Introduction to

Cartographic Processes

GEOG 3305

Fall 2020

**Syllabus**

# ONLINE Course

Department of Geography and Anthropology, Kennesaw State University

**Instructor:** Mrs. Ulrike (Uli) Ingram **Office Hours:** by appointment only

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**Phone:** 678-824-2620 **Teaching Assistant:** TBD

COURSE DESCRIPTION:This course will introduce basic cartographic principles and tools used in making maps. Lectures will introduce you to concepts such as thematic map design, while computer assignments will help link the materials presented in the lecture to work produced in the practical component of the course. Lab assignments will help reinforce your understanding of cartographic principles and concepts as they apply to the creation and use of maps. You will be working with ESRI software, Adobe Illustrator [or equivalent freeware], and might be working with MS Excel, digital databases, remotely sensed images and/or aerial photographs, and compasses and rulers.

## COURSE PREREQUISITES:

No pre-requisites, but you should have a basic understanding of computers, Windows operating system, and the internet, access to the internet, a login to KSU’s Desire 2 Learn (D2L) website, and familiarity with maps and numbers/math/statistics. You do NOT need prior GIS experience. You should recognize that some labs will take many hours to complete. If you do not possess a working knowledge of computers, an ability to work in the lab or online, proficiency with numbers, spatial understanding, and/or cannot commit to additional time in the lab, do not take this class.

COURSE DELIVERY FORMAT:This is an online class.

In order to help you keep up with the work in this course, I have set up the course with weekly learning modules in D2L, which contain lectures, readings, quizzes, discussions, and assignments.

The materials for each learning module will usually be available from 8:00 am on Mondays until 9:00 pm the following Monday. All quizzes, discussions, and assignments are due at **9:00 pm on Mondays**. Please make sure to note this in your calendar. For each module, you will have a “lecture” to read, readings from the online textbook or other sources, weekly quizzes about the assigned readings and lecture, and a group discussion in which to participate. There will also be computer/GIS assignments during the course of the semester.

COURSE REQUIREMENTS:You need an External Hard Drive or large USB Thumb Drive, Jump Drive or Memory Stick. I highly recommend one of at least 16GB, and 100GB or more if taking more than one GIS course now and into the future.

COURSE TEXT:None. Instead we will use a collection of online modules about cartography.

There will be additional readings, which will be posted on D2L. This includes excerpts from Monmonier’s *How to Lie with Maps* and/or Brewer’s *Designing Better Maps*.

COURSE OBJECTIVES:Upon the completion of the course, you should be able to do the following:

*1. Learn the role of cartography in understanding space & place;*

*2. Identify, interpret & manipulate map scale, coordinate systems, & projections;*

*3. Determine appropriate projections, statistics, classifications, symbolization, & other map properties based on the intended use of the map;*

*4. Employ cartographic design principles of style, color, type, aesthetics & symbol standards;*

*5. Assemble & create quality thematic maps that illustrate locations, patterns, trends, or relationships among spatial &/or non-spatial themes or features;*

*6. Critically assess acceptable &unacceptable mapping errors, & understand how maps can be used for propaganda & falsehoods (in other words, know maps lie!);*

*7. Evaluate, critique, propose revisions & modify a map;*

*8. Utilize geographic information systems (GIS) to store, manage, modify & display spatially referenced data, geographic queries, & statistical/analytical maps.*

By the end of the course you should be able to transform spatial data into thematic representations of the world as well as understand what constitutes a good map. I also hope that at the end of this course, you will have improved your ability to think critically, communicate effectively, and demonstrate skills in geographic inquiry.

## **COURSE COMPONENTS:**

During the course of the semester, you have several ways to demonstrate your command of these concepts:

Contract: The first assignment for this course is the course contract. By electronically “signing” and returning the blank contract file to me, you state that you have read all the “Start Here” documents and agree with the course policies. The blank contract is provided in the Start Here Module. You will need to download it. Open it and add your digital signature (meaning put your name next to Name:). Save the file as “YourLastName\_Contract.doc.” Then upload it to the Contract dropbox in D2L. As part of the contract submission, you are also required to upload a photo of yourself to your D2L profile. You will also have to read and agree to the GIS lab policy here: <http://goo.gl/forms/yF6dJ9n1PS>. You will only receive credit for the contract if you complete all 3 (THREE) parts (the contract document, your profile picture and the GIS lab policy).

Quizzes:Nearly every week you will be given a multiple choice or short answer quiz via D2L. The quizzes will help you learn the theories and concepts from lecture or lab, and prepare you for the exams. NOTE: There are NO make-ups for missed quizzes.

Discussions:Each student is required to participate in almost weekly discussions throughout the semester. Each message needs to be at least one paragraph in length. A good average length for a paragraph is somewhere between 150 – 250 words or between a third and two thirds of a double-spaced page. There is no maximum limit. Each discussion posting will be turned in on the due date by typing your message into the respective Discussion in D2L (refer to the schedule at the end of the syllabus for due dates; also refer to the D2L calendar). You need to write full sentences, proper grammar, and use a professional tone when writing your discussion. Your discussion entries are visible to the other students in the class, so do not write anything you would not say in class. The discussions are due on Mondays at 9:00 pm. Late submissions will absolutely not be accepted.

Lab Assignments**:** These labs will introduce you to cartographic processes, and will be a guide in using ArcGIS and ArcMap. Lab exercises for the week will be posted in D2L.

Final Poster, Proposal and Presentation: You will first submit a proposal on your topic of choice, and if approved, you will create maps with supporting text as a poster, infographic, or storymap. Further instructions and guidelines will be posted in D2L within the first month. Examples from previous semesters will be available in D2L. You will be required to submit a presentation at the end of the semester. Note: if you submit the poster, infographic, or storymap, but do not complete the presentation, you will receive zero points for both.

Exams:The two exams will be practical, hands-on applications of the cartography skills you are learning (using ArcGIS Pro or ArcGIS Online). I guarantee you it will be long and challenging, so learn the material as you go along in class to make your exam experiences less painful. The second exam is non-comprehensive, but important concepts covered earlier in the semester are not off limits.

Grading: Evaluation and weighted grade assignments are as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Components** | **How many** | **Points Each** | **Points Total** |
| Contract | 1 |  | 10 |
| Quizzes | 8 | 20 | 160 |
| Discussions | 9 | 10 | 90 |
| Labs | 11 | 20 | 220 |
| Exam 1 | 1 |  | 100 |
| Exam 2 | 1 |  | 100 |
| Proposal | 1 |  | 30 |
| Progress Report | 1 |  | 30 |
| Final Poster, Infographic, Storymap | 1 |  | 150 |
| Presentation | 1 |  | 60 |
| TOTAL |  |  | 940 |

Final Grades (in percent):A: >90; B: 89.99-80; C: 79.99-70; D: 69.99-60; F: <59.99. No curves.

Note: plagiarism and other forms of academic dishonesty are rewarded with an F (zero).

Expected Workload:For every credit you are enrolled in, you should dedicate up to 3 hours per credit per week to the subject. As this is a 3 credit class, do not be surprised if some weeks you have up to 9 hours of work to complete. Please contact me ASAP if you have problems with your assignments. Things to note:

* Incomplete, sloppy, or late work will have a grade to reflect it.
* Remember, no name = no grade = no exceptions.

### Late Work and Make-Up Work:

There are 4 cases in which you *might* be able to make up your assignments for full credit:

1. a doctor’s note explaining why

2. an obituary notice of a relative

3. you contacted me *before* class with a legitimate reason

4. a police report detailing an accident. Arrests are not a legitimate excuse.

I will accept late submissions for the labs (specifically NOT the discussions and quizzes or any components of the final poster) up to one week late. You will lose 10% for each day of lateness. For a lab that is due at 9:00 pm on Monday, if you submit it on Tuesday, you will lose 10%, if you submit it on Wednesday, you will lose 20%, and so forth.

## **COURSE POLICIES**

FILENAMES:You need to include your last name at the beginning of the file name. For example for the chapter1 exercise, I would name my submission: Ingram\_Chapter1.zip. If you do not include your last name at the beginning of the file name, I will take off 5 points.

FILETYPES:If you submit the incorrect file format, I will take off 5 points. Be sure to read the instructions of each assignment very carefully. For some exercises, I require exported maps in jpg format, for others I need the shapefiles, and for others the original Adobe Illustrator file format.

### TECHNOLOGY REQUIREMENTS:

Internet: Since this course is conducted entirely on-line, it is required that you have access to a computer with a reliable and HIGH speed internet connection. If you don’t have reliable internet at home, you need to find a backup location. You will have to log into D2L SEVERAL times a week for this course. You will not be able to complete parts of this course with a tablet, chromebook, or phone. You must be able to send email with attachments, and upload documents in D2L. If you find yourself unable to log in multiple times per week and actively engage with this course, I would recommend you withdraw from this course. I cannot make exceptions for students who are only active in this course 1 or 2 days per week.

D2L training is available here: <http://uits.kennesaw.edu/support/d2ltraining.php>

If you have any questions about D2L, please ask me for help first and then as a second step contact KSU’s ITS (Information Technology Service) in one of the ways below:

Email: [studenthelpdesk@kennesaw.edu](mailto:studenthelpdesk@kennesaw.edu); Call: 470-578-3555; Walk-in support: See <http://uits.kennesaw.edu/support/> for times and locations; NOTE: If you contact ITS, you need to copy me in on the service request email.

Adobe Reader: You will need Adobe Reader to open the lecture files, readings, and assignments (which are in pdf format). If you do not already have Adobe Reader installed, you can download it for free at: [www.adobeacrobat.com.](file:///C:/KSU/1102/Spring2014/WeeklyMaterials/1-Jan8-19-START%20HERE/www.adobeacrobat.com)

Word Editor: You will need Microsoft Word for some of the assignments. If you do not have access to Microsoft Word, you can use Open Office instead. Open Office is a free software available at: [http://www.openoffice.org](http://www.openoffice.org/). Alternatively you may connect to the GIS lab remotely and use Microsoft Word remotely instead of installing Open Office.

Remote Connection Option: For any of the assignments that require a software that you do not have installed on your home computer, you may either install it on your home computer or connect remotely to the GIS lab. There are some programs that require a license that is too expensive for you to purchase. Those programs are available in the GIS lab, so you can work remotely for those assignments. For more details about how to connect to the GIS lab remotely, please see the following link: <http://virtualowl.kennesaw.edu/>

In order to run the virtual client successfully, your computer will need to meet the following minimum requirements: Windows 7 or higher; Mac OS 10.8 or higher; Ethernet cable; Mac AirPort turned off; Display resolution above 800x600

### COMMUNICATION:

In any email you send me, you need to include the course and section number and your name in the subject line as well as the subject itself (for example: Geog 3305 John Smith – question about xyz). This applies to emails in D2L or to my Kennesaw.edu email address. I will respond to all emails that contain questions. If you send me an email you can expect an answer within 24 hours. If you do not receive an answer, please send me a follow-up email, in case your first email did not reach me. NOTE: if I send you a D2L email and you have email forwarding set up and you respond to that email outside of D2L, the message will bounce. You can only reply to D2L emails in D2L.

There are two ways to email me:

1. D2L Mail Tool. NOTE: I can only respond to D2L emails from my computer, not my phone when I am away from my desk.
2. My KSU email address ([uingram@kennesaw.edu](mailto:uingram@kennesaw.edu?subject=Geog1102)). You are absolutely required to put the course name and your name in the subject line. I have 100 students each semester, so I am not going to search for your name to find which course you are taking in order to answer your specific question.

For any questions that may benefit other students as well, I’ll ask you to post your question on our Questions Discussion Forum, so others will see the question and answer too rather than me answering multiple, individual emails.

There are two ways to contact me by phone:

1. If you need a quick response, you can send a text message to [678-824-2620](callto:678-824-2620). You will need to include your name and the course you are taking in each of your messages.
2. You may also call me at that number. Please leave a message, and I’ll call you back. I don’t answer phone calls from unknown numbers, but I will call you back if you leave a message.

If you want to connect with the other students in this class, you need to post in the default discussion topic.

Grades: I will try to post grades within one week of the due date. The grades will be posted to the D2L gradebook. After I have posted a new grade, it will notify you the next time you log into D2L that there is a new grade available for you to view. The quizzes are graded automatically and the grade is available right after you take it. I grade the discussions and written assignments manually, therefore you will not see your grade immediately.

Course Netiquette:*Rules of conduct for discussion board and email.*

In all correspondence on discussion boards and email, you are required to use standard English. Abbreviations are not allowed. For discussions and email, proper grammar and correct spelling are expected. Please proofread your submissions before posting.

Use of the electronic communication modes on D2L is restricted to relevant course material and questions. You must be respectful at all times of other students and the professor. Profanity or derogatory comments are not allowed. You will receive one warning for any postings or emails that are deemed inappropriate or disrespectful. After the first warning, you will receive zero credit for any disrespectful postings and the postings will be deleted.

Continued misuse of the discussion board or email will lead to a failing grade in the course.

Please refer to any of these websites for detailed netiquette guidelines.

1. <http://www.albion.com/netiquette/>

2. <http://www.studygs.net/netiquette.htm>

3. <http://www.associatedcontent.com/article/1677222/online_class_language_netiquette.html?cat=15>

## **KSU SERVICES AND POLICIES**

Financial Aid Attendance Compliance:You are responsible for determining your enrollment status in all classes to protect your financial aid monies. NOT ATTENDING A CLASS FOR WHICH YOU ARE REGISTERED IS NOT THE SAME AS WITHDRAWING FROM THE COURSE. You must complete an online withdrawal to be removed from a course. If you stop attending class but do not complete an online withdrawal BEFORE the last day to drop without academic penalty, you will receive a grade of WF, which counts as an F in calculating your grade point average and counts as a completed course for determining your financial aid award.

Academic Integrity: Every KSU student is responsible for upholding the provisions of the Student Code of Conduct, as published in the Undergraduate and Graduate Catalogs. Section II of the Student Code of Conduct addresses the University’s policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to University materials, misrepresentation/falsification of University records or academic work, malicious removal, retention, or destruction of library materials, malicious or intentional misuse of computer facilities and/or service, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the University Judiciary Program, which includes either an “informal” resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct’s minimum one semester suspension requirement.

For the any written content, you are not allowed to copy any sentences or paragraphs directly from books, journal papers, lectures, newspaper articles, websites, or other people’s work. This kind of action is considered as Plagiarism. Please write in your own words or using appropriate citation for very short quotes. You will need to give the source of each citation, and list it in References.

Every written assignment that you submit in this course will be checked for plagiarism using TurnItIn. TurnItIn is integrated into D2L. You will NOT have to create a TurnItIn login, or upload your assignments to TurnItIn. After you submit your assignments to D2L, an originality report will be generated showing me whether the content is original to you. I will contact you individually if there is an issue after running your assignment through the TurnItIn program. If your TurnItIn score is higher than 20%, I will email you to discuss the cause and consequences.

Disability:Kennesaw State University provides support for students with disabilities through the KSU disabled Student Support Services (<http://sds.kennesaw.edu/>). It is the student’s responsibility to identify himself or herself as an individual with a disability. A qualified individual in the area of the identified disability must provide the documentation of the disability. This documentation must show how the disability creates a significant impact on the individual’s academic performance; it should include suggested accommodations that are reasonable to provide in an academic setting.

Kennesaw State Policy on Incompletes:Please read the section on the following website about the grade “I” (for incomplete) and how to change an “I” to an actual grade: <http://catalog.kennesaw.edu/content.php?catoid=24&navoid=2170>

Kennesaw State Student Code of Conduct:Please review the following link for Kennesaw’s policy on student code of conduct: <http://scai.kennesaw.edu/codes.php>

### SUPPORT SERVICES AND OTHER RESOURCES:

KSU Policies: <http://distanceed.hss.kennesaw.edu/elearning/onestopshop.html>

KSU student support services: <http://learnonline.kennesaw.edu/resources/index.php>

KSU student resource links: <http://registrar.kennesaw.edu/policies/>

Confidentiality and Privacy Statement: <http://enrollmentservices.kennesaw.edu/training/ferpa.php>

University – Student Rights Statement: <http://catalog.kennesaw.edu/content.php?catoid=27&navoid=2263>

Course Accessibility Statement (ADA statement): <http://sds.kennesaw.edu/guidelines/institutional-policies.php>

D2L Start Page: <http://d2l.kennesaw.edu/>

Help with D2L: <https://web.kennesaw.edu/acs/service/desire2learn>

More Help with D2L: <https://web.kennesaw.edu/acs/pages/desire2learn/student-resources-d2l>

ESRI (company that makes ArcGIS software) Website: <http://www.esri.com/>

Career Services:The College of Humanities and Social Sciences is pleased to offer academic advising to students in the Undergraduate Advising Center (UAC). The UAC is located in Pilcher 129, on the first floor near the Foreign Language Resource Center. Their hours are Monday - Thursday 8 am - 6 pm, and Friday 8 am to 5 pm. Students are strongly encouraged to make appointments using the website, <http://www.kennesaw.edu/hssadvising/appointments.php>, or by calling the Center during office hours at [770-794-7728](callto:770-794-7728). For more information, visit the UAC website: <http://www.kennesaw.edu/hssadvising/home.php>.

Undergraduate Advising Center: The College of Humanities and Social Sciences is pleased to offer academic advising to students in the Undergraduate Advising Center (UAC). The UAC is located in Pilcher 129, on the first floor near the Foreign Language Resource Center. Their hours are Monday - Thursday 8 am - 6 pm, and Friday 8 am to 5 pm. Students are strongly encouraged to make appointments using the website, <http://www.kennesaw.edu/hssadvising/appointments.php>, or by calling the Center during office hours at 770-794-7728. For more information, visit the UAC website: [http://www.kennesaw.edu/hssadvising/home.php.](http://www.kennesaw.edu/hssadvising/home.php)

KSU’s Writing Center: If you need any help with writing your assignments for this class, you can ask me specific questions. If you are looking for more general help with writing, please contact the English Department’s writing center. It is located in the Humanities Building in room 242. The phone number is: 770-423-6380. The website is: [http://writingcenter.kennesaw.edu](http://writingcenter.kennesaw.edu/).

KSU’s Library: KSU’s library provides a variety of resources to KSU students. The on-campus library is called the Sturgis Library and is located in Building 17 (on KSU’s campus map). It features books, and many current and bound periodicals. KSU’s library also has a searchable website which will easily let you find newspaper and journal articles, as well as additional research for your discussion postings. The library website is available at: <http://library.kennesaw.edu/>

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| **Product/Software** | **Privacy Policies** | **Accessibility Policies** |
| ArcGIS (ESRI) | <http://www.esri.com/legal/privacy> | <http://www.esri.com/legal/section508/swguide> |
| Microsoft Office | <https://privacy.microsoft.com/en-us/privacystatement/> | <https://www.microsoft.com/enable/products/office2013/> |
| Voicethread | <https://voicethread.com/howto/category/privacy-faq/> | <http://voicethread.com/about/features/accessibility/> |
| Youtube | <https://www.youtube.com/static?template=privacy_guidelines> | <https://support.google.com/youtube/answer/189278?hl=en> |
| Adobe | <http://www.adobe.com/privacy.html> | <http://www.adobe.com/accessibility/compliance.html> |
| Kaltura Mediaspace | <https://corp.kaltura.com/privacy-policy> | [https://corp.kaltura.com/sites/default/files/Datasheets/Kaltura%20Accessibility%20Datasheet. Pdf](https://corp.kaltura.com/sites/default/files/Datasheets/Kaltura%20Accessibility%20Datasheet.%20Pdf) |
| Google Earth | <https://policies.google.com/privacy?hl=en&gl=us> | <https://www.google.com/accessibility/> |

### Online Cartography Websites:

AAG Cartography Specialty Group (a good one!!!): <http://www.csun.edu/~hfgeg003/csg/cartolink.html>

USGS: <http://carto-research.er.usgs.gov/>

UN: <http://www.un.org/Depts/Cartographic/english/>

Animated Maps: <http://cartography2.org/>

GIS Lounge: <http://gislounge.com/cartographicresources/>

ESRI Website: <http://www.esri.com/>

COURSE OUTLINE:Below is an overview of the course content to be taught this semester.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **#** | **Date** | **Topics** | **Readings** | **Labs** | **DUE** |
| 1 | Aug 17-24 | Intro to Cartography | Chapter 1 | Lab1: AGOL | D1 (Intros), Contract, Q1 (Syllabus), Lab1 |
| 2 | Aug 24-31 | Map Design | Chapter 2 | Lab2: Storymaps | D2 (Maps), Q2 (map design), Lab2 |
| 3 | Aug 31-Sep 8 | Choropleth Maps | Chapter 3 Part 1 | Lab3: Choropleth | D3 (Data Sources), Lab3 |
| 4 | Sep 8-14 | Dot Density Maps; Proportional & Grad. Symbol Maps | Chapter 3 Part 2 | Lab4: ArcGIS Maps for Creative Clouds | D4 (Poster), Lab4 |
| 5 | Sep 14-21 | Other Thematic Map Types | Chapter 3 Part 3 | Lab5: Link Analysis | Q3 (thematic maps), Lab5 |
| 6 | Sep 21-28 | Data for Maps | Chapter 4 | Lab6: Data | Lab6, Q4 (data and stats) |
| 7 | Sept 28-Oct 5 | Map Visuals, Symbols and Colors | Chapter 5 | Lab7: Smart Mapping | D5 (Storymaps), Lab7; Q5 (symbols and classification) |
| 8 | Oct 5-12 | Exam 1 |  |  |  |
| 9 | Oct 12-19 | Geodesy, Coordinates | Chapter 6 Part 1 | Lab8: Projections | D6 (cartograms), Lab8, Poster Proposal |
| 10 | Oct 19-26 | Map Projections I | Chapter 6 Part 2 | Lab9: Mapping and Visualization | Lab9 |
| 11 | Oct 26-Nov 2 | Map Projections II | Chapter 6 Part 3 | Lab 10: Cartographic Creations | Lab10, Q6 (projections) |
| 12 | Nov 2-9 | Typography | Chapter 7 | Lab11: Labels | Lab 11, Poster Progress, D7 (Poster Progress) |
| 13 | Nov 9-16 | Cartographic Ethics | Chapter 8 |  | Q7 (ethics, type) |
| 14 | Nov 16-Nov 30 | Work on posters | None | Poster, Infographic, storymap | Q8 (Poster), D8 (Favorite Map Types) |
| 15 | Nov 30-Dec 7 | Final Poster Presentations | None | Poster, Infographic, storymap | D9 (Poster), Poster, Presentation |
| 16 | Dec 9-12 | Final Exam | None |  | Final Exam |

Key: Q = Quiz , D = Discussion, Labs and Exercises

### IMPORTANT DATES TO NOTE:

August 17 (Monday): First day of classes

October 7 (Wednesday): Last Day to Withdraw without Academic Penalty

Nov 23-29 (Mon-Sun): Fall Break

Dec 7 (Monday): Last day of classes

This course syllabus provides a general plan for the course; deviations may be necessary. I will let you know throughout the semester if the schedule will change. These announcements will be sent via D2L e-mail. I would highly recommend you have your D2L email forwarded to your phone or device you check the most often. You will be held accountable for the announced changes, so make sure that you check your D2L and KSU e-mail often.