SPECIAL TOPICS GRADUATE SEMINARS - MCB 290

Nature and Purpose of the MCB 290 Format:

An MCB 290 course is a special topics seminar course for graduate students that focus on a reasonably well-defined area of current research from within the broad range of disciplines represented in the MCB Dept. Each faculty member who is assigned the task of offering a 290 course should strive to make the subject material as topical and up-to-date as possible. The MCB Graduate Student Organization will poll students each spring for a list of recommended 290 topics which will be made available to all 290 instructors for the following academic year. One purpose of this kind of class is to expose students to the most recent conceptual and methodological advances in a particular field. The same faculty member in a given division will not normally give a 290 course more than once every two or three years; and, given the rapid pace of discovery in most areas, the subject matter covered should be different each time a faculty member offers a 290 course. A 290 course may only be offered by MCB faculty (or, occasionally, by visiting faculty), not by postdoctoral researchers, research staff, or graduate students.

Enrollment in each 290 is limited to a maximum of 15 participants. In the event of over-enrollment in a 290 seminar, criteria for acceptance are (in order of descending priority): (a) third-year (or beyond) MCB graduate students who have not yet completed the 290 requirement; (b) second- and first-year MCB students; (c) graduate students from other programs; (d) advanced undergraduates; and, (e) postdoctoral fellows. Auditors may be allowed at the discretion of the instructor.

A 290 seminar meets once a week for one to one-and-a-half hours, and carries one unit of credit. It must be taken for a letter grade. During the first session (organizational meeting), a convenient day, time and place for the course meetings will be established. In addition, at the first meeting or very shortly thereafter, the instructor will distribute to all of the participating students a list of recent papers on the topics to be covered, and each student should select (or be assigned) the paper(s) that will be presented. The instructor should also give the students a clear picture of the nature of the presentation expected. In general, the presentation should be a chalk talk, judiciously augmented by a presentation when useful, and the student should prepare a general reference list and hand-out be distributed to the rest of the class. During each meeting one (or sometimes two) students give a presentation. These presentations should provide sufficient background on the subject being covered, review the current state of knowledge in the area, and then critically analyze, in detail, the assigned paper(s). All students in the class are expected to read the specific paper(s) that will be presented at each session, which should be limited to one or two. In addition, regular attendance and active participation in discussions is required of all students in the seminar in order to receive a passing grade. A main role of the instructor is to ensure that an atmosphere is created that encourages a lot of discussion and the free exchange of ideas and information.

Scope of Offerings:

Each semester, the MCB Department will offer a minimum of six 290 seminars. The number of seminars offered by faculty of each Division will be determined by the proportionate faculty headcount of that Division. Effective Spring, 1992, the minimum numbers for each Division are as follows:

- BMB 9 seminars per two-year period (2+ seminars per semester)
- CDB 8 seminars per two-year period (2 seminars per semester)
- GG&D 3 seminars per two-year period (1 seminar per semester)
- IM&P 3 seminars per two-year period (1 seminar per semester)
- NEU 4 seminars per two-year period (1 seminar per semester)

Revised April 2009
Shortly before the beginning of each semester, the MCB Graduate Affairs Office will remind each Division Head to provide the names of the faculty who will offer a 290 course that semester. Furthermore, the MCB GAO will be responsible for publicizing information about the 290 seminar offerings, including topic, instructor, a brief description, day/time/place of the first organizational meeting, and course control number. In general, students do not pre-enroll in 290 seminars, but add them to their schedule early in the semester.

290 Requirement for Graduate Students:

Graduate students in MCB are required to take three special topics graduate seminars (290s, or other suitable alternatives) after they have passed the Qualifying Examination and been Advanced to Candidacy. Operationally, therefore, MCB students must take a total of three 290-type courses during their third-through-fifth years in the MCB Ph.D. program. Students generally take one seminar each year during this period, although they may elect to take two in one year and may take more than three.

At a time when students are at a more advanced stage of doctoral training and concentrating primarily on their thesis research in the laboratory, enrollment in a 290 course has the following primary objectives:

1. To hone their skills in making scientific presentations to their peers;
2. To keep them abreast of the most recent developments in a specific area that is perhaps outside of the scope of their thesis research and thereby to broaden their training; and,
3. To engage in lively intellectual exchange with other graduate students from a variety of laboratories in the department and thereby to enhance the cohesiveness of our program.

First and second-year MCB students are welcome to take 290 seminars, if space is available; this participation will, however, not count towards fulfilling their three-course requirement following advancement to candidacy.

Alternative Ways to Fulfill the 290 Requirement:

There are two alternative means of fulfilling the 290 requirement, each of which may be used only once by any given MCB graduate student.

1. **Equivalent offerings by other departments**: A variety of seminars offered by faculty in other departments, such as Plant Biology or Public Health, are similar to our 290 seminars in nature and scope. A student who wishes to use such a seminar towards fulfilling the 290 requirement must first obtain approval from both the Divisional 2nd-year-and-beyond Graduate Advisor and the Head Graduate Advisor of MCB. Such approval will be granted for non-MCB seminars on a case-by-case basis. A record of approval for a given seminar in a given semester will be kept in the student’s file in the Graduate Affairs Office.

2. **Teaching a DeCal course (MCB 198)**: Graduate students may fulfill one of their three MCB 290 requirements by leading a MCB 198 DeCal course. Each semester up to 6 sections of MCB 198 may be offered based on the current research literature. Students interested in offering a MCB 198 must be Advanced to Candidacy and in good academic standing. No remuneration will be provided for teaching a DeCal course. Each section of MCB 198 may have a maximum of 10 students. The format includes an organizational meeting, followed by individual presentations by the students. The instructor and students create a reading list of 10 literature papers from the topic selected. Each student presents one paper and helps guide a question and answer period. The instructor critiques the presentations and facilitates discussion of papers. Students who teach a MCB 198 will be given MCB 290 credit by the GAO. Graduate students teaching an MCB 198 course SHOULD NOT register for either a MCB 290 or the MCB 198 during the semester in which the course is taught.

For further information on offering a DeCal course go to the MCB Undergraduate Affairs Office link at [http://mcb.berkeley.edu/undergrad/courses/courses/de-cal/](http://mcb.berkeley.edu/undergrad/courses/courses/de-cal/). You must meet all of the deadlines indicated with the exception that you must bring your completed forms to the GAO (not to the UAO) at least 2 days before the deadline so that the GAO can coordinate with and submit your forms to the Undergraduate Affairs Office. The faculty sponsor for the MCB DeCal Course Supplemental Application will be the Head Graduate Affairs Adviser.

Revised April 2009