Bio 580, Spring 2011
Classic and Contemporary Readings in Evolutionary Biology

**Coursemaster**
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Office Hours: by appointment

**Course Meeting time:** Tuesdays, 10 am – Noon
McDonnell 312

**Readings:**

**Textbooks:**
*Conceptual Issues in Evolutionary Biology, 3rd Edition.* Elliott Sober,

**Article PDFs:** PDFs of additional readings will be available on the Bio 580 course website:

Ridley’s *Evolution* is an anthology of excerpted classic writings in Evolutionary Biology, with authors ranging from Darwin to contemporary researchers. Writings are organized into the following topics: 1) From Darwin to the Modern Synthesis, 2) Natural Selection and Random Drift, 3) Adaptation; Speciation and Biodiversity, 4) Macroevolution; Evolutionary Genomics, 5) The History of Life, 6) Case Studies, 7) Human Evolution, 8) Evolution and Human affairs.

Sober’s *Conceptual Issues* is an anthology of essays that explore a range of complementary themes in Evolution, including: Concepts of Fitness, Units of Selection, Evolutionary Psychology, “Laws” and Reductionism in Evolutionary Biology, and Cultural Evolution.

**Course Information**
Each week’s readings will focus on a particular topic and will include a combination of readings from Ridley and/or Sober, and/or related articles. For contemporary articles, emphasis will be on advances that have come about in the last decade, since the advent of genomic approaches in Evolutionary Biology.

**Course Organization**
Students enrolled in the course will be responsible for leading discussions, with 2-3 students acting as designated discussion leaders each week. Each student will be a discussion leader twice during the semester (a sign-up sheet will be available the first week). In some cases, the week’s discussion leaders may decide to divide up a week’s topic by article; in other cases, it may make more sense to divide up the topic by theme.
Guidelines for Discussion Leaders

Each seminar leader should begin their portion of the discussion with a brief presentation to the group. Be explanatory, and present the material in an orderly manner. Your presentations should emphasize interpretation of the papers over criticism. Technical material that is needed to understand the readings should be presented thoroughly. If participants get lost early in the presentation, they may be unable to follow the rest of the discussion.

While you should concentrate on the assigned readings, you may find it useful to bring background or other material into your presentation. You are welcome to do so, but you should keep the emphasis on the assigned readings. After giving your presentation, begin the discussion by raising specific points in the readings. Keep the comments of discussion participants directed towards the main issues of the seminar, and try to place comments into a useful context relative to the overall discussion.

Guidelines for Participants

Students enrolled in the course are required to read all assigned articles each week and to come to class prepared to discuss the papers. Come with a list of specific questions/comments for the discussion and plan to be an active participant each week.

Grading

Course grades will be based on your effectiveness as a discussion leader (50%) and your active, insightful contribution to discussions (50%).