LONGEVITY

HDE 117/ENT 117
UC Davis
Fall Quarter, 2019
2205 Haring Hall
MWF 1:10p

INSTRUCTOR
Prof. James R. Carey
jrcarey@ucdavis.edu
Office hours: Mon 11a, 67 Briggs Hall

TEACHING ASSISTANTS
Eyob Solomon
esolo@ucdavis.edu
Students: A through L
Office hours: Wed 10a, 65 Briggs Hall

Robert Stolz
rstolz@ucdavis.edu
Students: M through Z
Office hours: TBA
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<td>7</td>
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<td>Human II</td>
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<td>9</td>
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<td>10 a</td>
<td>End-of-Life</td>
</tr>
<tr>
<td>11 c,d</td>
<td>Aging world</td>
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* Holidays: Nov. 11, 28-29; b Midterm exam, Monday, October 28; c Term paper due, Sunday, December 10 (midnight); d Final exam, Monday, December 9 (8-10a)
**COURSE DETAILS**

**Grading and weightings**

<table>
<thead>
<tr>
<th>Component</th>
<th>Weightage</th>
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<tbody>
<tr>
<td>Exams</td>
<td>55%</td>
</tr>
<tr>
<td>Midterm</td>
<td>25%</td>
</tr>
<tr>
<td>Final</td>
<td>30%</td>
</tr>
<tr>
<td>Homework</td>
<td>20%</td>
</tr>
<tr>
<td>Term paper</td>
<td>25%</td>
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</tbody>
</table>

100%

**Homework**

Weekly homework will involve writing short (25-35 word) essays on selected topics. Homework assignments will be graded on a 10-point scale and will be due Sundays at midnight.

**Term paper**

1. **Purpose.** The purpose of the term paper is three-fold: i) to expand your knowledge about longevity in general and human (or animal) lifespan in particular; ii) to learn to use the library for research; and iii) to improve your writing and editing skills.

2. **Subject.** The subject for your term paper this quarter should be related to longevity and/or health. For ideas, see topics listed for Term Paper Ideas at the end of this syllabus. Use any of these topics or chose a topic of your own.

3. **Procedures.** Select a subject and write a paper in which you: i) find and review the available literature dealing with the specific subject you chose to write about; and ii) write a paper in which you describe the significance of the subject, apply appropriate techniques and concepts learned in the course and discuss the broader implications and limitations of your particular perspective or approach.

4. **Specific Requirements.** The length should be 2,500 words. The format and organization should be patterned after the Model Term Paper “Lifespan” posted in writing videos: i) cover page; ii) main text with numbered headings and subheadings; iii) references in style and format described on p7; and iv) at least 10 references, 7 of which must be from the primary (journal) literature.

5. **Grading.** Your term paper grade will be based on: i) your organization and coverage of the topic; ii) reference base as source of information and authority; iii) your apparent understanding of the material about which you write; iv) clarity and precision of your statements; v) grammar and style; and vi) technical aspects such as spelling and punctuation. Style sheet usage required (see video).
COURSE REFERENCE MATERIAL

Readings

Videos
2. Bill Maher Real Time--Agism (click here).
3. Austad, S. Gerontological Society of America keynote address (click here).
8. Still Alice movie trailer (click here).
11. Assisted suicide debate, NPR podcast (click here).
12. George Burns—Sings “I wish I was 18 again” (click here).
WRITING VIDEO PLAYLIST

Table 1. Playlist of 13 mini-lectures “How to write a research term paper”. Total time for all video clips is 43 minutes and 35 seconds (Produced by James Carey, Sarah Perrault, and Shruti Dave, 2011).

<table>
<thead>
<tr>
<th>Video</th>
<th>Title</th>
<th>Time</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>2:27</td>
<td>Purpose for and overview of playlist</td>
</tr>
<tr>
<td></td>
<td>Part I: Preparation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Word processing</td>
<td>4:09</td>
<td>Best practices and tips in word processing</td>
</tr>
<tr>
<td>3</td>
<td>Ethical writing</td>
<td>1:53</td>
<td>Plagiarism and related concepts</td>
</tr>
<tr>
<td>4</td>
<td>Citations</td>
<td>2:30</td>
<td>How to cite references in text and in bibliography</td>
</tr>
<tr>
<td>5</td>
<td>Picking a topic</td>
<td>2:41</td>
<td>How to narrow down term paper topic</td>
</tr>
<tr>
<td>6</td>
<td>Types of sources</td>
<td>4:08</td>
<td>Overview of primary and other sources</td>
</tr>
<tr>
<td>7</td>
<td>Researching</td>
<td>5:37</td>
<td>How to search for relevant literature</td>
</tr>
<tr>
<td>8</td>
<td>Plan of attack</td>
<td>4:19</td>
<td>Get organized and plan</td>
</tr>
<tr>
<td></td>
<td>Part II: Writing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Stage I: Launching</td>
<td>1:30</td>
<td>Skeleton stage of paper writing</td>
</tr>
<tr>
<td>10</td>
<td>Stage II: Thoughts on paper</td>
<td>3:50</td>
<td>Getting ideas and concepts written</td>
</tr>
<tr>
<td>11</td>
<td>Stage III: Growth and development</td>
<td>3:44</td>
<td>Starting to construct paper</td>
</tr>
<tr>
<td>12</td>
<td>Stage IV: Complete working draft</td>
<td>3:04</td>
<td>Approaching next-to-final version</td>
</tr>
<tr>
<td>13</td>
<td>Stage V: Finalizing</td>
<td>3:29</td>
<td>Making perfect technically and full of content</td>
</tr>
<tr>
<td>14</td>
<td>Finished term paper (pdf)</td>
<td></td>
<td>Model term paper</td>
</tr>
</tbody>
</table>

GUIDELINES FOR TERM PAPER REFERENCE FORMATTING

**Journal article**


**Book (or Encyclopedia) section**


**Book**


Edited book


Newspaper article


Website


Grey literature
Grey literature citations are a challenge because the documents are usually not part of a series (i.e. with volume, issue, edition), do not specify an author, publisher, or city, and contain informal and/or piecemeal information on their provenance. None-the-less, they are frequently a source of important information. The first rule of thumb in citing this literature is to present information systematically and ensure that it is complete so that Readers can access the source including the URL. Check with the Help Desk at Storer Library for guidance.


Lecture notes

Video
### Set 1.0: Course introduction, details and requirements

#### Analytical

1.1 Background; science; probability

1.2 Lexis diagrams; development stages

1.3 Life tables; cohort and period

1.4 Comparative life tables

1.5 Cause of death

1.6 Heterogeneity; Gompertz mortality model

1.7 Selected topics; sex mortality

#### Biological

2.1 Biodemography; model animals

2.2 Lifespans and lifespan evolution

2.3 Human lifespan

2.4 Elderly in nature; mouse studies; cost of reproduction

2.5 Experimental biodemography

2.6 Gerontology; theories of aging

#### Human

3.1 Genetics of aging

3.2 Genealogy and kinship

3.3 Family demography

3.4 Population aging

3.5 Morbidity; ADL’s

3.6 Successful aging

3.7 End of life; euthanasia

3.8 Future worlds

3.9 Course completion

3.10 Selected demographic shorts
FREQUENTLY ASKED QUESTIONS

General

1. Is there a text for this course?
   No. There are weekly assigned readings and video viewings.

2. How is this course organized?
   Roughly a quarter of the class is devoted each to analytical (e.g. life tables) and biological (e.g. aging in model organisms) and the remaining half to the biology and demography of aging and longevity in humans.

3. Why must we learn basic life tables?
   Because it will give you a depth of understanding of actuarial concepts that would be impossible without exposure to this and related analytical concepts. These are relatively easy mathematical manipulations as you will see.

4. Why do you cover aging and longevity in non-human species?
   Just as rules of inheritance apply to virtually all organisms across the tree of life, many rules of aging and longevity also apply to most organisms including humans. We can learn a great deal about human aging through experimentation with non-human species that we cannot learn from humans because of experimental (ethical) constraints (among many reasons as you will learn).

5. How can I do well (i.e. get an A) in this class?
   No secrets here. Show up to class, pay attention, do the readings, attend office hours and ask questions when you are confused. We are here to help you succeed. There are also great resources here on campus including the learning skills center that offers writing workshops. And you may want to form and/or join a study group.

6. When is the weekly ‘hard’ deadline for homework?
   Sunday midnight (actually 11:59p) is the deadline for homework. A good strategy is to impose your own deadlines so that you never miss the midnight deadline and thus receive a zero for that component.

7. How do you grade and what is your typical grade distribution?
   I grade on the curve with slightly less than a third of students receiving A’s, B’s and (slightly fewer) C’s with residual D’s for those who made little effort and F’s for students who failed to turn in major assignments like term paper or don’t take the exams.

Lecture

8. Will lecture notes/slides be posted prior to class?
   Yes, I will try my best to get them posted early. However, I often edit them right up to the end.

9. Is attendance required?
   No but it is strongly encouraged. Any content presented in class including information that emerges in Q & A or ad hoc comments is fair game for exams.

10. How can I minimize disruption if I need to leave lecture early?
    Sit near the rear and discretely leave. It is rude to instructor and fellow students alike when a person leaves in the middle of lecture, especially picking up backpack and leaving from the middle of the lecture hall.
11. May I talk to my neighbor in class?
   Please do not since it is disconcerting to me lecturing and students near you (just like in a movie theater). If you need to communicate, write on note pad like they do in court where everyone must remain quiet.

   **Exams**

12. What material will we be responsible for knowing for the exams?
   You will be responsible for virtually everything that is presented in class via slides and comments. I will try to let you know if the fine details unimportant for the examinations but are used to illustrate a larger concept. For readings and video viewings I will provide study guidelines and/or announce in class what main take-away information you should focus on while reading or viewing.

13. What will the exams be like?
   Likely all multiple choice (Scantron-based)

   **Term paper**

14. Can I change topics any time?
   Yes. Often students find that they are not interested in the original topic they chose or the literature is not extensive enough to provide the types or depth of sources needed for a good term paper.

15. Does my topic have to be approved?
   No. However, it is always useful to solicit feedback from the instructor or your TA.

16. What is the writing video playlist that you describe in the syllabus?
   The overarching objective of this playlist that I co-produced with Dr. Sarah Perrault in the University Writing Program was to describe best practices for technical and logistical aspects of writing a term paper (Part I) and re-construct a model term paper from skeleton to final stages (Part II). You will learn a lot from these videos (links posted in Canvas) with some content showing up on quizzes.

17. Why do we have to use style sheets in WORD for our term paper?
   Style sheets are extraordinarily useful tools for writing. They will help make your term paper technically perfect, aesthetically pleasing, and typographically accurate, and . You will come to appreciate learning to use style sheets in all of your writing assignments at UC Davis and beyond.

18. What citation style should we use?
   Use the citation and bibliographic styles that I adopted from one of the scientific journals (see Term Paper Formatting Guidelines). This course-specific requirements is equivalent to a journal’s “guidelines for authors” specifying its formatting criteria for different types of sources (e.g. journal article; book; edited book; etc).

19. Should I pay for access to journal articles online when off campus?
   Absolutely NOT! The UCD library pays (using some of your tuition dollars) hundreds of thousands of dollars for subscriptions to journals. When you hit the firewall for a journal off campus means that you have not gone through the UCD library. Thus use your VPN to gain access to the library website through which you can access the journal material. Or access when on campus.

20. Is the 2,500 word requirement a hard number?
   No, but you need to be in the ball park (e.g. around 2,350 minimum). In principle there is no maximum per se, but anything over 3,000 words is excessive and I recommend against that length.
21. What part(s) of the term paper do I use for this word count?
   You can use the summary and main body of the term paper. The bibliography does not count.

22. Do you accept late papers?
   Yes. However, you need to let your TA know that you will not make the deadline. You will lose a half grade (e.g., B+ to B) or a full grade (A to B) depending on the lateness.

RESEARCH TERM PAPER STYLE SHEETS AND TYPOGRAPHY

WORD SET UP

Word Processing

- Show non-printing characters
- Turn on hyphenation (Layout/Page Setup/Hyphenation—automatic)

Typography

- Font: Californian FB
- Point Size: 11 pt

Margins/page numbers

- Top-bottom - 1 inch
- left-right - 1 1/2 inches
- Different first page
- Page numbers right justified
- Numbers on ≥ p2

Table of Contents

- Reference/Table of Contents
- TOC Format: Formal
- Show page number; right align
- Select TOC text and change to Time Roman font

Cover Sheet

- Title: 18 point bold
- Name/ID: 14 point

HEADINGS

Level 1 (Code = Heading 1)

- Alignment: left
- Indent: None
- Case: Upper case (small caps)
- Bold
- Exact spacing 15 pts
- 6 pts after

Level 2 (Code = Heading 2)

- Same as Heading 1 except:
- Indent: 1/2 inch
- Case: Title case
TEXT

Body text (Code = Body text)

- Alignment: justified
- Indent: ½ inch
- Exact spacing 15 pts
- 6 pts after

Hanging (Code = Hanging)

(use Hanging for table legends, figure legends and references)

- Alignment: justified
- ½ in inch hanging paragraph
- Exact spacing 15 pts
- 6 pts after
TERM PAPER IDEAS

This list provides ‘seed’ themes for term papers, many of which are followed by a paper from the primary literature on the topic. The advantages of drawing from one of the topics listed below, particularly the ones with references, are two-fold—each is bounded and relatively specific (i.e. many students pick sweeping topics that overwhelm them and each topic has a deep literature (i.e. many students pick topics that they struggle to find good primary references for). However, any topic related to aging, survival, healthspan or longevity can be a term paper theme.


20. The biology and ecology of the longest lived rodent: the naked mole rat.


22. The longevity of the British peerage


32. Does childhood health affect chronic disease incidence in adulthood?


40. Human longevity and parental age at conception.


55. Eat, Drink and Be Healthy (Willett WC. 2001 Eat, Drink, and Be Healthy: The Harvard Medical School Guide to Healthy Eating. New York, Free Press)


61. Point-counterpoint: would doubling the human life span be a net positive or negative for us either as individuals or as a society? 2004. Journal of Gerontology: Biological Sciences, 59A, 554-559.


63. What is a healthy body mass index for women in their seventies? Results from the Australian longitudinal study on women’s health. 2010. Journal of Gerontology: Medical Sciences, 65, 847-853.


67. What is a healthy body mass index for women in their seventies? Results from the Australian longitudinal study on women’s health. 2010. *Journal of Gerontology: Medical Sciences*, 65, 847-853.


