

August 27, 2023

## GGG 304/590 Population Geography

Spring 2023

*Online mode with a weekly synchronous session: Tuesdays 4:30 –5:45 pm*

Instructor: David Wong, Professor

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

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

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

### Course Description:

“Demography is Destiny.” While the validity of that statement is debatable, it is quite certain that 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.

**GGG 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.

**GGG 590:** this course can be used to substitute **GGG 704** (Spatial Demography), meeting several program requirements. A substitution form has to be submitted after finishing the course.

### 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
- 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 course requires an online synchronous session once a week (Tuesdays, 4:30 – 5:45 pm). The live session will use **Blackboard Collaborate Ultra**. During the live sessions, we will:

August 27, 2023

- address logistical and course-content questions;
- review, comment, clarify lecture material;
- summarize or comment the discussions on Bb Discussion Board.

Attending these live sessions 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 (Tuesdays, 4:30 – 5:45 pm), we will switch to Zoom (the link below) with the pass code “population”. (<https://gmu.zoom.us/j/98925297084>)

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.

For students in GGS 590, the additional learning outcome is the ability to **conduct research** on population issues, and the evaluation of this outcome is based on a **research paper**.

August 27, 2023

## 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. (2021) *Population Geography: Tools and Issues*. Rowman & Littlefield Publishers.

## References (mainly for GGS 590)

On general demography:

Lundquist, J. H., D. L. Anderton, and D. Yaukey 2015. *Demography: The Study of Human Population*. Waveland Press.

Peters, G. L. and R. P. Larkin (2010) *Population Geography: Problems, Concepts, and Prospects*. Kendall/Hunt Publishing Company.

Weeks, J. R. (2015, 12<sup>th</sup> ed.) *Population: An Introduction to Concepts and Issues*. Wadsworth.

## References on special topics:

Clark, W. A. V. (1986) *Human Migration*. Sage Publications.

Howell, F. M., J. R. Porter and S. A. Matthews (2015) *Recapturing Space: New Middle-Range Theory in Spatial Demography*. Springer.

Plane, D. A. and R. A. Rogerson (1994) *The Geographical Analysis of Population with Applications to Planning and Business*. Wiley & Sons. (PR)

Porter, J. R. and F. M. Howell. (2012) *Geographical Sociology: theoretical foundations and methodological applications in the sociology of location*. Springer.

Rogers, A. (1985) *Regional Population Projection Models*. Sage Publications.

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

### **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)

**\*\* Oct 3 (4:30 – 5:45 pm): Mid-term - covers material up to Module 2, Topic 5.**

### **Module 3: Demographic Processes**

6. Demographic Process: Fertility (Ch. 6)
7. Demographic Processes: Mortality (Ch. 7)
8. Population Spatial Dynamics: Migration (Ch. 8)

**\*\* Oct 24 - Submit the first page of your report for comments**

9. Population Temporal Dynamics: history, change, and measurement (Ch. 9)

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

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

**\*\* Nov 21 – Submit GGS 304 Report Presentations**

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

**\*\* Nov 28 – GGS 590 Presentations**

**\*\* Dec 4 – Submit Final Reports (304) and Papers (590)**

**\*\* Dec 12 (4:30– 7:10 pm) - Final Exam: focuses on Module 3, Topic 6 and onward.**

August 27, 2023

**Assessment Methods: (details below)**

6 exercises	30 (not equally weighted)
Mid-term	10
Final	20
Participation	20 (Self introduction & 3 Discussions)
Communication (GGS 304)	20
First page of report	4
Presentation (oral-video)	8
Report (written)	8
Research (GGS 590)	20
Term Paper/Project	15
Presentation (online)	5

**Total: 100 points**

GGS 304 students only:

- 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.

For All Students:

- 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 lectures are reviewed. 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, fill in the blanks, True/False, matching, and short answers (a few sentences). No long essay in these tests.

**Report (8 points) for GGS 304:**

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

August 27, 2023

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 there are sufficient data and information for the particular country. The report should include, at the minimum, the following sections:

- Geographical and political settings of the chosen country (important to provide the context; also, *how may these factors affect population distribution and characteristics?*)
- 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 **September 10**.
- Main objectives: demonstrate your comprehension of and apply concepts, theories and methods you learn in the course. It is not just a descriptive report: 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.
- 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.
- **October 26:** you are required to submit the first page of your report to be reviewed 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) for GGS 304:

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 November 21**.

**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

August 27, 2023

starts (best) by mid-night of **November 27** via Bb. Your presentation score will be the combined average of points/stars (1-5) you received from your fellow classmates (25%) and the instructor's evaluation (75%).

### **Term Paper/Project and Presentation (20) for GGS 590**

Students are expected to conduct research on a population-oriented topic, demonstrating the comprehension of some concepts, models, or methods discussed in class. The research can be a library research on a topic, producing a term-paper. Or the research can be an empirical research, analyzing real world data or creating a simulation model. Research result can be compiled as a report/paper. By October 15, each student should submit a tentative title and an abstract of 250 words, summarizing the research question(s), significance of the question(s), methods and data (skip these topics if it is a library research paper), and likely findings. The instructor will provide feedback. Students failing to do so and proceed will bear the risk of submitting an "unacceptable paper." Rubrics for the paper will be provided in due course. At the end of the semester, each student will give a 12-15 minutes presentation to summarize the paper or research project.

### **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. George Mason University Honor Code and the Mason Values of Academic Integrity can be found in the Office of Academic Integrity or online at (<http://oai.gmu.edu/the-mason-honor-code/>).

**The Use of AI-generative material:** Although this course does not have explicit policies addressing the use of AI to complete course assessments, policies of using of AI may fall under the **Academic Integrity** policies. Unless specified, work submitted is expected to be produced entirely by the student. Thus, using AI-generated material partly or entirely will be a violation of academic integrity.

#### **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/>

**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.

August 27, 2023

**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 - Start looking for a country to write about (to be decided on Sept 10)	8/21 (Mon): Pre-class Self Introduction on Discussion Board
Week 1 8/21 - 27	<b>Module 1: Basics</b> 1: Introduction	- Review Lecture Slides: Ch. 1 - Watch Lecture Videos - Review major topics	- Online Live session: 4:30 pm (Aug 22) - Online discussion #1 - Sign on to <i>ArcGIS Online</i> (test your access credential)	
Week 2 8/28 – 9/3	<b>Module 1: Basics</b> 2: Perspectives and Methods	- Review Lecture Slides: Ch. 2 - Watch Lecture Videos - Review major topics	- Online Live session: 4:30 pm (Aug 29) - Start Assignment #1 (due Sept 10)	8/28: Discussion #1: close
Week 3 9/4 – 10	<b>Module 1: Basics</b> 3: Data and Tools	- Review Lecture Slides: Ch. 3 - Watch Lecture Videos - Review major topics - Watch the ArcGIS Online Demo videos & Review the Demo slides (Resources)	- Online Live session: 4:30 am (Sept 5) - Start your Country Report (Sept 10) - Start Assignment #2 (due Sept 24)	9/10: Assignment #1 9/10: Select your country (in Wiki tool)
Week 4 9/11 – 17	<b>Module 2: Concepts</b> 4: Population Size, Distribution and Concentration	- Review Lecture Slides: Ch. 4 - Watch Lecture Videos - Review major topics	- Online Live session: 4:30 pm (Sept 12) - Install <i>Respondus Lockdown Browser</i> (instruction under <b>Resources</b> ) and test it with the mock-up test	
Week 5 9/18 – 24	<b>Module 2: Concepts</b> 5: Population Composition and Characteristics	- Review Lecture Slides: Ch. 5 - Watch Lecture Videos - Review major topics	- Online Live session: 4:30 pm (Sept 19) - Online discussion #2 - Start Assignment #3 (due Oct 1)	9/24: Assignment #2
Week 6 9/25 – 10/1		<u>Catch up, Review &amp; Study</u>	- Online Live session: 4:30 pm (Sept 26): reports (304) and papers (590)	9/25 Discussion #2 close 10/1: Assignment #3
Week 7 10/2 – 8		<u>Catch up, Review &amp; Study</u>	<b>Mid-term: 4:30 – 5:45 pm (Tue, 10/3)</b>	
Week 8 10/9 – 15	<b>Module 3: Processes</b> 6: Fertility	- Review Lecture Slides: Ch. 6 - Watch Lecture Videos - Review major topics	- <del>Online Live session: 4:30 pm (Oct 10)</del> <b>No online session (the day after Fall Break)</b> - Start Assignment #4 (due Oct 22)	

August 27, 2023

Week 9 10/16 – 22	<b>Module 3: Processes</b> 7: Mortality	- Review Lecture Slides: Ch. 7 - Watch Lecture Videos - Review major topics	- Online Live session: 4:30 pm (Oct 17) - Online discussion #3	10/22: Assignment #4
Week 10 10/23 – 29	<b>Module 3: Processes</b> 8: Migration	- Review Lecture Slides: Ch. 8 - Watch Lecture Videos - Review major topics	- Online Live session: 10:30 am (Oct 24) - Start Assignment #5 (due Nov 5)	10/23: Discussion #3 close 10/26: Submit the first page of your Report
Week 11 10/30 – 11/5	<b>Module 3: Processes</b> 9: Population Temporal Dynamics	- Review Lecture Slides: Ch. 9 - Watch Lecture Videos - Review major topics	- Online Live session: 4:30 pm (Oct 31) - Start Assignment #6 (due Nov 5)	11/5: Assignment #5
Week 12 11/6 – 12	<b>Module 4: Application</b> Health (11) or Political (12) Demographics	- Review Lecture Slides: Ch. 11 or Ch. 12 - Watch Lecture Videos - Review major topics	- Online Live session: 4:30 pm (Nov 7)	11/12: Assignment #6
Week 13 11/13 – 19		<u>Catch up, Prepare your Presentation</u>	- Online Live session: 4:30 pm (Nov 14) *	
Week 14 11/20 – 26		- Watch GGS 304 Student Video Presentations	- Peer Grading Presentations	<b>11/21:</b> Presentations should be uploaded to Bb <b>before 9am.</b>
Week 15 11/27 – 12/4		GGs 590 Student Presentations	- Online Live session: 4:30 pm (Nov 28) - Revised reports for final submission	<b>11/27:</b> Complete Peer Grading (by mid-night). <b>12/4: Final Report</b>
<b>12/12 (Tue)</b>			<b>Final Exam: 4:30 – 7:10 pm</b>	