

August 9, 2025

GGG 304-504 Population Geography

Fall 2025, Wednesdays 4:30 – 7:10 pm, 2312 Exploratory Hall (in-person)

Instructor: David Wong, Professor

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Office Hours (in-person or virtual): Wednesdays 3-4 pm, or by appointment

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

Canvas: <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, physical environment and societal conditions affect population dynamics. Many of these contextual factors, cultural, political, and historical influence demographic characteristics through the spatial dimension. 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 Social and Behavioral Sciences requirements, draws on knowledge from several core areas: **social science** (involving economics, geography, and demography); **natural science** (relations to the natural environment); and **global contexts** (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, or permission of instructor.

GGG 504 meets the requirements of several GGS graduate programs, including the human geography core of ESGS PhD.

Learning Outcomes:

The learning outcomes (LO) of this course are adapted from the LO of Mason Core’s Social and Behavioral Sciences. They are adjusted to meet the specific content of this course.

After completing this course, students should be able to:

1. Explain how individuals and population groups are influenced by contextual factors, especially geographical, from local to global scale.
2. Demonstrate awareness of changes in social and cultural constructs related to demography and population studies.
3. Use appropriate methods, techniques, models and data to apply population-demographic concepts, terminologies, principles and theories in the analysis of significant population-demographic issues, past or present.

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;
2. select suitable methods and tools to analyze these data;
3. interpret the analysis results or typical demographic measures to answer pertinent questions;
4. discern the correctness of claims or arguments about population issues either based on their knowledge learned in this course or by conducting additional research.

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 **GG504**, 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 or project**.

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 in-person course with learning activities scheduled for each week.
- A significant portion of learning activities (~ 50%) are conducted in your own time.
- Detailed schedule for specific learning activities are posted on Canvas.
- Lecture slides are posted on Canvas. Students should review them prior to classes.

Technology Expectations:

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 Canvas on "Using spreadsheet" under the Resources module.* 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 *GIS-related resources* under the *Resources* module in *Canvas*). Instruction to access *ArcGIS Online* can also be found on *Canvas* under *Resources*. Without the relevant background and do not complete the training **WILL NOT** be able to complete respective assignments.

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 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, 12th 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 detailed semester calendar on Canvas)

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)

Module 3: Demographic Processes

6. Demographic Process: Fertility (Ch. 6)
7. Demographic Processes: Mortality (Ch. 7)
8. Population Spatial Dynamics: Migration (Ch. 8)
9. Population Temporal Dynamics: history, change, and measurement (Ch. 9)

Module 4: Selected Application(s) of Demographic Analysis

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

Assessment Methods/Grading: (details below)

5 exercises	30 (not equally weighted)
Mid-term	10
Final	20
Participation (4 discussions)	20
County Report (GGS 304 only)	20
First page of report	4
Presentation (oral-video)	8
Report (written)	8
Research (GGS 504 only)	20
Term paper/project	15
Presentation	5
Total:	100 points

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- 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.

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- Average scores will receive an A- or B+

Submission of work:

- 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 Academic Standard Code (<https://academicstandards.gmu.edu/academic-standards-code/>). 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.

Details of 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 Canvas, 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 Canvas. Students’ responses are counted as Participation.

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

These are online tests taken in class. 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.

Written Report, including the first-page, & presentation – GGS 304 (20 points):

Students are required to submit a written report and give a presentation summarizing the report. Details of the report and presentation are provided separately.

Research (Paper/Report & Presentation) – GGS 504 (20 points):

Students are required to conduct a library research or complete a research project focusing on one or more population issues from a geographical perspective. Details are provided on Canvas.

Other Policies:

Academic Integrity: please refer to Mason’s Academic Standards Code (<https://academicstandards.gmu.edu/academic-standards-code/>)

The Use of AI-generative material: All work submitted in this course must be your own original work; use of AI writing tools, such as ChatGPT, are prohibited in this course and will be

considered a violation of academic standards. All academic standards violations will be reported using the [Academic Standards Referral Form](#). While AI must be involved (e.g., when using some search engines, in word processing tools with AI-embedded) in preparing submitted work, using AI beyond this software-embedded level will be a violation of academic integrity. Student work may be analyzed using an originality detection tool focused on Generative AI tools. The learning objectives for this course require students to demonstrate skills and practices that they can reliably perform without supplemental tools.

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/>

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 Canvas 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.

Addition resources on Excel & GIS

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

The University has compiled a list of common policies affecting all courses as the [Common Policies Addendum](#). They are part of this syllabus and they can be accessed via the addendum hyperlink.

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