Time: On-line course

Location: On-line course

Instructor and contact information
J. Eduardo Gonzalez-Fagoaga, PhD, MS
Division of Public Health Practice and Translational Research
Mel & Enid Zuckerman College of Public Health, Phoenix
The University of Arizona
gonzalezfagoaga@email.arizona.edu

Instructor Availability: In a regular classroom setting, faculty are usually available to meet with you briefly before or after class or during scheduled office hours or if you make an appointment. In this setting, course instructor(s) are usually not available to answer your questions at midnight or on weekends. Sometimes it may take up to 48 hours for the course instructor(s) to respond to your questions. Course instructor(s) are not online 24 hours a day, 7 days a week. However, the technical help desk is available 24/7/365 for any difficulties you are having accessing or submitting course content. You may locate information about how to contact your course instructor, student support coach, or Tech Support. When contacting faculty, expect a reasonable response time for your questions. Do not wait until the last minute to ask an important question – plan ahead! Please write email in complete sentences. Your emails are considered professional communication – remember, you are not internet messaging (IM-ing) to a friend. If you would like to make an appointment to meet individually in person, contact the instructor(s) for an appointment.

Teaching Assistant: Not available

TA Office Hours: Not available

Catalog Description: This course will provide students the skills to apply Demographic Analysis techniques. Students will gain an understanding of main measures and techniques used in studying population dynamic and change. At the end of this course, students will be able to: a)
identify and use the sources of data available for demographic research; b) analyze the population composition and change measures; c) apply measures of mortality, fertility, and migration levels and patterns; d) apply life table; e) identify the components of population projections.

**Course Prerequisites:** BIOS 576A Biostatistics

**Course Objectives:** During this course students will

1. Learn how to apply Demographic methods to the scope of settings and situations related to populations dynamics.
2. Identify and select quantitative data collection methods appropriate for a given population.
3. Learn how to analyze quantitative data using Demographic methods, supported on informatics, computer-based programming and software, as appropriate.
4. Learn to interpret results of population data analysis for related public health research, policy or practice.
5. Learn how to elaborate and apply population estimations to identify future population health needs

**Learning Outcomes**

Upon completion of this course students will be able to:

1. Analyze the Demographic characteristics of populations, focusing on the topics related to the Health of the populations.
2. Elaborate basic demographic analyses using various techniques, ensuring their comparability across populations, throughout the use of appropriate sources of data for Demographic analysis of a population.
3. Elaborate population estimations, and interpret the information gathered by the different demographic methods.

**MPH/Program Competencies Covered**

This course covers the following MEZCOPH MPH program competencies:

<table>
<thead>
<tr>
<th>MPH Foundational Competency</th>
<th>Where learned</th>
<th>Where assessed</th>
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</thead>
<tbody>
<tr>
<td>Select quantitative and qualitative data collection methods appropriate for a given public health context</td>
<td>Lesson 2</td>
<td>Assignment Lesson 2</td>
</tr>
<tr>
<td>Interpret results of data analysis for public health research, policy or practice</td>
<td>Lessons 4, 5, 8, 9, 10, 11, 12, 13, 14, 15</td>
<td>Assignments Lessons 4, 5, 8, 9, 10, 11, 12, 13, 14, 15</td>
</tr>
<tr>
<td>MPH Foundational Competency</td>
<td>Where learned</td>
<td>Where assessed</td>
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<tr>
<td>--------------------------------------------------------------------------------------------</td>
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<td>-------------------------------------</td>
</tr>
<tr>
<td>Evaluate policies for their impact on public health and health equity</td>
<td>Lesson 4, 5, 8, 9, 10, 11, 12, 13, 14, 15</td>
<td>Assignments Lessons 4, 5, 8, 9, 10, 11, 12, 13, 14, 15</td>
</tr>
<tr>
<td>Apply systems thinking tools to a public health issue</td>
<td>Lessons 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15</td>
<td>Assignments Lessons 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15</td>
</tr>
<tr>
<td>Assess population needs, assets and capacities that affect communities’ health</td>
<td>Lessons 4, 5, 8, 9, 10, 11, 12, 13, 14, 15</td>
<td>Assignments Lessons 4, 5, 8, 9, 10, 11, 12, 13, 14, 15 &amp; Final evaluation</td>
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**Concentration Competencies Covered**

<table>
<thead>
<tr>
<th>Public Health Practice Competency</th>
<th>Where learned</th>
<th>Where assessed</th>
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<tbody>
<tr>
<td>Identify appropriate strategies to promote positive health behavior changes in various populations; and analyze and discourse on public health issues.</td>
<td>Lessons 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15</td>
<td>Assignments Lessons 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15</td>
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**Course Notes:** All course notes will be published on-line, on a weekly basis prior to every course session.

**Required Texts**


Required Materials: This is an on-line course; internet connection and computer will be required.

Course requirements:

Online classes require students to set aside time each week to complete coursework. Weekly readings and assignments will require students to stay current and work to complete exercises. Students are expected to be prepared each week – i.e., having read all assigned materials and having completed any “homework” assignments. Assigned readings are available in the course in each lesson’s Learning Resources page.

Final evaluation: For PHP 5xx, every student should present a report based on at least two Demographic characteristics for a defined population.

Course evaluation and Grading

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Assignment Description</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Weekly Assignments</td>
<td>Assignments for each session to be completed</td>
<td>40%</td>
</tr>
<tr>
<td>Final Evaluation</td>
<td>Final report, which should include at least two demographic characteristics and a related public health issue for a selected population</td>
<td>60%</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>100</strong></td>
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</table>

A, B, C, D, and E grading system will be used in this course, where A is Excellent (95%-100%), B is good (80%-94%), C is satisfactory (70%-79%), D is poor (60%-69%) and E is failure (less than 60%).

Students will be required to demonstrate an enhanced capacity for analysis through their final report, and weekly assignments. Greater grading emphasis is placed on higher levels of learning and presentations including making key comparisons, projects and linking information to policy and program planning and evaluation as determined in the grading rubrics for weekly assignments and the course’s final report.

Academic Policies

Absence and Class Attendance/Participation: (Expected attendance, participation levels)
The UA’s policy concerning class attendance, participation, and administrative drops is available at: [http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop](http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop)

The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable, [http://policy.arizona.edu/human-resources/religious-accommodation-policy](http://policy.arizona.edu/human-resources/religious-accommodation-policy).

Absences pre-approved by the UA Dean of Students (or Dean Designee) will be honored. [http://deanofstudents.arizona.edu/](http://deanofstudents.arizona.edu/)

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### Course schedule

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Week</th>
<th>Reading materials</th>
<th>Assignments</th>
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</thead>
<tbody>
<tr>
<td><strong>2</strong> Data sources for Demographic Analysis</td>
<td></td>
<td>Chapters 2, 3 &amp; 4, Siegel, J. S., &amp; Swanson, D. (2007). <em>The methods and materials of demography</em>. Second Edition. Elsevier Academic Press. United States of America</td>
<td>Infographic of data sources for Demographic Analysis • Identify the different sources of data • Describe the advantages and</td>
</tr>
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• Identify fundamental rates in demography: crude and specific rates  
• Define crude birth rate, crude death rate, and rate of natural increase |
• Define cohort, tempo and intensity in Demography  
• Define renewable and no-renewable events  
• Define attrition in Demography  
• Define synthetic cohort measures |
• Define and distinguish between direct |
| --- | --- | --- | --- | --- |
|  |  |  |  | • Estimate rates of change in populations  
• Calculate doubling time  
• Understand the relationship between age distribution and demographic rates and understand the book-keeping equation |
|  |  |  |  | • Distinguish the different definitional matters  
• Define and calculate basic and specific mortality indicators |
• Contrast different life tables |
|-----|------------|------------------------------------------------------------------------------------------------|-----------|-----------------------------|
• Define and calculate indicators of divorce |
• Define and calculate measures of reproductivity based on vital statistics  
• Define and calculate measures of fertility based on censuses and surveys  
• Recognize the relationship among some fertility indicators  
• Define and calculate indicators and models to measure birth intervals  
• Be knowledgeable |
One-page paper describing domestic and International Migration for a selected population | • Define Migration and its Different Forms  
• Estimate Net Migration Using Different Assumptions  
• Define and calculate different indicators  
• Examine different ways of studying migration |
| 16  | Final report | | | |

**Communications:** You are responsible for reading emails sent to your UA account from your instructor 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: [https://www.registrar.arizona.edu/personal-information/official-student-email-policy-use-email-official-correspondence-students](https://www.registrar.arizona.edu/personal-information/official-student-email-policy-use-email-official-correspondence-students)

**Accessibility and Accommodations:**  
At the University of Arizona, we strive to make learning experiences as accessible as possible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, you are welcome to let me know so that we can discuss options. You are also encouraged to contact Disability Resources (520-621-3268) to explore reasonable accommodation. If our class meets at a campus location: Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable. For
additional information on Disability Resources and reasonable accommodations, please visit http://drc.arizona.edu/students

Code of Academic Integrity
Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercise must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity, available through the office of the UA Dean Students: http://deanofstudents.arizona.edu/policies-and-codes/code-academic-integrity

Classroom Behavior: (Statement of expected behavior and respectful exchange of ideas:
Present policies to foster a positive learning environment, including use of cell phones, mobile devices, etc.). Students are expected to be familiar with the UA Policy on Disruptive Student Behavior in an Instructional Setting found at: http://policy.arizona.edu/education-and-student-affairs/disruptive-behavior-instructional-setting

Threatening Behavior Policy: The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to one’s self, 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

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, 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 by the instructor.

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.