the pedagogical value. The Department is currently discussing possible adjustments to the 36X courses.

#### **CHEM 213**

The lab and lecture material could be more integrated and taught consecutively.

The CHEM 213 lab should be a pre-requisite for the CHEM 232 lab.

This is not feasible since CHEM 232 is required by biology students who do not take CHEM 213. The student success rate in CHEM 232 labs is high, so the Department does not currently see a need to add 213 as a prerequisite.

### **4. Other Questions, Suggestions, and Concerns**

Would like more 4th year courses to be offered every year rather than every other year.

The Department monitors the frequency of fourth-year course offerings based on student demand/enrollment. The Department will discuss the possibility of offering some fourth-year courses more frequently but needs to find the right balance between course availability and efficient use of resources.

Analytical labs make sense but in other labs it's not clear how the knowledge can be used in the real world.

The Department recognizes the immense value of experiential learning that makes strong connections with the real world. The Department will investigate the strength of these connections in the current labs at the level of the teachers and evaluate if improvements can be made to make the labs more relevant to modern chemical research and/or industry.

Information/examples in BIOC/MICR come from recent literature – many upper level chemistry courses are missing that, instead older textbooks are used. Current examples help to make a connection to the material being learned. Also it's good to learn how to critically read a research paper before you graduate.

The Department agrees that examples from the literature, including critical evaluation of the recent literature, should be an important component of upper-level chemistry courses. The Department will encourage all teachers of upper-level courses to incorporate more such examples into their courses.