

## **GGS 304 Population Geography**

*Spring 2022*

*Online live sessions: Fridays 10:30 –11:45 am*

Instructor: David Wong, Professor

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**Virtual Office Hours:** R 3-4 pm, or by appointment

**Virtual Office:** <https://gmu.zoom.us/j/4701770761>

**Blackboard (Bb):** <https://mymasonportal.gmu.edu/>

### **Course Description:**

All issues and problems on the Earth, environmental and societal, are directly or indirectly related to human population. In fact, changes in population size and human behavior are major drivers of physical, environment and societal changes. In reverse, environmental and societal conditions affect population dynamics – aspatial and spatial. A thorough understanding of population characteristics and dynamics serves as the foundation of analyzing not only population issues, but almost all societal problems, including global change issues. Besides reviewing basic demographic concepts, this course also enumerates the spatial dimensions of population and its relationships to natural resources, environment and various societal aspects.

**GGS 304**, meeting the **Mason Core's synthesis requirements**, draws on knowledge from several core areas: **social science** (involving economics, geography, and demography); **natural science** (relations to the natural environment); **global understanding** (providing a background of the world's condition). The course also involves **quantitative reasoning**, and the use of Geographic Information System (GIS), an **Information Technology** tool.

**Prerequisites:** 30 hours, completion of, or concurrent enrollment in, all university general education courses, or permission of instructor.

### **What to Expect?**

**Contents:** Students will learn concepts, models and theories related to demographic characteristics, population growth, spatial dynamics and distributions. Students will also learn about various demographic measures and methods to analyze population issues. Students will learn using maps as analytical tools. Some of these tools and methods will be implemented in software programs, including spreadsheets and GIS/mapping packages. Students will acquire skills to use relevant tools to analyze population and societal issues with appropriate data.

#### **Format/Logistics:**

- The course is an online course with learning activities scheduled for each week.
- Most of the learning activities (90% or more) are conducted in your own time
- The course requires an online synchronous session once a week (Fridays, 10:30 – 11:45 am).
- Detailed schedule for specific learning activities are posted on Blackboard (Bb).
- Lecture notes and videos are posted on Bb. Students should review them according to the class schedule.
- The weekly synchronous session (Fridays, 10:30 – 11:45am) will use **Blackboard Collaborate Ultra**. The live sessions will:
  - o address logistical and course-content questions;
  - o review, comment, clarify lecture material;
  - o summarize or comment the discussions on Bb Discussion Board.

Attending these live sessions are not required, but are strongly encouraged. Tips of exams will be offered.

### Technology Expectations:

General: In the event that Bb Collaborate Ultra is inaccessible for the weekly online synchronous session (Fridays, 11 – 11:45 am), we will switch to Zoom (the link below) with the pass code “population”.

(<https://gmu.zoom.us/j/94299386110?pwd=Wk9KL1lZQ2o2WmJNRjlmaFJ6QWp0QT09>)

In addition to the requirements above, students are required to have a device with a functional camera and microphone. In an emergency, students can connect through a telephone call, but video connection is the expected norm. More specific technology requirements are on Bb.

Course Specific: You are expected to know basic spreadsheet commands (MS Excel, Google Sheets, or any compatible spreadsheet program). *Students with no prior experience in MS Excel are expected to gain basic understanding from watching training video(s). Please refer to Blackboard (Bb) under Technology Requirements.* Those with no prior experience in GIS would **need** some training videos-tutorials. This course will use *ArcGIS Online*. You **should** watch the relevant videos (see the *Technology Requirements* section in *Bb*). Instruction to access *ArcGIS Online* can be found on *Bb* under *Resources*. Without the relevant background and do not complete the training **WILL NOT** be able to complete respective assignments.

### Learning Outcomes:

The Mason Core Synthesis requirements have the following three learning outcomes (LO) and this course meets all of them:

1) Communicate effectively in both oral and written forms, applying appropriate rhetorical standards. 2) Using perspectives from two or more disciplines, connect issues in a given field to wider intellectual, community or societal concerns. 3) Apply critical thinking skills to: a) evaluate the quality, credibility and limitations of an argument or a solution using appropriate evidence or resources, or, b) judge the quality or value of an idea, work, or principle based on appropriate analytics and standards.

After finishing this course, students are expected to have:

- a better appreciation of global and local population issues, and
- a good comprehension of fundamental **population-demographic concepts, theories, models, methods and techniques**, both spatial and aspatial.

Specifically, students should be able to:

1. find demographic data, determine their appropriateness; (LO 2 & 3)
2. select suitable methods and tools to analyze these data; (LO 2 & 3)
3. interpret the results or other demographic measures to answer pertinent questions; (LO 1-3)
4. discern claims or arguments about population issues either based on their current knowledge or by conducting additional research. (LO 1-3)

Therefore, students will be evaluated by how well they **comprehend** these bodies of knowledge in terms of their **definitions**, **apply** the knowledge gained from this course to answer societal questions, and **interpret** data and results of analysis.

### Texts:

**Required Text:** Thomas, R. K. (2018) *Concepts, Methods and Practical Applications in Applied Demography*. Springer. (ebook is fine) <https://link.springer.com/book/10.1007/978-3-319-65439-3>

**Supplemental Text:** Newbold, B. (2017) *Population Geography: Tools and Issues*. Rowman & Littlefield Publishers.

**Major Topics:** (detailed semester schedule – refer to the last page)

***Module 1: Covering the Basics***

1. Introduction (Ch. 1) Population Geography/Spatial Demography: What & Why?
2. Perspectives and Methods (Ch. 2)
3. Data and Tools (Ch. 3)

***Module 2: Fundamental Demographic Concepts***

4. Population Size, Distribution and Concentration (Ch. 4)
5. Population Composition and Characteristics (Ch. 5)

**\*\* March 11 (10:30am – noon) - Mid-term: covers material up to Module 2, Topic 5.**

***Module 3: Demographic Processes*** Demographic Processes: Fertility (Ch. 6)

6. Demographic Processes: Mortality (Ch. 7)

**\*\* March 28 - Submit the first page of your report for comments**

7. Population Spatial Dynamics: Migration (Ch. 8)
8. Population Temporal Dynamics: history, change, and measurement (Ch. 9)

**\*\* April 22 – Submit Report Presentations**

**\*\* April 27 – Complete Peer Review of Presentations**

**\*\* May 2 – Final Report**

***Module 4: Selected Application(s) of Demographic Analysis***

9. Health or Political Demographics (Ch. 11 or 12)

**\*\* May 13 (10:30–1pm) - Final Exam: focuses on Module 3, Topic 6 and onward.**

**Assessment Methods: (details below)**

|                      |  |
|----------------------|--|
| 6 exercises          | 30 (not equally weighted)                |
| Mid-term             | 10 (March 11, Friday, 10:30 am – noon)   |
| Final                | 20 (May 13, Friday, 10:30 am – 12:30 pm) |
| Participation        | 20 (Self introduction & 3 Discussions)   |
| Communication        | 20                                       |
| First page of report | 4 (March 28)                             |
| Presentation (oral)  | 8 (April 22)                             |
| Report (written)     | 8 (May 2)                                |

**Total: 100 points**

- Distribution of the total final scores will be used to determine the final grades using a “sliding scale” (curved).
- Highest scores, regardless of how high or low this score may be, will receive A, and average scores will receive B- or C+.
- Percentages of students receiving the corresponding grades will be approximately: 20-30% (A), 35-50% (B), 20-30% (C). D and F grades will be assigned only if necessary or when the total scores are “significantly” lower than the rest of the class.
- 10% of the score for each day will be deducted if an assignment is late. Unless otherwise stated, all assignments are due by the end of the day in which they are due.
- All materials submitted to meet the evaluation criteria should be completed in accordance with the student Honor Code (University Catalog). Also, no “double dipping” of term paper/report is allowed unless permissions are given by involved instructors.

**Incomplete** will be handled strictly according to the University policy. Make-up tests are not given unless under unusual circumstances such as serious illness. Proof (documentation) is necessary to be eligible for make-up test/exam. No early exams will be given.

## Assessments

### Exercises (30 points):

Six exercises will be given out after associated with the lectures. Specific instructions will be provided. All exercises should be submitted through Bb, and typed with 1-inch margin on all sides, 12-point font in Times New Roman, with page numbers and double-spaced.

### Participation (20 points):

For selected topics, one or more questions will be posted on the Discussion Board on Bb. Students' responses are counted as Participation.

### Mid-term & Final (10 & 20 points):

These are online tests taken on Bb. Types of questions include multiple choice-answers, fill in the blanks, True/False, matching, short answers (a few sentences). No long essay in these tests.

### Report (8 points):

To partially meet the synthesis requirements, students are required to submit a report.

Describe and explain the population characteristics of a chosen country – this is the focus of the report. Each student should use the Wikis tool in Bb (under **Enter your selected country**) to announce to the class the country you have chosen to research and write about. Countries taken cannot be used by another student (“first-come, first-serve”). However, prior to the sign up, students should conduct preliminary research, exploring if sufficient data and information for the particular country is available. The report should include the minimum the following sections:

- Geographical and political settings of the chosen country (*how may these factors affect population distribution and characteristics? If not, no need to include it.*)
- Who are the people? Demographic characteristics.
- Where are the people? Their spatial distributions.
- Relevant and significant historical development related to the population, if any.
- Major population issues in the country (all issues are related to population, but some are more population-oriented and more important than others).
- The length of the report should be 2800 to 3000 words (please provide a word count, approximately 10 to 13 pages), plus references, tables and figures/maps.
- Select your country by **February 13**.
- Main objectives: demonstrate your comprehension of and apply concepts, theories and methods you learn in the course. It is not just a descriptive report, but it needs to **explain** population or demographic phenomena.

### Formats of country report:

- References: use a format adopted by a major academic journal (*Annals of the AAG; The Professional Geographer*, etc.) consistently throughout the report/paper
- Sources of information, including statistics, should be provided (as citations, references or footnotes). **Plagiarism** means claiming the credits that you do not deserve.
- The length of the report should be 2800 to 3000 words (please provide a word count, approximately 10 to 13 pages), plus references, tables and figures/maps. It should be in double-spaced, single-sized, 12 point in Times New Roman or a similar font. Detail of the submission process will be provided later. The report/paper is due on April 30. Earlier submissions will be appreciated.
- **March 28**: you are required to submit the first page of your report/review for comment. Although this one-page will not be graded, you will regret if you do not submit it.
- Rubrics for the report are posted in Bb. They will be used for grading.

**Presentation (8 points):**

Student would record a video or a Power-point slideshow with audio to give a concise presentation of approximately 8 minutes to summarize the report to meet the verbal communication requirement of a synthesis course. The presentation should be well structured and organized, highlighting major findings of your research. In the presentation, unique population characteristics or issues of the chosen country may be highlighted. Rubrics for presentation and technology supporting the video recording are posted on Bb. Students should upload the video to Bb by *9am of April 22*.

**Rubrics** are provided to guide your preparation of presentations (and reports). Please refer to them before putting together your presentations (and reports). They can be accessed after you enter the Discussion Board and create a thread. In addition, I will post them under Assignments.

You are encouraged to review all presentations as these presentations should be informative and part of the course materials. Reviewing them is an important component of the learning activities. However, in order to receive the credits for your own presentation, you need to rate and respond to at least TWO other presentations using the rating of 1 star (worst) to 5 stars (best) by mid-night of *April 27* via Bb. Your presentation score will be the combined average of points/stars (1-5) you received from your fellow classmates (25%) and my evaluation (75%).

**Other Policies:**

**Academic Integrity:** Mason is an Honor Code university; please see the University Catalog for a full description of the code and the honor committee process. The principle of academic integrity is taken very seriously and violations are treated gravely. What does academic integrity mean in this course? Essentially this: when you are responsible for a task, you will perform that task. When you rely on someone else's work in an aspect of the performance of that task, you will give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt (of any kind) please ask for guidance and clarification.

**Mason Diversity Policy:**

Please refer to the university non-discrimination policy and diversity statement.

<https://universitypolicy.gmu.edu/policies/non-discrimination-policy/>  
<https://stearnscenter.gmu.edu/knowledge-center/general-teaching-resources/mason-diversity-statement/>

**Student Responsibilities:**

Please refer to the university policies and expectations.

<https://catalog.gmu.edu/archives/2017-2018/policies/student-rights-responsibilities/>  
<https://catalog.gmu.edu/archives/2017-2018/policies/student-rights-responsibilities/>

**GMU Email Accounts:** Students must use their GMU email account to receive important University information, including messages related to this class. See <http://masonlive.gmu.edu> for more information.

**Office of Disability Services:** If you are a student with a disability and you need academic accommodations, please contact the Office of Disability Services (ODS) at 993-2474, <http://ods.gmu.edu>. All academic accommodations must be arranged through the ODS.

**GMU Resources:**

The Writing Center: <http://writingcenter.gmu.edu>

University Libraries, Ask a Librarian: <http://library.gmu.edu/ask>

Counseling and Psychological Services: <http://caps.gmu.edu>

University Catalog: <http://catalog.gmu.edu>

University Policies: <http://universitypolicy.gmu.edu>

Academic Calendar (drop/withdrawal deadlines): <https://registrar.gmu.edu/calendars/>

**Course Materials and Student Privacy:**

- All course materials posted to Blackboard or other course site are private; by federal law, any materials that identify specific students (via their name, voice, or image) must not be shared with anyone not enrolled in this class.
- Video-recordings of class meetings that include audio or visual information from other students are private and must not be shared.
- Live Video Conference Meetings (e.g. Collaborate or Zoom) that include audio or visual information from other students must be viewed privately and not shared with others in your household.
- Some/All of our synchronous meetings in this class will be recorded to provide necessary information for students in this class. Recordings will be stored on Blackboard [or other secure site] and will only be accessible to students taking this course during this semester.

**Addition resources on Excel & GIS**

- <https://infoguides.gmu.edu/c.php?g=564384&p=6105534>
- <https://infoguides.gmu.edu/geospatial/learn>

\*The instructor reserves the right to modify this syllabus, but will notify students about the change.



## Detailed Schedule:

| Week/Dates            | Modules/Topics  | Learning Activities  | Assignments/ Action items   | Dues §  |
|-----------------------|---|--|---|---|
|                       | Pre-course actions  | Watch ESRI ArcGIS Online & Excel videos (see <i>Technology Requirements</i> in Bb)   | - Purchase textbook<br>- Start looking for a country to write about (to be decided on Feb 13)   | 1/23 (Sun): Pre-class Self Introduction on Discussion Board             |
| Week 1<br>1/24 - 30   | <b>Module 1: Basics</b><br>1: Introduction                                      | - Review Lecture Slides: Ch. 1<br>- Watch Lecture Videos<br>- Review major topics  | - Online Live session: 10:30 am (Jan28)<br>- Online discussion #1<br>- Sign on to ArcGIS Online (test your access credential)   |   |
| Week 2<br>1/31 – 2/6  | <b>Module 1: Basics</b><br>2: Perspectives and Methods                          | - Review Lecture Slides: Ch. 2<br>- Watch Lecture Videos<br>- Review major topics  | - Online Live session: 10:30 am (Feb 4)<br>- Start Assignment #1 (due Feb 13)   | 1/31: Discussion #1: close  |
| Week 3<br>2/7 – 13    | <b>Module 1: Basics</b><br>3: Data and Tools                                    | - Review Lecture Slides: Ch. 3<br>- Watch Lecture Videos<br>- Review major topics<br>- Watch the ArcGIS Online Demo video & Review the Demo slides (Resources) | - Online Live session: 10:30 am (Feb 11)<br>- Start your Country Report (Feb 13)<br>- Start Assignment #2 (due Feb 20)  | 2/13: Assignment #1<br>2/13: Select your country (in Wiki tool)         |
| Week 4<br>2/14 – 20   | <b>Module 2: Concepts</b><br>4: Population Size, Distribution and Concentration | - Review Lecture Slides: Ch. 4<br>- Watch Lecture Videos<br>- Review major topics  | - Online Live session: 10:30 am (Feb 18)<br>- Online discussion #2<br>- Install <i>Respondus Lockdown Browser</i> (instruction under Resources) and test it with the mock-up test | 2/20: Assignment #2   |
| Week 5<br>2/21 – 27   | <b>Module 2: Concepts</b><br>5: Population Composition and Characteristics      | - Review Lecture Slides: Ch. 5<br>- Watch Lecture Videos<br>- Review major topics  | - <b>No Online Live session (2/25)</b><br>- Start Assignment #3 (due Mar 6)   | 2/21: Discussion #2 close   |
| Week 6<br>2/28 – 3/6  | <b>Module 3: Processes</b><br>6: Fertility                                      | - Review Lecture Slides: Ch. 6<br>- Watch Lecture Videos<br>- Review major topics  | - Online Live session: 10:30 am (Mar 4)<br>- Start Assignment #4 (due Mar 21)   | 3/6: Assignment #3  |
| Week 7<br>3/7 – 13    |   | <u>Catch up, Review &amp; Study</u>  | <b>Mid-term: 10:30 – noon (Fri, 3/11)</b>   |   |
| Week 8<br>3/14 – 20   |   |  | <i>Spring Recess</i>  |   |
| Week 9<br>3/21 – 27   | <b>Module 3: Processes</b><br>7: Mortality                                      | - Review Lecture Slides: Ch. 7<br>- Watch Lecture Videos<br>- Review major topics  | - Online Live session: 10:30 am (Mar 25)<br>- Online discussion #3  | <b>3/21: Assignment #4</b>  |
| Week 10<br>3/28 - 4/3 | <b>Module 3: Processes</b><br>8: Migration                                      | - Review Lecture Slides: Ch. 8<br>- Watch Lecture Videos<br>- Review major topics  | - Online Live session: 10:30 am (April 1)<br>- Start Assignment #5 (due April 10)   | 3/28: Discussion #3 close<br>3/28: Submit the first page of your Report |
| Week 11<br>4/4 – 10   | <b>Module 3: Processes</b><br>9: Population Temporal Dynamics                   | - Review Lecture Slides: Ch. 9<br>- Watch Lecture Videos<br>- Review major topics  | - Online Live session: 10:30 am (April 8)<br>- Start Assignment #6 (due April 17)   | 4/10: Assignment #5   |
| Week 12<br>4/11 – 17  |   | <u>Catch up, Prepare your Presentation</u>   | - Online Live session: 10:30 am (April 15) *  | 4/17: Assignment #6   |
| Week 13<br>4/18 – 24  |   | - Watch Student Presentations  | - Online Live session: 10:30 am (April 22) *<br>- Peer Grading Presentations  | <b>4/22:</b> Presentations should be uploaded to Bb <b>before 9am</b> . |
| Week 14<br>4/25 – 5/1 |   |  | - Online Live session: 10:30 am (April 29)<br>- Revised reports for final submission  | <b>4/27:</b> Complete Peer Grading (by mid-night).                      |
| Week 15<br>5/2 – 8    | <b>Module 4: Application</b><br>Health (11) or Political (12) Demographics      | - Review Lecture Slides: Ch. 11 or Ch. 12<br>- Watch Lecture Videos<br>- Review major topics   | - Online Live session: 10:30 am (May 6)<br>- Revised reports for final submission   | <b>5/2: Final Report</b>  |
| 5/13 (Fri)            |   |  | <b>Final Exam: 10:30 am – 1 pm</b>  |   |

§ Unless stated otherwise, all assignments are due by the end of the day – midnight. (\* - as needed)

<\*\*\* The instructor reserves the right to modify this schedule, but will notify students about the change. \*\*\*>