Gerontology M119X (ID: 224-430-200)
Psychology M119X (ID: 328-324-200)
The Biology and Behavioral Neuroscience of Aging
Spring Quarter 2008

Instructor and Office Hours: Professor Larry L. Butcher (Department of Psychology, UCLA; 8623 Franz Hall; TR, 10:00-10:45 A or by appointment). E-mail: butcher@psych.ucla.edu

Classroom and Time: Kinsey Pavilion 1240B; TR, 11:00 A - 12:15 P

Course Description: Biologic mechanisms of the aging process and its terminal phase, death, have been increasingly studied in recent years. Although spectacular advances have been made in our knowledge of those mechanisms, myriad unanswered questions remain. Major goals of this class will be (1) to establish what we know experimentally about the biology and behavioral neuroscience of aging and (2) to evaluate the theories developed to account for what we know. We will examine age-related changes in populations and individuals, consider evolutionary and comparative aspects of aging, explore human aging and genetic determinants of longevity, study interventions known to modify the aging process, and look at aging from the perspective of both intracellular and intercellular events. We then will review, dissect, and evaluate theories and conjectures proposed to explain the biologic changes occurring in organisms at the end stages of life.

Evaluation: One midterm and one final examination will be given. Both examinations will be objective (i.e., multiple choice, true-false) and will be computer scored. Questions will be gleaned both from the book (~ 40%) and from the lectures (~ 60%). The midterm will represent 40% of the final grade (60 questions) and the final 60% (90 questions). The final will stress the second half of the class, but some questions, approximately 15%, will address the first half of the quarter as well. No make-up examinations will be given. Examinations will be given only at their scheduled times.


<table>
<thead>
<tr>
<th>MONTH/DAY</th>
<th>TOPIC</th>
<th>READINGS</th>
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<tbody>
<tr>
<td>April 1</td>
<td>Introduction</td>
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<td>April 3</td>
<td>Perspectives on aging: definitions, models, and plasticity</td>
<td>pp. 3-25</td>
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April 8       Measuring age-related changes in populations      pp. 26-53
April 10      Measuring age-related changes in individuals      pp. 54-72
April 15 and 17 NO CLASS
April 22      Biomarkers                                       pp. 72-92
April 24      Patterns of aging                                pp. 98-104, pp. 126-131
April 29      Human aging I                                   pp. 135-169
May 1         Human aging II                                   pp. 169-201
May 6         MIDTERM EXAMINATION
May 8         NO CLASS
May 13        Altering aging I                                 pp. 202-217
May 15        Altering aging II                                pp. 217-236
May 20        Genetic/social aspects of human aging           pp. 319-333
May 22        Premature aging                                 pp. 333-343
May 27        Theories of aging I                              pp. 357-362
               (see pp. 363-394 for further explanation)
May 29        Theories of Aging II                              pp. 419-448
June 3        Conclusions                                     pp. 505-525
June 5        FINAL EXAMINATION

For information about the Gerontology Minor see: www.bol.UCLA.edu/~gerontol or http://gerontol.bol.ucla.edu.