

# **GGG 551: CARTOGRAPHIC DESIGN**

## **COURSE SYLLABUS, FALL 2024, 3 CREDITS**

### **INSTRUCTOR**

Name: Dr. Timothy Leslie

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### **COURSE STRUCTURE**

Meeting time(s): W 7:20 - 10pm

Location: Exploratory Hall 2103

Modality: 100% in person

Course URL: [canvas.gmu.edu](https://canvas.gmu.edu)

Pre-Requisites: None

Textbook(s): No required textbook. All external content will be available electronically.

### **COURSE GOALS**

Cartography encapsulates both the art and science of map creation, and this course focuses on the creation and application of maps, emphasizing thematic mapping and fundamental mapping principles such as projection, scale, generalization, and symbolization, while highlighting effective design choices for geospatial communication using mapping software and digital outputs. Lectures and course content will address cartographic principles, mapping techniques, and visualization processes. Fundamental to your growth is understanding the diversity of representation forms and map types that geographers use to communicate spatial phenomena. Mastery includes understanding how form aligns with geographic data, phenomena, patterns, and processes.

We will engage this visual form of communication across a wide array of dimensions, fostering "good" maps that are informative, creative, easy to understand, and aesthetically pleasing. Maps are crucial communication and decision support tools, and mastering map production according to established cartographic conventions is essential for many professionals. A substantial component of this course includes sequential map design and production exercises where you will implement cartographic concepts to create professional-quality maps and visual products for communication or data exploration. We will work through the process of effectively communicating spatial messages by understanding cartographic guidelines and accepted design practices. You will demonstrate mastery of design theory concepts regarding scale, projections, symbolizations, classification, colors, and typography within effective spatial communication, developing a critical eye for visualization and good design. This includes focusing on strategies to guide product design toward intended audiences, tasks, and contexts.

By the end of the course, students will possess advanced skills in cartographic design and spatial data handling, equipped to create sophisticated map products and contribute to research and professional projects in the field.

## ASSESSMENT IN THIS COURSE

Assessment	Percent
Exam	20%
Project Proposal	5%
Final Project	35%
Content Exercises	20%
Quizzes	10%
In-Class Activities	10%

Your learning is assessed in several ways to ensure a comprehensive understanding and application of cartographic principles and techniques.

- 1) A comprehensive exam covering the entire course, emphasizing applied knowledge and synthesis of cartographic principles and techniques. This exam is designed to fairly assess your understanding and ability to apply what you have learned. I do not provide a review sheets for the exam, all material discussed in lectures and assignments is fair game for exam questions (though I will not ask specific questions about software components). I encourage you to actively engage with the course content, participate in class discussions, and utilize your notes and textbooks to prepare thoroughly.
- 2) You will submit a project proposal outlining your chosen topic, objectives, and preliminary design plans. Regular checkpoints will help ensure steady progress and provide opportunities for feedback and guidance.
- 3) For undergraduates, this involves creating a professional-quality map that applies the skills and concepts learned throughout the course. Graduate students will be expected to produce a set of maps that demonstrate a higher level of sophistication and detail. This project allows you to showcase your creativity and technical skills.
- 4) Weekly assignments include practical exercises and short design tasks related to weekly lecture topics. They are designed to reinforce your learning and provide hands-on experience with cartographic techniques.
- 5) Short quizzes will be administered to reinforce recently covered material. These quizzes serve as checkpoints to ensure you are keeping up with the course content and understanding key concepts.
- 6) Active engagement in class discussions, group work, and hands-on exercises is crucial. Participation helps create a dynamic learning environment and ensures you are benefiting from collaborative learning opportunities.

**TENTATIVE SCHEDULE** (subject to change)

<b>WEEKS</b>	<b>IN-CLASS</b>
<b>Week 1, AUG 28</b>	Course Overview, Introduction to Cartography
<b>Week 2, SEPT 4</b>	Map Design
<b>Week 3, SEPT 11</b>	Classification
<b>Week 4, SEPT 18</b>	Projections, The Final Project
<b>Week 5, SEPT 25</b>	Color
<b>Week 6, OCT 2</b>	Text, Project Proposal Submission
<b>Week 7, OCT 9</b>	Infographics
<b>Week 8, OCT 16</b>	Choropleth Mapping
<b>Week 9, OCT 23</b>	Proportional Symbol Mapping
<b>Week 10, OCT 30</b>	Dot Density, Isopleth, Cartograms
<b>Week 11, NOV 6</b>	Exam
<b>Week 12, NOV 13</b>	No Class – Celebration of Regional Science
<b>Week 13, NOV 20</b>	Project Drafts Due, Peer Review Begins
<b>NOV 27</b>	NO CLASS - THANKSGIVING
<b>Week 14, DEC 4</b>	Project Virtual 1-on-1s
<b>Final Exam Period, DEC 11</b>	NO CLASS - Project Submissions

## GRADING

The expected grade breaks are the following:

A	A-	B	B-	C	D
100 - 92	91.9 - 87	86.9 - 82	81.9 - 77	76.9 - 71	70.9 - 65

### Submission Guidelines:

- Platform: All submissions will be done through Canvas.
- Multiple Submissions: For assignments where a student has multiple submissions, only the most recent submission will be graded.
- Format: Unless otherwise specified, assignments should be submitted as PDFs with in-line text and tables (not screenshots of tables).
- Document Links: Links to documents stored on services such as Google Docs/Drive will be treated as non-submissions.
- Readable Files: Ensure your submitted files are readable. Any corrupted file will be treated as a non-submission.

### Late Submission Policy:

- Penalty: Late submissions will incur a 10% deduction. After 24 hours, the penalty increases by 10%. These deductions are based on the total points possible for the relevant submission.
- End-of-Semester Cutoffs: All submissions must meet the posted end-of-semester cutoffs to be graded.
- Valid Documentation: Valid documentation for full credit on late submissions includes a conference program with your presentation, military obligations, or university-sanctioned activities documented by an appropriate official. Illnesses or events for individuals for whom you are not the primary caretaker are not sufficient justification for delay.
- Religious Observance or University Activities: If you will miss classes due to a religious observance or participation in a University activity, you are obligated to notify the instructor within the first two weeks of the semester (University Policy AP.1.6.1). In such cases, a reasonable alternative opportunity will be provided.

### Grade Concerns and Opportunities:

- Requests for Grade Reconsiderations: All requests for grade reconsiderations must be made via email. When requesting reconsideration, refer to specific points of objection. Each student will be held to the same requirements and evaluated according to the same criteria, except as required by university policies on accommodation.
- Expect No Extra Credit: Generally, there are no extra credit opportunities in this class, and requests are not entertained. If extra credit opportunities arise, they will be announced and provided equitably to the entire class.
- Support: If you are not satisfied with your progress during the semester, please see me as early as possible to address or bring up concerns.

### Feedback and Grading Timeline:

- Timeline: Grades for submitted material will typically be provided within 4 business days of submission.
- Wait Period: Please wait at least 4 business days before contacting the instructor regarding grades.
- Detailed Feedback: For more detailed feedback on graded material, follow up either in class or through a scheduled meeting. Drafts are not given feedback or graded unless students come to office hours with specific questions.

## NAVIGATING THE COURSE

### Attendance and Participation:

- Importance of Attendance: Attending class is essential for your success in this course. There's a strong positive correlation between attendance and final grades, so make the most of every opportunity to learn.
- Punctuality: Arriving on time shows respect for your classmates and helps maintain the flow of our class activities. Please make every effort to be punctual.
- Class Cancellations: If I need to cancel class, I will notify you via email as soon as possible. In case of an unexpected absence, please understand and assume the best until further notice.
- No Unauthorized Guests: To maintain a focused learning environment, please do not bring unauthorized guests to class.

### Engagement and Respect:

- Active Participation: Your participation makes our class vibrant and engaging. Share your thoughts, ask questions, and contribute to discussions to enhance everyone's learning experience.
- Curiosity: Questions are a vital part of learning. Feel free to ask for clarification or more information whenever you need it. Your curiosity helps us all learn better.
- Focused Learning: Let's all try to stay focused on our class activities. While technology can be a useful tool, keep the use of devices relevant to coursework.
- Respectful Communication: Express your ideas clearly and respectfully. Online, use thoughtful language and be mindful of tone to ensure effective communication.

### Time Management and Deadlines:

- Effective Planning: Keep an eye on deadlines and plan your time accordingly. Staying organized can help reduce stress and improve the quality of your work.
- Staying Ahead: Try setting personal deadlines a bit earlier than the actual due dates. This can give you a buffer to refine your work and avoid last-minute rushes.
- Adaptability: Be prepared for unexpected challenges. If you finish your work early, you'll have extra time for revisions or other activities. If something goes wrong, learn from it and adjust your approach for next time.

### Modifications

- Occasionally, circumstances arise during the semester that necessitate changes. Should they occur, any syllabus changes or additions will be communicated and considered final.

## CONTACTING ME

### Office Hours and Appointments

I am here to support your learning and help you with any challenges you may encounter during the course. I offer two primary ways to get in touch outside of class:

1. Zoom Appointments: To schedule a meeting, use my Calendly link: [Calendly - Office Hours](#). If you cannot find an available time that fits your schedule, please email me with at least three possible meeting times, and we will find a mutually convenient alternative. Appointments are better suited for answering complex questions, such as "How do I do \_\_\_" or "What are your thoughts on \_\_\_?"
2. Email: I usually respond to emails quickly, Monday through Thursday. Emails sent after 12 PM on Friday or over the weekend will generally be answered by noon on the following Monday. For questions that can be

answered with a simple yes or no, email is the best option. If your concern is more complex, I may ask you to schedule a meeting or discuss it with me in class.

### **Email Etiquette**

When emailing me, please follow these guidelines to ensure a timely and effective response:

- **Read the Syllabus First:** Many common questions are addressed in the syllabus. Please check here before sending your email.
- **Clear and Specific:** Clearly state your question or concern. If you are asking about a specific assignment, include its name and due date.
- **Professional Tone:** Use a professional and respectful tone in your emails. This includes proper grammar, punctuation, and complete sentences.

### **Common Email Inquiries**

To maintain efficient communication, please note the following:

- **Missed Class and Excusal Notes:** If you miss a class, refer to the syllabus and classmates for missed information. You do not need to inform me of your absence unless it involves an exam or major assignment. If you need to be excused from class due to illness or another valid reason, please provide a general non-specific note from your doctor indicating the period covered.
- **Grade Discussions:** If you wish to discuss a grade, provide specific points of objection rather than a generalized response. This approach allows for a more productive and focused conversation.
- **Grade Rounding:** Requests to round up final grades will not be entertained. Please focus on meeting the course requirements to achieve your desired grade.

## **TECHNICAL EXPECTATIONS**

### **Technical Requirements:**

- **Reliable Access:** You'll need regular access to a computer with an updated operating system and a stable internet connection to complete course activities.
- **Privacy and Sharing:** Course materials posted on Canvas or other platforms are private. Do not share any materials that identify specific students (via name, voice, or image) with anyone not enrolled in the class.
- **Specialized Software:** If you need to use ESRI proprietary software off-campus or on non-Windows machines, you can access it through the Citrix Virtual Lab. Instructions are provided upon request.
- **Adobe Products:** Adobe products are limited to on-campus use only. There are no software keys for self-installation.

### **File Management:**

- **Organized Digital Space:** Keeping your digital files organized is crucial. Consider using a consistent naming convention for your files, such as dates or revision numbers (e.g., "ProjectText\_Jan3"). This can help you stay on top of your assignments.
- **Frequent Saving:** Save your work frequently and keep separate backups. Using a cloud service like OneDrive (provided by Mason) or Dropbox can help you avoid losing your work.

- Large Files: Some course files might be large. A portable or easily accessible electronic storage solution will be useful for managing these files.
- Self-Management: Managing files and technical tasks without assistance is a vital part of completing course activities. For non-content related technical issues on the course website, please contact Mason ITS for assistance. I cannot provide technical support for these issues.

#### **Online Platforms:**

- Canvas and Other Tools: Activities and assignments will regularly use Canvas. Familiarize yourself with this platform to ensure smooth participation.
- Web-Conferencing: We will use Zoom for office hours. You will need a device with a functional camera and microphone for speaking. While camera use is not always required, it's appreciated when you do turn it on during speaking.
- Recording Sessions: Outside video and/or audio recording is permitted only with prior written consent or if part of an approved accommodation plan. Sessions should be viewed privately and not shared with others.

## **GENERATIVE AI AND ACADEMIC STANDARDS**

The use of content-generating AI websites and bots is prohibited unless specifically allowed in an assignment. Submitting content from generative AI websites without permission will be treated as academic misconduct.

## **INCLUSIVITY AND SUPPORT**

### **Inclusivity and Respect:**

As members of the George Mason University community, we value diversity in race, ethnicity, gender identity, socioeconomic status, nationality, and perspective. Each student brings unique contributions to our class, enriching our collective learning experience. This course may involve discussions on sensitive or controversial topics, and it is expected that everyone will approach these discussions with an open mind and a respectful attitude. It is my intent that all students feel well-served by this course and that the diversity you bring is viewed as a resource, strength, and benefit. If something said or done in the classroom by either myself or other students is particularly troubling or causes discomfort or offense, please let me know.

### **Name Preference and Pronouns**

You are encouraged to use your chosen first name and indicate your pronouns. I use male pronouns (he/him) and my last name is pronounced LESS-LEE. My preference is that you address me as “Professor,” “Professor Leslie,” or “Dr. Leslie.” If there is a specific way you would like to be addressed, please let me know and update your Mason file in PatriotWeb.