

# GEOG 5210 Fundamentals of GIS – Autumn 2018

## Meeting Times:

*Lecture:* MW 3:00-3:55pm, Jennings 155

*Lab:* M or W 4:10-5:05pm, Derby 135

OR

*Lecture:* TR 8:00-8:55am, Jennings 155

*Lab:* T or R 9:10-10:05am, Derby 135

**Instructor Name and Email:** Dr. Emily S. Castellucci, [castellucci.5@osu.edu](mailto:castellucci.5@osu.edu)

**Office Hours and Location:** My office is Derby Hall 1168. My office hours are by appointment only. If you would like to schedule a meeting with me, please visit my scheduling website:

<https://emilycastellucci.clickbook.net/>. If you cannot make your appointment, please cancel.

Note: I am not available for meetings on Fridays, so please plan accordingly.

## Teaching Assistants:

Name	Email	Office Hours
Forrest Schoessow, M.S.	<a href="mailto:schoessow.1@osu.edu">schoessow.1@osu.edu</a>	Wednesdays, 1-3pm, Scott Hall 136
Jared Schenkel	<a href="mailto:schenkel.17@osu.edu">schenkel.17@osu.edu</a>	Tuesdays, 1-3pm, Derby Hall 160

**Course Description:** This course introduces principles of geographic information systems and their applications in spatial analysis and information management. The course is designed to give students an understanding of cutting-edge geospatial technologies, their capabilities, uses, and limitations. Representative applications for each discipline area are demonstrated in the computer laboratory portion.

**Schedule:** You can find a link to the schedule on the course website.

## Materials:

- Textbook:
  - We will use the book *GIS Fundamentals: A First Text on Geographic Information Systems, 5th Edition* (2016) by Paul Bolstad as the required text. It is available at Barnes & Noble The Ohio State University Bookstore, Amazon (see <https://amzn.com/1506695876>), or the publisher's website ([https://www.xanedu.com/higher-education/educators/custom-books-catalog/gis\\_fund\\_5e/](https://www.xanedu.com/higher-education/educators/custom-books-catalog/gis_fund_5e/)), which is where you can find an eBook, if you prefer that option.
  - The 5<sup>th</sup> edition has been substantially updated from the 4<sup>th</sup> edition. You are expected to obtain the 5<sup>th</sup> edition and NOT the 4<sup>th</sup> edition.
  - I will provide the first two chapters of the textbook on the course website to give you time to obtain the textbook, if you do not already have it. However, you will be expected to have your own copy of the textbook for remaining readings.
  - Other readings and resources are provided on the course website.

- Portable Memory Device:
  - You need to bring a portable memory device, such a flash drive or external hard drive, with you to every lab session, and all of your work needs to be saved to this flash drive.
  - Do NOT leave any of your work saved to the lab computers, which use class accounts and are not secure, and do NOT forget to take your portable memory device with you when you leave. Failure to make your work inaccessible to other students presents data security and academic integrity concerns. For more information, see the Academic Misconduct section under Policies.
  - A device with at least 8 GB of storage should be more than sufficient for the needs of this course.

### Evaluation:

- Labs: 48%
  - There will be 12 labs, and ALL labs will be counted toward your final grade in the course. No labs will be dropped.
  - Labs will be due according to the deadlines listed in the course schedule, which correspond to the due dates listed on the course website.
  - Do not expect to complete all of your lab work during the scheduled lab time. You will need to dedicate time outside of class to completing your labs.
  - All lab assignments will be submitted via the course website in a quiz-like format. Because you only have one submission attempt, the questions will be provided to you in advance; you can find the questions at the end of each lab's instructions.
  - Some questions are automatically graded. The correct answers for these questions are available one week after the lab is due. Sometimes it may appear that your answer is correct but has been marked incorrect; please wait until the correct answers are released before making inquiries about such incidents.
  - Some questions require manual grading. If you do not receive full credit for a manually graded question, you can check for feedback/comments by going to Assignments on the course website, clicking on the assignment, and scrolling down until you see comment bubbles.
  - For your lab submissions, sometimes a specific file type (e.g. PDF, PPTX, etc.) is requested. Failure to submit the correct file type may incur a 50% penalty for that question.
- Exams: 42%
  - There will be 4 exams, and your lowest exam grade will be dropped.
  - Each exam contains 33 questions, but only 30 correct answers are required to make a 100%. The highest grade you can make on any exam is a 100%.
  - Exams will be administered using scantrons. Please bring your BuckID, a scientific calculator (NOT a graphing calculator), and a #2 pencil to every exam.
  - Exams will not be returned to you. If you wish to review your exam, you will need to schedule a meeting with your instructor.
- Participation/Attendance: 10%
  - 1 point – Hello My Name Is Survey

- 2 points – Syllabus Quiz
- 7 points – Attendance
  - Attendance is required and will be recorded at all lecture and lab meetings. An attendance sheet will be passed around the classroom, and you are responsible for remembering to sign it. If you forget to sign the attendance sheet during the scheduled class time, you will be marked absent (unexcused).
  - Unexcused Absences:
    - You are allowed only 2 unexcused absences from lecture sessions and 1 unexcused absence from lab sessions without penalty.
    - Additional unexcused absences from lecture sessions will result in a half-point (-0.5) deduction from your attendance grade, and additional unexcused absences from lab sessions will result in a full point (-1) deduction from your attendance grade. No more than 7 points total can be lost from attendance.
  - Excused Absences:
    - Requests for excused absences (e.g. due to illness, car trouble, conference attendance, required job training, death of a loved one, etc.) require completion of the [Request for Excused Absence Form](#). Please do *not* email your instructor or TA to request an excused absence! Your submission of the form, along with accompanying documentation (e.g. doctor's note, bill from a mechanic, proof of conference registration, email from a supervisor, obituary, etc.), may not be reviewed immediately, but you may assume that your absence is excused, unless you hear otherwise from your instructor. Please note that absences due to oversleeping, getting stuck in traffic, and going on vacation are not excused, and there may be other reasons for an absence that are also not excusable, as judged by the instructor. Finally, keep in mind that you may submit the request for an excused absence after the absence has taken place, if necessary.
    - IMPORTANT: You may skip lab entirely and without penalty *if* you have completed and submitted the lab that is due next *and* have completed the [Request for Excused Absence Form](#). (Do not forget to complete the form for EVERY lab session from which you wish to be excused.) You are allowed any number of excused absences according to this policy; none of these excused absences count against your 1 unexcused absence without penalty.
- *Grading Scale* (OSU standard scale):
 

○ A	93-100%	○ B-	80-82%	○ D+	67-69%
○ A-	90-92%	○ C+	77-79%	○ D	60-66%
○ B+	87-89%	○ C	73-76%	○ E	0-59%
○ B	83-86%	○ C-	70-72%		

Note: Your final grade as seen on the course website will be rounded to the nearest whole number (e.g. an 89.49 is a B+ but an 89.50 is an A-) before being submitted to the University Registrar at the end of the semester.

### **Policies:**

1. *Email correspondence policies.*
  - a. You are responsible for all course related emails, so be sure to check your email frequently (i.e. daily on weekdays).
  - b. When emailing your instructor at [castellucci.5@osu.edu](mailto:castellucci.5@osu.edu), always include the course number and meeting time somewhere in the subject or body of the email. (This is important since your instructor teaches multiple classes and needs to know to which class you are referring.)
  - c. Please note that your instructor prefers to be emailed at [castellucci.5@osu.edu](mailto:castellucci.5@osu.edu), NOT via the Canvas Inbox/Conversations messaging system.
2. *Course website policy.* You are responsible for all announcements, additional reading, assignments and other material posted at the Canvas site, so be sure to check it frequently (i.e. daily on weekdays). Note:
  - a. You may find that it helps to update your notifications. You can do this by going to Account > Notifications.
    - i. There are four notification options, and I suggest that you turn on “Notify me right away” or at least “Send daily summary” for everything until you figure out which notifications are most beneficial to you.
    - ii. Important: You may need to make sure your email address is confirmed to receive notifications! If you are NOT receiving notifications in your email, despite updating your notification settings, here is what you need to do:
      1. Go to Account > Settings.
      2. Near the top right, you'll see your email address listed, but if there is an exclamation point ("!") next to your email address, hover your mouse over it, and it'll say something along the lines of "This email address has not been confirmed." This is why you're not getting notifications in your email.
      3. To confirm your email address, you need to either click the exclamation point or the email address itself, and a window should pop up, prompting you to click a link that will send a confirmation email. Click the link to send the confirmation email.
      4. Check your OSU email account for the confirmation message, and the link provided in the email to confirm the registration. After that, you should be good to! You should never have to do this again.
  - b. There is a Canvas app available for [iPhone](#) and [Android](#), which you may find beneficial for keeping up with the course website.
3. *Lab questions policies.*
  - a. On the course website, there will be a discussion for each lab. If you have questions about labs outside of the scheduled lab time, you are required to use

the appropriate discussion to post your questions. Your instructor and TA will be notified of your post and will respond as soon as possible. Please do NOT email your lab-related question to your instructor or TA, unless it is a grade-related question.

- b. Additionally, please post your lab-related question as least 24 hours before the day/time the lab is due to allow your instructor and TA time to respond.

4. *Late policies.*

- a. All course assignments, other than assignments in the labs category, will not be accepted late.
- b. Late submissions will be penalized 1 point for each business day late, up to 10 business days. After 10 business days, late submissions will still be accepted through the date listed in the schedule, but the late penalty will not exceed 10 points. For example, for submissions due on Thursdays at 11:59pm, the late penalty technically begins Friday at 12:00am.
  - i. Submitted by 11:59pm Thursday or earlier - on time
  - ii. Submitted 12:00am - 11:59pm Friday - 1 point deduction
  - iii. Submitted 12:00am - 11:59pm Saturday - 2 point deduction
  - iv. Submitted 12:00am - 11:59pm Sunday - 2 point deduction
  - v. Submitted 12:00am - 11:59pm Monday - 2 points deduction
  - vi. Submitted 12:00am - 11:59pm Tuesday - 3 points deduction
  - vii. Etc.
- c. It is possible for the late penalty to exceed the number of points awarded for correct answers, but a zero (not a negative number) will be assigned in these cases. (Tip: Sometimes it is better to accept a small point deduction for a little extra time to work on your lab than to submit incomplete or rushed results.)
- d. Extensions will NOT be granted due to lost work; be sure you back up and keep all of your work.

5. *Exam policies.*

- a. Exams must be taken at the scheduled time, unless you have submitted the [Request for Excused Absence Form](#), and it has been approved by the instructor. Please contact your instructor in advance of the scheduled exam to schedule a make-up exam, except in the case of emergency.
- b. You are expected to arrive to all exams *on time*. Students who arrive late to the exam will be permitted to begin the exam, until the first student leaves. After a student completes the exam and leaves, students who arrive late will not be permitted to begin the exam, will be asked to leave, and will be considered absent. Your absence will be considered unexcused, unless you submit a [Request for Excused Absence Form](#), and it is approved by the instructor.
- c. Make-up exam penalties:
  - i. Make-up exams for excused absences will not be penalized.
  - ii. Make-up exams for unexcused absences will be penalized 15%.
- d. You are expected to finish all exams *on time*. Exams begin when schedule class time begins, and exams end when the scheduled class time ends. At the end of

the scheduled class time, you are to stop working and turn in your exam. You may not continue working on your exam after the scheduled class time.

6. *Disability services policy.* The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: [slds@osu.edu](mailto:slds@osu.edu); 614-292-3307; [slds.osu.edu](http://slds.osu.edu); 098 Baker Hall, 113 W. 12th Avenue.
7. *Academic misconduct policy.* It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct: [http://studentlife.osu.edu/pdfs/csc\\_12-31-07.pdf](http://studentlife.osu.edu/pdfs/csc_12-31-07.pdf).
  - a. Collaboration for the purposes of troubleshooting is highly encouraged in this course, but everyone is expected to submit their own unique work. For example, asking a classmate how to resolve an unexpected error message is OK, but using another classmate’s work (e.g. screen captures, etc.) as your own is NOT ok, regardless of whether or not they provide consent for the use of their materials. (Note: There are many other acceptable/unacceptable actions than those exemplified here.) If you have any questions or concerns about acceptable/unacceptable actions, ask your instructor for clarification/permission.
  - b. Do NOT leave any of your work saved to the lab computers, which use class accounts and are not secure, and do NOT forget to take your portable memory device with you when you leave. Failure to make your work inaccessible to other students presents data security and academic integrity concerns.
    - i. Regardless of the means of access, if another student accesses your work and uses it as their own, both of you may receive zeros for the assignment and both of you may be held responsible for academic misconduct.
    - ii. If you leave your work (for any assignment, in part or on whole) on the lab computer or on a forgotten portable memory device and if an instructor or TA discovers this work, you will be penalized on each assignment that you made accessible to others by leaving your work unsecured. The severity of the penalty will be determined at the instructor’s discretion. Additionally, any files saved on the lab computers will be deleted so that they will not be available to anyone else. (Files whose owners cannot be determined will also be deleted.)
    - iii. Do your part to promote a culture of academic integrity:

1. If you discover work that was left on the lab computers by another student, do not use the files. Please delete the files so that they will not be available to you or anyone else. (You may also delete files whose owners cannot be determined.)
  2. If you discover a forgotten portable memory device, do not use the files stored on the device, and please do not allow the device to sit around the classroom unattended. Please give the device to your instructor, who will attempt to identify the owner and keep the device safe until it is returned to its owner. Any devices left unclaimed by the date/time grades are due for the current semester will become property of the instructor.
  3. If you suspect another student of suspicious behavior, please notify your instructor via a private email message.
- c. All open-ended responses to questions, prompts, etc. must be written entirely, nearly entirely, or at least in majority using your own words. Use credible sources, and cite all sources, including those only referenced, those indirectly paraphrased, and those directly quoted, being sure to use quotation marks to identify excerpts from these credible sources. This expectation to cite all of your sources also extends to the textbook, the lab instructions, lecture slides, other course materials, online resources, etc. Additionally, ensure that your work is free from spelling and grammatical errors. Such errors may be penalized at the discretion of the instructor/TA.

### **Classroom and Computers:**

To access the computers in Derby 0135 and 0140, you may use the following login information:

- Username: G5210
- Password: Geog-5210AU18

To access the internet, you need to visit the following website and login:

<https://nauth1.auth.infosec.ohio-state.edu>

If you need to return to the computer lab outside of class time, consider whether you are returning during or before/after regular business hours (Monday – Friday, 8am – 5pm)

- During regular business hours,
  - Be aware that there may be a class in session, and please avoid interrupting classes that are in session.
  - If there is a class in session, check the other computer lab across the hall. Derby 135 and 140 have the same software.
- Before/after regular business hours,
  - Please be aware that the building is usually locked at night, over weekends, and on holidays, so be sure to plan accordingly.
  - If you need more exact information about building hours/availability, please ask the staff in the geography department's main office in Derby 1036.

- You may need to scan your BuckID to access Derby 135 and 140, so be sure to take it with you.
- The card scanners are sometimes unreliable. You may need to swipe more than once, and you may need to wait a second or two after swiping to open the door, giving the scanner a chance to unlock the door.
- If you have problems accessing Derby 135 and 140 with your BuckID, please notify the office staff in Derby 1036
- Warning: Do NOT lock yourself out of the classroom or the building! It is not the responsibility of the instructor or TA to give you access to the building or the classroom outside of class time.

If you would like to check the schedules for Derby 135 and 140, you can check the Room Matrix: [https://delegated.osu.edu/psp/csosuda\\_1/EMPLOYEE/CAMP/c/OSR\\_CUSTOM\\_MENU.OSR\\_ROOM\\_MATRIX.GBL](https://delegated.osu.edu/psp/csosuda_1/EMPLOYEE/CAMP/c/OSR_CUSTOM_MENU.OSR_ROOM_MATRIX.GBL)

1. Enter DB0135 for Derby 135 or DB0140 for Derby 140.
2. Select the date under “Show Week of”.
3. Click “Refresh Calendar”.

You will be able to see when the room is occupied and when the room is available.

### **Software:**

The software that you will need for this course is already available on the computers in Derby Hall 135 and 140, and you are NOT required to download the software your own computer. However, information on accessing ArcGIS Pro and QGIS on your own computer is provided here.

- 1) *ArcGIS Pro*. This software is a proprietary software from Esri and is typically for cost. However, because of OSU’s site license, you will be able to access ArcGIS Pro this semester at no additional cost to you.

Please note that ArcGIS Pro only runs on certain Windows operating systems, so if you only have access to a computer with a Mac operating system or other non-Windows operating system, you should NOT request an ArcGIS Pro license and will have to use the computers in Derby Hall 135 and 140 to complete your course assignments.

To request an ArcGIS Pro license, you will need to read and complete the [Request for ArcGIS Pro License Form](#). After you submit this form, you will receive a receipt indicating that you submitted this form, but you will NOT receive a license immediately. It may take several days before you receive an email indicating that you have a license to use ArcGIS Pro, so plan accordingly.

Please note that if you choose to install ArcGIS Pro onto your personal machine, your instructor and TA are NOT responsible for answering your installation-related question.

- For licensing issues, email OSU’s ESRI Support at [esri-support@osu.edu](mailto:esri-support@osu.edu).



- For installation issues, call ESRI's Customer Support at 1 (888) 377-4575.
- 2) *QGIS*. This software is free and open source and can be obtained by visiting <http://qgis.org/en/site/>. Unlike ArcGIS Pro, QGIS can operate on the Mac operating system and other operating systems.

Please note that if you choose to install QGIS onto your personal machine, your instructor and TA are NOT responsible for answering your installation-related questions. You will need to troubleshoot such issues yourself.

*ArcGIS Online*. Although you cannot use ArcGIS Online in lieu of the desktop software, you may still find ArcGIS Online fun to explore! You can use your OSU account credentials to log onto ArcGIS Online. You can read more about this here: <https://cura.osu.edu/agol>.

**Disclaimer:** This course syllabus provides a general plan for the course; deviations may be necessary. Any changes will be announced by the instructor with as much advance notice as possible.