**Title:** Developing dual-numbered upper division undergraduate/lower division graduate courses

**Facilitator:** Dr. Daniel T. de Lill, Assistant Professor of Chemistry & Biochemistry, Charles E. Schmidt College of Science

**Focus:** In times of economic distress, institutions often institute hiring freezes and ask more of the faculty that they currently have. In such an environment, it is difficult to build or even maintain a robust graduate program. A convenient solution is to include graduate students in an upper-division undergraduate course. This course would be dual-numbered and serve as a lower-division graduate course. However, care must be taken to ensure that the graduate students receive a substantial educational component through course augmentation, especially if the course is similar to one taken at their undergraduate institutions. A substantive graduate component to the course must be developed, including the possibility of extensive outside work and research.

Participants in this FLC will identify upper-division undergraduate courses in their departments to augment in order to double as a lower-division graduate course; discuss ways to enhance these courses, particularly creative additions that foster advanced critical analysis; develop graduate student workshops or activities to supplement in-class lectures and to delve into more advanced topics not introduced to the undergraduate students. Additionally, related fields may promote cross-disciplinary coursework by offering more graduate electives (e.g., a graduate student in physics or engineering may wish to take a materials chemistry course.)

**Participants:** This FLC is primarily targeted at tenured or tenure-track Graduate Faculty members who teach advanced undergraduate courses. The FLC participants should have already taught this course at least once, and it should be a course that can be adapted into a dual-numbered undergraduate/graduate course. Additionally, faculty with a pedagogic interest in this field are most welcome. However, all faculty are invited and encouraged to join this FLC.

**Outcomes:** This FLC will provide a framework on how to augment the undergraduate curricula to incorporate more educational opportunities for our graduate students. Thus:

- All participants will be expected to create a graduate syllabus for a double-numbered course based on an undergraduate course syllabus that they have already developed. All members of the FLC will assess these syllabi in order to offer suggestions and feedback. Specifically, details on how graduate students will be evaluated, additional work to be completed, and examination policies will be looked at.
• All participants will participate in a literature review to evaluate the current pedagogic basis for dual-numbered courses and/or evaluate “best-practices” from other institutions. This will be discussed early, and used to guide the FLC and the professional development of the participants.

• All participants will be required to design at least two out-of-class activities or assignments for the graduate students in their course. These activities should be tested on current graduate students in order to evaluate their effectiveness, with proper modifications done accordingly. 

• All participants will discuss these course modifications with their department chairs or other appropriate personnel, and apply for course approval through the proper channels. If approved, it is expected the participants will teach their courses at the earliest possible time.

• All participants will be expected to offer advice, suggestions, and healthy debate about how to guarantee that graduate students receive a substantial educational benefit from such courses.

• The FLC community as a whole will develop specific guidelines (best-practices) to assist other faculty members in adapting an undergraduate course into a dual-numbered course. In particular, minimum standards will be suggested that should guarantee a robust and challenging learning experience for the graduate students in the course. While an unofficial document, attempts will be made to distribute it to department chairs to discuss with their faculty. We will also seek approval to put the document on the FAU website.

**Potential Meeting Time:**

The leader of this FLC is available to schedule meeting on the following days at the indicated times: Ideally, this FLC will meet on the Boca Raton campus on Tuesdays or Thursdays at a time that is convenient for all participants during the Fall 2012 (except 11AM-12PM). MWF in the morning before noon also work for the leader. A convenient day and time for the Spring 2013 will be selected by the FLC participants in late Fall 2012. The FLC facilitator will take notes during the discussions and provide them to all members in a follow-up email. If faculty members at other campuses wish to participate, we will meet in a room set-up for videoconferencing.

**Stipend:** Participants will receive a $1,000 stipend for active participation in the FLC and upon fulfilling all FLC expectations. These expectations include attendance/participation in at least 80% of all group meetings and work, submission of an end-of-year report documenting individual outcomes and results for the FLC’s project(s), and completion of the end-of-year feedback survey.