

TOXICOLOGY CURRICULUM COMMITTEE

August 21, 2009

9:00 AM, Sugar Hall, room 259

AGENDA

(Minutes)

Attendance: Kevin Baer, Sharon Meyer, Hari Mehendale, Shannon Banks, John Herrock

Student Progression Issues

Several courses impact the progression of toxicology students – Chemistry 240, 241 (Quantitative analysis) and Chemistry 407 (Instrumental analysis). Students need a “C” or better in Chem 240 to progress to Chem 407 and there are a limited number of slots available in Chem 407. Failure to make a “C” or better in Chem 240 delays progression and graduation or results in students taking Chem 407 (or equivalent) at other Universities that do not have the Chem 240 “C” requirement. Discussion centered around options for improving the progression, retention and graduation rates of our students. Dr. Baer plans to meet with Dr. Brotherton and discuss these issues.

Degree plan

Discussions centered around adding Toxi 101/201 On-line courses in the summer for the pre-pharmacy students. These students have a large course load during the spring/fall semesters and generally are not able to take Toxi 101. Offering Toxi101 and 201 will give the students an opportunity to be exposed to toxicology as another degree option. The group also discussed moving Toxi 101 to the Freshman year. Currently, students do not take Toxi 101 until the second year. Several electives could be moved to the second year to make room for Toxi 101.

Problem classes

Chemistry

Several options were discussed around Chem 240 and the impact on progression of our students. Over the past few years, a majority of our

students have not been able to pass (“C” or better) Chem 240 and progress into Chem 407 – resulting in delayed graduation. Several students have to take Chem 240 two or three times before they progress. Other students opt to take the courses at other institutions (i.e., Southeastern). According to Dr. Brotherton (Chem dept. head) there is a disconnect between Chem 107/108 (inorganic chemistry) and Chem 240. He maintains that Chem 107/108 needs to be taken closer to Chem 240. Currently, Chem 107/108 is in the first year and Chem 240 is in the third year of the toxicology curriculum. The concepts gained from Chem 107/108 may not be retained and therefore impact student success in Chem 240. One solution would be to move Chem 230/232 (organic chemistry; currently in the second year) to the third year and move Chem 240 to the second year. In this way, students would take 107/108 in the first year and immediately take 240 the next year.

Other options were discussed including removing Chem 240 from the curriculum and expand the labs (Toxi 413, 414) and/or add labs to Toxi 201 and 301 (environmental and forensic tox, respectively) and teach quantitative chemistry concepts/methods in these labs.. This would allow students to gain competency in quantitative chemistry skills that are needed specifically in those respective toxicology fields. Other options include: restructure the current 240 to better target skills/competencies that enhance success of our student; create a joint appointment in chem/tox and offer a new course that targets chem. methods important in Toxi 201 and 301; change the Chem 240 progression requirement from a “C” to a “D”. Along with the proposed changes to Chem 240, there remains limited space in Chem 407 (16 total slots; several reserved for Chemistry students). One plan is to replace Chem 407 with analytical toxicology, a course that was originally taught in the curriculum and replaced by Chem 407. These options will be discussed with Dr. Brotherton in the next few days.

Other Items

Discussion about the drug license – currently Phenobarbital is used in the Toxi 413 labs to show the effect of metabolic induction on sleep times in rodents. We either need to purchase an individual license or replace the lab experiment with another chemical that would demonstrate enzyme induction without the need for the scheduled drug. Another option would be to create a video showing the demonstration.