

“TEACHING ELECTIVE”: WEILL CORNELL MEDICAL COLLEGE

Description (including how elective vs. ABS)

Goal: The overall goal of this course is to help students develop basic teaching skills that they can use in their interactions with each other, with the students they will encounter during residency, and, for those of entering academic medicine, with their students in years to come. We believe that as students learn more about teaching that they also become more aware about the activity of learning. To be a good physician over the years, one must also be a life-long learner.

Specifically, the objectives of the course are to

- Develop and/or strengthen various teaching skills
- Identify students’ own educational blind spots as teachers and learners
- Broaden their perspective on the clinical relevance of the basic science curriculum
- Recognize various learning styles as established by adult and transformational principles of teaching and learning
- Stimulate interest in curriculum development and educational research

Courses: Fourth-year students can sign up for one of three four-week teaching courses, dependent upon the practicum venue they desire:

- Teaching of Gross Anatomy
- PBL Case Writing and Facilitation
- Teaching Experience in Pathology

Each course is offered in four-week blocks dependent upon the schedules of when these teaching opportunities occur according to the first- and second-year basic science course schedules. These four weeks blocks are also in accord with the two/four-week rotation dates for the fourth-year student schedules.

The course can either be taken for elective credit or to meet the Advanced Basic Science Requirement needed prior to graduation (i.e., student must do **either** 8 weeks or more (at least 8 weeks must be continuous) of Biomedical Science Research in any year, 1 through 4, four weeks of a Biomedical Science Tutorial. or 4 weeks of teaching in medical school curriculum during 4th year). Students can only take one of these 3 courses for elective credit. Students who wish to have longer responsibilities as a Teaching Assistant in gross anatomy, for example, would have to take an independent elective under the guidance of the Director of Gross Anatomy.

Number of Participants

The elective, in this structured format, has been offered since Fall 2005. To date, 83 students have taken one of the three electives, with an average of 21 per year.

Requirements/Activities

Students spend the majority of their time committed to the specific practicum responsibilities, but together they must also attend a series of core seminars/workshops focusing on education, as well as complete various written assignments.

Practicum Responsibilities

Teaching Gross Anatomy

- Help prepare for dissection
- Attend anatomy clinical lectures, lab introductions, and exam prep sessions in the Human Structure and Function or the Brain and Mind course.
- Attend TA lectures given by Director of Gross Anatomy prior to the beginning of the prosection sessions.
- Instruct second-year Brain and Mind students or first-year Human Structure and Function students during dissection
- Help with student exam (e.g., tag structures; find best examples for test questions)
- Conduct review sessions with students

PBL Case Writing and Facilitation

- Attend an orientation to PBL facilitating and case writing
- Under the direction of a faculty member (determined by Course Director), either (1) write or revise a PBL clinical case, tutor guide, and references or (2) write a Triple Jump Exam (TJE) for potential use in the WMC curriculum
- Make a realistic work plan with appointed faculty mentor so that the case/exam can be completed within the four-week elective timeframe, if possible
- Once the appointed faculty mentor has approved the case and tutor guide/TJE, the Course Director must be given time to review for organization, flow, grammar, and usage.
- Co-facilitate a PBL Group with an experienced faculty facilitator throughout the 4 weeks.
- Substitute for a faculty PBL facilitator, as needed and as directed by course faculty

Teaching Experience in Pathology

- Under the mentorship of the Pathology Director, teach a pathology small group in the Basis of Disease Course.
- Research and present on a scientific aspect of pathology (topic and audience to be determined by Pathology Director).
- Presentation will be evaluated by Pathology and Course Directors
- A copy of the final presentation is to be turned in to Course Director.

Didactic Core Seminars and Workshops

Core Orientation; Introduction to Adult Learning and Small Group Teaching

- Brief overview requirements and schedule
- Course expectations (see Evaluation, below)
- Introduction to Basics of Adult Learning and Small Group Teaching
- PBL orientation for those enrolled in PBL Facilitating & Case Writing

Learning Climate and Communication of Goals

- Setting the appropriate tone or atmosphere of the teaching setting to make it stimulating and one in which learners can comfortably identify and address their limitations
- Establishing and explicitly expressing expectations for the learner

Evaluation and Feedback

- Definitions and examples of feedback versus evaluation and how each is an essential tool in improving learner performance

Constructing Written Test Questions

- Overview of test item formats, technical item flaws, and issues related to item content when writing exam questions for the Basic Sciences

Psychometrics

- Item analysis for multiple choice tests
- Understanding item difficulty, item discrimination, response analysis, test reliability, and standard error of measurement, with goal of improving

Written Assignments

At the end of the four weeks, students are required to submit the following to the Course Director:

- 10 exam questions (including brief explanations for why the correct option is correct, as well as why each option is incorrect). Questions are to be relevant to the content area in which students are teaching and the related lectures within the course. At least five questions should be in a clinical vignette format. These questions will subsequently be shared with the basic science course/module director, who will determine whether they will be incorporated into the course exams.
- Referring to the brief written expectations noted during the Course Orientation, students are to write an essay (2 pages) in which they reflect on the extent to which their expectations were or were not met over the past four weeks, focusing primarily on how their experience in the elective may influence them during their residency years (and academic career, if applicable). Essays should include specific examples from the elective experience as support points.

Evaluation

Student Assessment

This course is Pass/Fail. To successfully pass the course, students must

- Attend all of the required core seminars/workshops (Any missed seminars must be made up in subsequent rotations if possible; if not, a written research paper will be assigned.)
- Fulfill all teaching/practicum assignments, established by individual practicum (e.g., PBL sessions, lectures, lab sessions, review sessions).
- Complete the written assignments and course evaluations.
- Receive and review written feedback from faculty and students.

The following individuals provide quantitative and qualitative data used to assess students; each is meant as a tool to help students become better teachers:

- Practicum Director (Gross Anatomy, Pathology, and PBL case writing faculty, as well as PBL faculty co-facilitator)
- Student “learners”
- Course Director

Areas on which students are evaluated include (but not limited to) knowledge of subject; ability to utilize relevant basic science knowledge; reliability; enthusiasm; relationship with faculty/staff;

encouraging critical thinking; acceptance of criticism; attendance. These evaluations are shared with the students during the “exit interview” (see below)

Course Evaluation

The Course(s) is evaluated by the students via

- Quantitative and qualitative data about the specific course from student completion of a written course evaluation form
- Qualitative data derived from the student essay on course expectations (see above)
- Qualitative data derived from one-on-one “exit interviews” with the Course Director

One Activity: Trigger Tape used in “Teaching Small Groups”

The goal of this activity is to provide students with a better understanding and awareness of practical methods and techniques for managing small groups that they can apply flexibly to their own teaching, including establishing a comfortable learning environment, assessing group dynamics and utilizing tools to identify and address problematic behaviors, employing strategies to move a small group forward to accomplish its goals, and reflecting on their individual strengths and areas for improvement in facilitating small groups

The tape used in this seminar simulates a discussion focusing on a reading of a New York Times op-ed, “Separating Death from Agony,” in which Dr. Jerome Groopman argues a specific case in which a physician provided enough morphine to alleviate pain but hasten the patient’s death. The group is similar to that of a small group session in a “doctoring” course. The “actors,” including the facilitator, were told to assume one characteristic or another in order to convey various common issues in group dynamics and moving the group forward and some “good” and “not-so-good” facilitation strategies to address those issues.

This seminar with the Teaching Elective students begins with a short introduction in which participants share their own small group experiences as learners and/or teachers. The group first views a video. Students view the first 6 minutes of the tape and discuss how the facilitator had (and had not) established a comfortable learning climate - for example, whether she had clearly communicated her goals, set ground rules, and showed enthusiasm. Then, before viewing Part II of the tape, the students are divided into two smaller “buzz groups,” each assigned to assess what the facilitator did or did not do (1) to move the group forward - e.g., ask for clarification; use silence; encourage students to question and critique; and (2) to address problematic behavior and recognize positive group dynamics (e.g., distracted, silent, dominant, argumentative, tardy students) and how she may have done things differently. (If a specific rotation is small, the students together will remain in one group to do both parts of this exercise.) A one-page “checklist” of areas to consider for these two areas (as well as for establishing learning environment) is handed out to each group.

The two groups then view together the remainder of the video. Then each selects its own facilitator, scribe, and presenter to summarize the group's findings to the large group. After their findings are presented, each is asked to self-assess the challenges and dynamics of its own group, as well as the strategies that were (or were not) used by its facilitator.

