



**AGENDA/MEETING MINUTES**  
**Chemistry Cluster**  
**October 27, 2009 Amended**  
**NS 137**

---

---

**ITEM 1. Please review your cluster's courses on the new course outlines database at <http://www.pbcc.edu/x17364.xml>. Please check the information that was submitted from your cluster.**

Action: A request was made of the cluster members to check the areas of their expertise and report errors and/or omissions to the Cluster Chair.

**ITEM 2. Proposals advanced by Dr. Richard Shreeve (copy and paste plus Discussion and Action)**

NOTE: As the following is a copy and paste of a single document, the items were not separated.

PROPOSAL #1 Diversity of the Chemistry Faculty

Currently the Chemistry Cluster is limited to only full time PBCC employees. Since over half of the Chemistry courses are taught by talented adjunct faculty, it is in the interest of the Chemistry Cluster to include these individuals in the proceedings of the Cluster.

Currently the related State College to the south, Broward State College, incorporates adjunct faculty members in their Cluster meeting to include voting with a .33 vote. This is an effort to broaden the base of the Chemistry Cluster and to utilize the past experience and education of the adjunct members.

MOTION: It is the sense of the Chemistry Cluster to have qualified & regularly appointed adjunct members be voting members of the Chemistry Cluster.

Discussion: Information provided by Dr. Sharon Sass is as follows:

- 1-Adjuncts can be invited, but will have to attend on their own time (unpaid).
- 2-No vote as it would cause problems for the institution.

Action: Voted against consideration.

PROPOSAL #2 Extension of the Chemistry Honors Program

Currently PBCC offers CHM1045H in an Honors format. Only approved students accepted into the Honors College are allowed into this course. The format is in a seminar setting and utilizes more extensive math and vastly increased number of problems. As in most Honors courses offered at PBCC, the maximum number of students is 15.

The related lab, CHM1045H is currently being offered on an experimental basis in a virtual format utilizing the software developed by Dr. Brian Williams at BYU in Provo, UT. Currently BYU is utilizing this approach to educate about 350 students a semester in multiple lab sections. The students are required to perform additional literature research for each experiment.

Two or three of the experiments are going to utilize the Vernier equipment and format. The objective is to extend this successful model to include a full and complete Honors offering in General Chemistry. This would include CHM 1045H & CHM1046H along with CHM1045LH and CHM1046LH. This is especially important to excellent students seeking admission into competitive senior institutions.

MOTION: The Chemistry Cluster approves the continued offering of a two semester full year Honors program in General Chemistry.

Discussion: The information necessary for consideration was not presented. The members of the Chemistry Cluster requested a syllabus and a side-by-side comparison with the standard CHM 1045 before considering the honors course.

Action: Delayed until data are presented

#### PROPOSAL #3 Student ACS Chemistry Club membership

Presently PBCC does not have an ACS approved student Chemistry Club charter. FAU does have a charter and have been successful in reviving student interest. Discussions with the FAU student Chapter have led to an informal agreement to allow PBCC Chemistry students to become regular members. Details with the ACS have yet to be completed but approval of the Chemistry Cluster is needed to proceed. This will allow PBCC Chemistry students to receive the benefits of ACS student membership including reduced fees and attendance at national & regional meetings.

MOTION: It is the sense of the Chemistry cluster faculty to allow current PBCC students to become dues paying members of the FAU student ACS affiliated Chemistry Club.

Discussion: Information provided by Dr. Sharon Sass is as follows:

An agreement would have to be set up between FAU and PBCC, college-wide. That agreement would have to be made on the administrative level.

Action: Dropped

#### PROPOSAL #4 Reform of text book selection and use.

Currently the Chemistry Cluster functions as a committee of the whole in selecting a single text book for a three year period. After this past year the four campi are no longer equal in equipment and facilities. There is no longer equivalent settings for teaching General Chemistry of Organic Chemistry. In addition the needs of the individual student vary in their goal and objectives. With the forthcoming proposed BAS degree in Engineering, the interest differences will widen. The selection of two texts utilizing sub committees would appear to better serve the students and the goals of soon to be Palm Beach State College and to adjust for the differences in facilities.

MOTION: The Chemistry Cluster text book selection be made by a selected interested faculty subcommittee, no 2 from any one campus, of voting Chemistry Cluster members.

Discussion: Information provided by Dr. Sharon Sass is as follows:

College policy states that all courses that are sequential (CHM 1045, CHM 1046) must use the same text. College policy states that adjuncts will use the same text college-wide.

*Chemistry Cluster:*

The cluster voted to have the same text be used college-wide for all courses. The two college policies are satisfied by that vote.

Action: Dropped

#### PROPOSAL #5 Evaluation of Chemistry Students

Evaluation of students in any subject is of current interest in the State of Florida. As PBCC morphs into PBSC, the interest in the quality of Chemistry students will increase. While the Chemistry Cluster can not

change the quality and training of incoming students, the Chemistry Cluster can evaluate the level of student understanding.

The ACS offers standardized exams in General Chemistry and Organic Chemistry for about \$25 per student. This includes grading and evaluation with national norms. Individual reports are available for each student to be used as needed. Most likely these results will be used on resumes and senior institution applications.

The aggregate score can be used by PBSC to illustrate the growing quality within the courses offered by the Chemistry Cluster.

The exam would be given at the end of a course and can not be used for grading purposes. The grading and return from the ACS is 4 to 6 weeks. The report is by individual student and the entire class.

MOTION: It is the sense of the Chemistry Cluster to evaluate student progress by utilizing the ACS national exams in General Chemistry and Organic Chemistry.

Discussion: NOTE: The monies mentioned would have to come from a source other than the college's funding. It is suggested that this topic be researched as to whether or not it is appropriate under the State of Florida guidelines and law.

Action: Dropped

#### PROPOSAL #6 Increasing the math requirements in General Chemistry

Studies have repeatedly demonstrated the impact of math on student performance in General Chemistry. Currently the Math requirement is College Algebra, similar to requirements in a high school and not a state college. Changing the math requirement to either MAC 1114 (Trig) &/or MAC 2233 (Pre-Calculus) would improve the quality level within CHM 1045 and CHM1046. Initially there could be a short term drop in enrollment with the changing of the requirement. It is expected this will be short lived as students get the word that taking CHM1045/1046 is not a high school repeat and that real performance is expected. MOTION: The math requirement for CHM1045 be changed to MAC 1114 with MAC 2233 suggested.

Discussion: Prerequisites for General Chemistry have been discussed in the past. A major problem of such is if additional math is approved as a pre-req, the time of completion for the chemistry sequence would exceed the mandated length (2 years) of study for the Associate degree. Although the cluster can pass on an increase, the probability of such a requirement surviving the Curriculum Committee is in question.

Action: Dropped

#### PROPOSAL #7 Development of an Organic Honors course & Virtual Lab

As well trained students progress through an Honors General Chemistry Sequence, the desire is to continue. This would allow select higher achieving students to graduate with 4 Honors courses in Chemistry. Combined with excellent scores on the national ACS exams, should make these student superb candidates for high quality senior institutions AND increase the perception of PBSC Chemistry quality.

MOTION: It is the sense of the Chemistry Cluster to encourage the development of an Honors course for Organic Chemistry (CHM2210 & 2211) and a related virtual Lab (CHM2210LH & CHM2211IH)

Discussion: The Chemistry Cluster cannot consider this motion as there is insufficient data presented to make an informed decision.

Action:None. Dr. Shreeve is free to gather appropriate data to present to the cluster members for future consideration.

### **ITEM 3. Selection of Cluster Chairperson**

**Discussion:** Current chairperson, Peter Krieger, is to retire Nov. 30, 2009. Opened the floor to nominations. Nominations were Cynthia Judd and Richard Shreeve (retracted in favor of Cynthia Judd).

**Action:** A vote was taken with a simple majority. Cynthia Judd, Eisey Campus, will assume the office of chairperson immediately and hold all meetings until the next election as the pleasure of the Chemistry Cluster.

### **ITEM 4: Addition of a lab component to Introductory Chemistry**

**Discussion:** The members of the chemistry cluster have no objection to a course number change.

The members of the Chemistry Cluster had a spirited discussion on the validity of a lab component for Introductory Chemistry (Introduction to Chemistry). The course was developed for and serves the purpose of providing students with a knowledge of the very basic tenants of chemistry with the goal of promoting success in CHM 1045 and CHM 1045L. The current course is specifically designed for those who wish to enter CHM 1045, which is not a beginning course in chemistry.

Comment was made relating to the high failure rate in General Chemistry if the student has not taken either a course in chemistry at the high school level or an introductory course in chemistry.

Another problem with adding a laboratory section for any course is that the laboratories on all three coastal campuses are at capacity. The addition of another laboratory without the construction of new laboratory facilities is not practical. The Chemistry Cluster did discuss the problem of staffing and felt that the current staffing problems are a distinct hindrance to the effective running of laboratories at the current rate.

**Action:** The Chemistry Cluster by unanimous vote wishes to go on record opposing the addition of a laboratory component to Introductory Chemistry.

**Attendance:** Joseph Ceravolo (excused to Rotary), Emma Chow, Sapna Gupta, Cynthia Judd, Peter Krieger, Trinishia Sellars, Richard Shreve

Submitted by:

Peter J. Krieger, EdD

c. Minutes Distribution List