EPID/CPH 309: Introduction to Epidemiology
Fall 2017

TIME: 4:00-5:15 pm
DAYS: Monday & Wednesday
LOCATION: CESL, 103
FACULTY: Robin Harris, Ph.D., M.P.H.
Office: Drachman, A-234
Telephone: 626-5357
E-mail: rbharris@email.arizona.edu
Office hours: By appointment

Teaching Assistants & Preceptors

<table>
<thead>
<tr>
<th>Group</th>
<th>Teaching Assistants &amp; email addresses</th>
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<tbody>
<tr>
<td>A</td>
<td>Ashleigh Madden <a href="mailto:ashleighmadden@email.arizona.edu">ashleighmadden@email.arizona.edu</a></td>
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<tr>
<td>B</td>
<td>Xian Tan <a href="mailto:xtang21@email.arizona.edu">xtang21@email.arizona.edu</a></td>
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<tr>
<td>C</td>
<td>Mario Trejo <a href="mailto:mtrejo@email.arizona.edu">mtrejo@email.arizona.edu</a></td>
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<tr>
<td>D</td>
<td>Lily Weinberg <a href="mailto:lweinberg@email.arizona.edu">lweinberg@email.arizona.edu</a></td>
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<td>E</td>
<td>Abraham Ocejo-Garcia <a href="mailto:aocejo@u.arizona.edu">aocejo@u.arizona.edu</a></td>
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<tr>
<td>F</td>
<td>Benjamin Pope <a href="mailto:bpope@email.arizona.edu">bpope@email.arizona.edu</a></td>
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COURSE DESCRIPTION
This course will introduce students to basic principles and methods used in epidemiology. The course will include basic research designs, estimating outcome measures, and establishing cause and effect and effectiveness of interventions to prevent and cure disease.

COURSE PREREQUISITESTS: Math 112 or equivalent

COURSE LEARNING OBJECTIVES
Upon completion of the course, students should be able to:
1) Describe the historical roots of epidemiologic thinking and their contribution to the evolution of the scientific method.
2) Explain how ethical principles affect epidemiologic research.
3) Calculate rates and proportions to express numerically the amount and distribution of health and non-health related outcomes
4) Use the distribution of a health-related outcome to generate hypotheses that might provide an explanation.
5) Explain basic statistical and epidemiologic concepts of estimation, inference, and adjustment to establish association.
6) Explain how to use evidence of an association to make a judgment about whether an association is causal.
7) Describe the basic epidemiologic study designs that are used to test hypotheses, identify associations, and establish causation.
8) Describe the concepts of measurement of test performance and be able to apply the concepts of testing and screening in different settings.
9) Describe the broad applicability of epidemiologic methods to clinical and basic science as well as public policy.

UNDERGRADUATE COMPETENCIES
1) Use epidemiological principles to describe and analyze causes of disease and illness.
2) Provide a biological description for the major causes of communicable and non-communicable diseases and their pathology.
3) Provide an environmental description for the major causes of communicable and non-communicable diseases and their pathology.

COURSE FORMAT
The class will be organized with classroom lectures and discussion forums. Learner-centered methods will include individual and small group work and discussion, guest lectures, and student presentations.

RECOMMENDED BOOKS AND READINGS

Note: The 1st edition of this book is available as an ebook; licensed as a single user ebook (one user at a time): http://sabio.library.arizona.edu/record=b6997192~S9. Either edition should be fine. as I would cover

Course syllabus, schedule, homework, additional readings, and class notes will be made available online: http://d2l.arizona.edu. Students use Student Link to access the D2L site.

COURSE REQUIREMENTS
Each student will be assigned to a Group and will submit homework, class projects and discussion questions to their appropriate group via the D2L site or to the appropriate TA. Group assignments are available through the D2L website.

The student is responsible for meeting all course deadlines. If the student knows in advance that s/he will be away, then it is the student’s responsibility to make appropriate arrangements for submission of homework and discussion questions on time.

Class Attendance and Participation
Class attendance is strongly encouraged. Participation will be assessed through completion and submission of an in-class activities/evaluation forms at the end of each class session.

Participation is an important component of this class. Feel free to ask questions, and contribute your own ideas and knowledge to the class. It is important to read the material in advance and give it some careful thought, so that you come to class prepared to discuss information and opinions. Engaging and instructive class discussion can come from this if we are both prepared beforehand and mutually respectful during our interactions with each other. **Talking, using electronic devices such as cell phones and any other unruly behavior that disrupts the class will not be tolerated. The instructor reserves the right (and obligation to the class) to administratively drop from the course any student who does not maintain appropriate behavior. Turn off your cell phones.**

Note: We use the voting card. Bring it to every class. If you lose your card, print a new one – in color-from the one on D2L under ‘Course Materials’.
Homework
Throughout the semester, regular homework assignments have been set. The purpose of these homeworks/activities is to provide opportunities for students to practice the tools of epidemiologists and to assure that they are practicing correctly.

Homework assignments will be distributed at least one week prior to the due date or will be available online. Homework assignments are due before or at the time of the assigned class period. They may be submitted online or at the class period.

Unless otherwise noted, homework assignments will be graded as 3=assignment is complete, 'considered' & submitted on time; 2 credit = homework is incomplete/not 'considered' but submitted on time; 1= homework is complete, but submitted after the due date, 0= not completed.

Projects
There are two projects to be completed during the semester: 1) a data hunt and 2) an epidemiologic analysis project. Specific instructions for the format and grading criteria of these projects will be provided on the D2L website. Due dates for the projects are listed on the course schedule.

Examinations
In general, the examinations will be closed book, in-class exams unless otherwise specified. Students will be allowed to bring in 1 page of notes and calculators to an in-class exam. The final will potentially be an online exam.

Extra Credit
An extra credit project is available. The assignment is potentially worth 2 additional points to the overall course points. Instructions are/will be available on the course website. This assignment can be completed at any time, but must be submitted by Wednesday, December 4th.

STUDENT EVALUATION
Evaluation will be based upon the student's ability to demonstrate a basic understanding of the concepts, principles, and methods of epidemiology through:

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<tr>
<th>GRADING SCHEME</th>
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<tr>
<td>Homework</td>
<td>15%</td>
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<td>Class Participation</td>
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<td>Project 1: Analysis of epidemiologic data</td>
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<td>a. Completion of survey entry &amp; questionnaire review</td>
<td>-5%</td>
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<tr>
<td>b. Statement of problem with review</td>
<td>-5%</td>
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<tr>
<td>c. Analysis of data – report of findings</td>
<td>-15%</td>
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<tr>
<td>Project 2: Data Hunt</td>
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<tr>
<td>Exam #1</td>
<td>20%</td>
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<td>Exam #2 -Final Exam</td>
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<td>Total</td>
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The final grades are based on the following point system, although the instructor reserves the right to revise this scale if necessary.

- A: 91-100%
- B: 81-90%
- C: 71-80%
- D: 61-70%
- E: < 60%

**PUBLIC HEALTH COMPETENCIES ADDRESSED:**
1. Describe the historical development of public health systems and their role in society.
2. Use of biostatistical approaches and other modern methodological frameworks to design and test hypotheses.
3. Appropriately incorporate determinants of health (environmental, social, cultural, behavioral and biological) when studying the causation of disease and access to health services.
4. Provide a biological description for the major causes of communicable and non-communicable diseases and their pathology.
5. Provide an environmental description for the major causes of communicable and non-communicable diseases and their pathology.

**OTHER INFORMATION**

**Communications:** You are responsible for reading emails sent to your D2L or UA account from your professor and the announcements that are placed on the course web site. Information about readings, news events, your grades, assignments and other course related topics will be communicated to you with these electronic methods. The official policy can be found at: [http://www.registrar.arizona.edu/emailpolicy.htm](http://www.registrar.arizona.edu/emailpolicy.htm)

**Email Etiquette:** Please be professional with respect to emails you send. Email is not texting. Email is a letter. It begins with a greeting and ends with a closing. Please use proper punctuation and remember to use spell check. Please include sufficient information in the email that I can respond appropriately (e.g., “I don’t understand number 3” is not helpful to either of us). I respond to email as quickly as I can. If your email query is covered in the syllabus, you will receive an email stating “Please see syllabus.” If your email is not professional, it will be returned for you to revise. If you do not receive a reply to an email, check D2L - especially when your email is likely relevant to the whole class. This may be helpful: [http://www.101emailetiquettetips.com/](http://www.101emailetiquettetips.com/)

**Disability Accommodation:** If you anticipate issues related to the format or requirements of this course, please meet with me. I would like us to discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, it is very important that you be registered with Disability Resources (621-3268; drc.arizona.edu) and that you notify me of your eligibility for reasonable accommodations. We can then plan how best to coordinate your accommodations. The official policy can be found at: [http://catalog.arizona.edu/2015%2D16/policies/disability.htm](http://catalog.arizona.edu/2015%2D16/policies/disability.htm)

**Academic Integrity:** All UA students are responsible for upholding the University of Arizona Code of Academic Integrity, available through the office of the Dean of Students and online: The official policy found at: [http://deanofstudents.arizona.edu/codeofacademicintegrity](http://deanofstudents.arizona.edu/codeofacademicintegrity)

**Plagiarism:** What counts as plagiarism?
- Copying and pasting information from a web site or another source, and then revising it so that it sounds like your original idea.
- Doing an assignment/essay/take home test with a friend and then handing in separate assignments that contain the same ideas, language, phrases, etc.
• Quoting a passage without quotation marks or citations, so that it looks like your own.
• Paraphrasing a passage without citing it, so that it looks like your own.
• Hiring another person to do your work for you, or purchasing a paper through any of the on- or off-line sources.

**Classroom Behavior:** The Dean of Students has set up expected standards for student behaviors and has defined and identified what is disruptive and threatening behavior. This information is available at: [http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students](http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students)

Students are expected to be familiar with the UA Policy on Disruptive and Threatening Student Behavior in an Instructional Setting found at: [http://policy.arizona.edu/education-and-student-affairs/disruptive-behavior-instructional-setting](http://policy.arizona.edu/education-and-student-affairs/disruptive-behavior-instructional-setting) and the Policy on Threatening Behavior by Students found at: [http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students](http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students)

**Nondiscrimination and Anti-harassment Policy:**
The University of Arizona is committed to creating and maintaining an environment free of discrimination, [http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy](http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy)

**Inclusive Excellence** is a fundamental part of the University of Arizona’s strategic plan and culture. As part of this initiative, the institution embraces and practices diversity and inclusiveness. These values are expected, respected and welcomed in this course.

**Grievance Policy:** Should a student feel he or she has been treated unfairly, there are a number of resources available. With few exceptions, students should first attempt to resolve difficulties informally by bringing those concerns directly to the person responsible for the action, or with the student's graduate advisor, Assistant Dean for Student and Alumni Affairs, department head, or the immediate supervisor of the person responsible for the action. If the problem cannot be resolved informally, the student may file a formal grievance using the Graduate College Grievance Policy found at: [http://grad.arizona.edu/academics/policies/academic-policies/grievance-policy](http://grad.arizona.edu/academics/policies/academic-policies/grievance-policy)

**Grade Appeal Policy:** [http://catalog.arizona.edu/2015-16/policies/gradappeal.htm](http://catalog.arizona.edu/2015-16/policies/gradappeal.htm)

**UA Smoking and Tobacco Policy:** The purpose of this Policy is to establish the University of Arizona’s (University) commitment to protect the health of University faculty, staff, students, and visitors on its campuses and in its vehicles. The latest version of the policy is available at: [http://policy.arizona.edu/ethics-and-conduct/smoking-and-tobacco-policy](http://policy.arizona.edu/ethics-and-conduct/smoking-and-tobacco-policy)

**Syllabus Changes:** Information contained in the course syllabus, other than the grade and absence policies, may be subject to change with reasonable advance notice, as deemed appropriate.

**Please Note:** URLs change frequently. You will need to test the URLs in the syllabus you produce each semester, to ensure the links are correct.