Term Information

Effective Term   Autumn 2026

General Information

Course Bulletin Listing/Subject Area   Geography
Fiscal Unit/Academic Org   Geography - D0733
College/Academic Group   Arts and Sciences
Level/Career   Undergraduate
Course Number/Catalog   3360
Course Title   Geospatial Mapping for Aviation
Transcript Abbreviation   Aviation Mapping
Course Description   Introduces the principles and applications of geospatial analysis in air transportation. Students learn to apply GIS tools and aviation datasets to examine issues related to airport siting, climate risk, and air service development. Emphasizing spatial reasoning and data interpretation, the course connects technical analysis with economic, social, and environmental dimensions of aviation planning.
Semester Credit Hours/Units   Fixed: 3

Offering Information

Length Of Course   14 Week, 12 Week
Flexibly Scheduled Course   Never
Does any section of this course have a distance No
education component?
Grading Basis   Letter Grade
Repeatable   No
Course Components   Lecture
Grade Roster Component   Lecture
Credit Available by Exam   No
Admission Condition Course   No
Off Campus   Never
Campus of Offering   Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites   Prereq: 3350 and 2400.01 or 2400.02.
Exclusions
Electronically Enforced   Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code   45.0701
Subsidy Level   Baccalaureate Course
Intended Rank   Junior, Senior

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes	• Strengthen students' ability to design and apply geospatial approaches to aviation geography–related issues • Develop students' capacity to connect and present empirical analysis with broader environmental, social, and economic considerations in aviation
Content Topic List	• Understanding Aviation Systems • Introductory Aviation GIS: Concepts and Applications • Geospatial Data and Methods in Aviation • Airport Accessibility • Environmental and Spatial Analysis • Emerging Trends in Aviation
Sought Concurrence	Yes

Attachments

- GEOG 3360_Syllabus - Geospatial Mapping for Aviation_FINAL.pdf: GEOG 3360_Syllabus

  (Syllabus. Owner: Godfrey,Ryan B)

- Air Transportation_Curriculum Map_Pre-Major_Revised 11.17.2025.pdf: AIRTRAN-BA_Curriculum Map

  (Other Supporting Documentation. Owner: Godfrey,Ryan B)

- GEOG 3360_Concurrence_Request_Form_Approved_11.17.2025.pdf: CAS_Concurrence_11.17.2025

  (Concurrence. Owner: Godfrey,Ryan B)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Godfrey,Ryan B	11/17/2025 07:31 PM	Submitted for Approval
Approved	Houser,Jana Bryn	11/18/2025 12:14 PM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	11/24/2025 09:21 PM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Neff,Jennifer Vankeerbergen,Bernadette Chantal Steele,Rachel Lea	11/24/2025 09:21 PM	ASCCAO Approval

SYLLABUS
GEOG 3360

GEOSPATIAL MAPPING FOR AVIATION

Autumn 2026 (full term)
3 credit hours
In person, no remote option

Day: T/TR
Time: TBD
Location: TBD

COURSE OVERVIEW

Instructor

Name: Sen Wang, PhD

Email: wang.18872@osu.edu

Office location: Derby Hall 1105

Office hours: 10-11 pm Monday/Wednesday, 3-5 Friday

Preferred means of communication:

- My preferred method of communication for questions is during office hours. I can also answer questions by email, but please don't send me essay-like questions over email. Come to office hours with the longer, more difficult questions.
- My class-wide communications will be sent via email. I will also post announcements on Carmen.

Teaching Assistant

Name: TBD

Email: TBD

Office location: TBD

Office hours: TBD

Prerequisites

- GEOG 2400.01 or 2400.02: Economic and Social Geography
- GEOG 3350: Aviation Geography

Course Description

This undergraduate course introduces students to the principles and practices of geospatial analysis in aviation contexts. Students will learn to work with aviation-specific geospatial datasets and build geospatial analytical skills. Rooted in the perspectives of economic, social, and environmental geography, the course covers foundational geospatial topics, such as airport siting and zoning evaluation, obstacle and terrain modeling, and airport development business analysis. Through guided lab exercises, students engage in step-by-step workflows designed to build proficiency in both aviation spatial reasoning and technical execution. Students will also examine how geospatial tools inform aviation governance, environmental concerns, and airport planning and development. Students are required to complete GEOG

3350 Aviation Geography and GEOG 2400 Economic and Social Geography before taking this course.

This course engages students in empirical analysis in the field of aviation geography, providing them with the tools that they need to use to analyze specific problems. The goals of this course are as follows:
(1) Encourage students to critically engage with geographic problems and challenges facing aviation
(2) Strengthen students' ability to design and apply geospatial approaches to aviation geography–related issues
(3) Develop students' capacity to connect empirical analysis with broader environmental, social, and economic considerations in aviation
(4) Foster effective communication of geospatial findings through maps, reports, and presentations tailored to academic and professional audiences.

Course learning outcomes

By the end of this course, students should successfully be able to:
(1) Evaluate aviation operations and development projects by assessing their environmental, social, and economic trade-offs through a geographic dimension
(2) Analyze aviation-related spatial data using GIS and design geospatial solutions to given aviation geography-related challenges
(3) Synthesize technical analyses into actionable recommendations for aviation decision-makers

HOW THIS COURSE WORKS

Mode of delivery: This course is **100% in person**. All lectures and office hours will be held on campus. If I get sick, and coming to campus is not an option, I will post a Zoom-based video lecture on Carmen in place of meeting as a group. Credit hours and work expectations: This is a 3-credit-hour course. According to Ohio State policy (go.osu.edu/credithours), students should expect around 3 hours per week spent on direct instruction (instructor content and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average.

COURSE MATERIALS AND TECHNOLOGIES

Textbooks

Required

Arbuckle, G. (2025). *Fundamentals of global air transport geography*. Taylor & Francis.

Along with the textbook, we will be reading **peer-reviewed journal articles and/or industry reports**. Some weeks have more readings than others. I will upload all the readings to the Carmen website. I will discuss the readings in my lectures so that you have a clear idea of the relationship between the readings and the lecture material.

Course technology

Technology support

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at ocio.osu.edu/help/hours, and support for urgent issues is available 24/7.

- **Self-Service and Chat support:** ocio.osu.edu/help
- **Phone:** 614-688-4357(HELP)
- **Email:** servicedesk@osu.edu
- **TDD:** 614-688-8743

Technology skills needed for this course

- Basic computer and web-browsing skills
- Navigating Carmen (go.osu.edu/canvasstudent)

Required equipment

- Computer: current Mac (macOS) or PC (Windows 10) with high-speed internet connection
- Other: a mobile device (smartphone or tablet) to use for BuckeyePass authentication

Required software

- ArcGIS Pro/Online: All Ohio State students can access ArcGIS Online for free and use ArcGIS Pro in designated classrooms.
- Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Full instructions for downloading and installation can be found at go.osu.edu/office365help.

Carmen access

You will need to use BuckeyePass (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you can connect to Carmen at all times, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass - Adding a Device help article for step-by-step instructions (go.osu.edu/add-device).
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click **Enter a Passcode** and then click the **Text me new codes** button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- Download the Duo Mobile application (go.osu.edu/install-duo) to all of your registered devices for the ability to generate one-time codes if you lose cell, data, or Wi-Fi service

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357(HELP), and the IT support staff will work out a solution with you.

GRADING SCALE

93–100: A	An "A" grade indicates **outstanding performance** in the class, in comparison with other students.
90–92.9: A-	An "A-" grade indicates **very good performance** in the class, in comparison with other students.
87–89.9: B+	A "B+", "B", and "B-" grade indicates **above-average performance** in the class, in comparison with other students. Above-average students will be assigned +/- in comparison with other above-average students.
83–86.9: B	
80–82.9: B-	
77–79.9: C+	A "C+", "C", and "C-" grade indicates **average performance** in the class, in comparison with other students. Average students will be assigned +/- in comparison with other average students.
73–76.9: C	
70–72.9: C-	
67–69.9: D+	A "D+" and "D" grade indicates **low but acceptable performance** in the class, in comparison with other students. D-range students will be assigned + in comparison with other average students.
60–66.9: D	
Below 60: E	An "E" grade indicates that the student has not successfully satisfied the course requirements.

The above qualitative language on grades is adopted from
https://trustees.osu.edu/index.php?q=rules/university-rules/chapter-3335-8-instruction.html

GRADING RUBRIC

ASSIGNMENT CATEGORY	PERCENTAGE
Attendance	10
Carmen discussions	10
Assignments	25
Midterm exam	10
Final exam	10
Project & Presentation (final report + group presentation)	35 (15+15)
Total	100

Descriptions of Major Course Components

Attendance

Description: This course will include **20 attendance checks throughout the semester**, administered at random times during class sessions through short in-class poll questions using the Vevox online polling platform. Each of them is worth 0.5% of your total grade (10% in total). **To receive credit, you must complete the poll during class and upload a screenshot of your submission (with your name clearly visible) to the Carmen Canvas assignment titled "Attendance" before the class ends**. Any late submissions will not be accepted. Please do not email to ask in advance whether an attendance check will take place. You will not be penalized for documented absences due to a verifiable illness, a family emergency, jury duty, religious obligations, or military service. Appropriate documentation must be provided. All other unexcused absences will count against your attendance grade.

Discussions

Description: There will be **five peer discussions** this semester, each focused on a designated topic. These discussions are designed to help you develop critical thinking abilities and foster peer communication and learning. Each discussion is worth **10 points**, accounting for **2% of your total grade** (10% in total). Failure to complete either component will result in a 5-point deduction for that discussion. To earn full points for each discussion, you must:
- Create one original discussion thread that meets the posted requirements, and
- Provide a thoughtful response to at least one other student's post.

Assignments

Description: There will be **five assignments** throughout the semester. Each assignment builds directly on an in-class exercise and requires students to submit a 1-page highlight report that interprets their results. These reports are designed to strengthen analytical skills by connecting lecture topics with practical geospatial applications in aviation. Each assignment is worth 10 points, accounting for 5% of your total grade (25% in total).

Exams

Description: There will be a midterm exam and a final exam, each of them worth 10% of your final grade. Both exams will be administered in person during scheduled class sessions and will consist of multiple-choice and short-answer questions. Exams will be open-book, meaning you may bring and consult the assigned readings, your lecture notes, and lecture slides during the exam. No other resources or devices (including AI tools, websites, or communication with others) are permitted.

Academic integrity and collaboration: All work must be completed individually. You may not collaborate with classmates or share answers in any form. Submitting work that is not your own or using unauthorized resources will be treated as a violation of academic integrity and referred to COAM.

Late Submission Policy

Late discussions (original threads+peer reply)/assignments/exams will incur a 10% deduction for every 24 hours past the deadline. If you anticipate difficulty meeting a deadline, please email both me and the TA as soon as possible. I will waive the late penalty for a handful of reasons, for example, if you have a verifiable medical illness, a verifiable family emergency, jury duty, religious obligation,/or military service. If any of these situations apply to you, I will expect an email prior to the deadline so that we can work out an alternate due date and schedule. **If you wait until the due date has passed to contact me, I will not waive the late penalties.**

Term Project

Description: For the term project, each group will select **one U.S. commercial service airport (as defined by the** National Plan of Integrated Airport Systems; https://www.faa.gov/airports/planning_capacity/npias**)** and develop a **case study report** focused on the airport's operations and its role in air service development and planning. Detailed project requirements can be found on Carmen Canvas. **Each group must submit a single-spaced 15-page paper by the midnight on December 3rd, with the submission time-stamped via Carmen. Late submissions will not be accepted**

The project is designed to show your ability to connect course concepts with real-world examples. In your report, you should:

- Identify and describe the airport's **catchment area** (where its passengers are likely to come from).
- Highlight key **community and traveler characteristics**, such as population, income, or other factors that may shape travel demand.
- Discuss how **ground access and nearby airports** might affect travelers' choice of airport.
- Summarize the airport's **air service options** (airlines, destinations, connections) and how these compare with surrounding airports.
- Offer **practical recommendations** for how the airport could improve its services or strengthen its competitive position.
- Present your findings using a mix of **maps, figures, and written discussion**.

Topic Selection: To make sure groups cover different cases, each airport can only be chosen by one group. Sign-ups will be handled on Carmen Canvas on a **first-come, first-served** basis. If two groups request the same airport, the group that signs up first will keep it, and the other group will need to select another.

Team Communication: Efficient communication is essential for the success of this project. Each student is responsible for being actively involved in the teamwork. In the concluding section of the paper, the group must include a detailed description of each member's responsibilities throughout the project.

Grading Criteria:
- Use of Data and Visuals: Quality and clarity of visuals in supporting the analysis of airport air service development. Only self-produced figures and maps will be counted; AI-generated materials are not permitted.
- Clarity and Organization: Overall structure, coherence, and presentation of the paper.
- Creativity and Critical Thinking: Insightful discussions on how future trends may impact the airline's network.
- Grammar: Proper use of grammar, punctuation, and overall readability.
- Page: Adequate length of the paper, adhering to the 15-page requirement

Criteria	1 - Poor	2 - Fair	3 - Good	4 - Very Good	5 - Excellent
Use of Data and Visuals	No visuals or ineffective use of visuals	Few visuals (1 original map or figures)	Relevant visuals, moderately effective (3 original maps or figures)	Good use of relevant visuals, effectively supports analysis (4 original maps or figures)	Excellent use of visuals that enhance understanding (5 original maps or figures)
Clarity and Organization	Disorganized, lacks flow	Some structure, but lacks coherence	Clear structure, some areas lacking flow	Well-structured, coherent throughout	Exceptional structure, smooth flow
Creativity and Critical Thinking	Little to no creative thought, no future outlook	Some creative thinking, limited discussion on trends	Demonstrates creative thought, decent discussion on future trends	Creative thinking and strong discussion on future trends	Highly creative, deep insights into future trends
Grammar	Multiple (> 810) grammar errors, difficult to read	Frequent (<8) grammar errors,	Few grammar (<5) errors, generally readable	Minimal (< 2) grammar errors, well-written	No grammar errors, polished writing

		somewhat readable			
Page	< 6 pages	6-9 page	10-12 page	13-14 page	15 pages

Presentation

Description: Each group will have 18-20 minutes to present the term project in person. The presentation should be clear and concise, highlighting the key aspects of the paper. Presentation schedules can be found on Carmen Canvas. Each group needs to submit the presentation slides by Midnight on November 24th, time-stamped via Carmen Canvas. The late submission will not be accepted.

Criteria	1 - Poor	2 - Fair	3 - Good	4 - Very Good	5 - Excellent
Content Knowledge	Shows little understanding of the topic, many (>8) typos	Shows limited understanding, several (5-8) typos	Demonstrates good understanding, some (3-4) typos	Demonstrates solid understanding, few (1-2) typos	Demonstrates excellent understanding, no typos
Organization	Presentation is disorganized and unclear	Some organization, but difficult to follow	Organized, but lacks clarity in some areas	Well-organized and mostly clear	Exceptionally organized and easy to follow
Visual Aids	No visuals or visuals are irrelevant	Few or poorly chosen visuals	Relevant visuals used, but not integrated well	Visuals are relevant and well-integrated	Excellent use of visuals that enhance the presentation
Time Management	Less than 8 minutes	8-10 minutes	11-13 minutes	14-16 minutes	18-20 minutes

Missed presentation? Failure to present during the scheduled time will result in a zero score unless prior arrangements/notifications have been made.

COURSE SCHEDULE

Date	Topic	Tasks	Deadline
8/25/26	Course Introduction	**Readings:** Course syllabus	
8/27/26	Understanding Aviation Systems	**Readings:** *Fundamentals of Global Air Transport Geography* (pp 3-23)	
9/1/26	Understanding Aviation Systems	**Readings:** *Fundamentals of Global Air Transport Geography* (pp 187-214)	Discussion 1
9/3/26	Introductory Aviation GIS: Concepts and Applications	**Readings:** https://doi.org/10.17226/22288 (pp 3-7; 34-46) *In-class exercise: Visualize the U.S. Aviation System with FAA Enplanement Data*	
9/8/26	Geospatial Data and Methods in Aviation	**Readings:** https://doi:10.1016/j.jtrangeo.2009.12.006 (13-page)	
9/10/26	Geospatial Data and Methods in Aviation	**Readings:** https://doi.org/10.3390/ijgi11040222 (25-page)	Discussion 2
9/15/26	Natural Disaster Vulnerability Assessment	**Reading:** *Fundamentals of Global Air Transport Geography* (pp 380-403)	

Date	Topic	Readings / In-class exercise	Assignment
9/17/26	Natural Disaster Vulnerability Assessment	**Readings:** https://doi.org/10.1155/2018/4027498 (12-page) *In-class exercise: Examine how extreme weather events affect operations and resilience of US Airport*	Assignment 1: Airport vulnerability hot-spot highlights
9/22/26	Flood Risk Mapping	**Readings:** *Fundamentals of Global Air Transport Geography* (pp 101-104) NCDOTHeleneAAR.pdf (10-page)	Team signup deadline
9/24/26	Flood Risk Mapping Case Study – Commercial Aviation Airport	*In-class exercise: Explore flood risk mapping of John Glenn Columbus International Airport*	Assignment 2: Airport flood prevention highlights
9/29/26	Flood Risk Mapping Case Study – General Aviation Airport	*In-class exercise: Explore flood risk mapping of Ohio State University Airport*	
10/1/26	Project Discussion / Exam review	Discussion on the team project Midterm exam review	Airport selection (Team Project)
10/6/26	Midterm Exam	Take-home exam (1-hour limit; exam available for 12 hours)	
10/8/26	Airport Accessibility and Catchment Area Analysis	**Readings:** https://doi.org/10.17226/27424 (pp 13-20) Fundamentals of Global Air Transport Geography (pages 338-349) https://doi.org/10.1016/j.jtrangeo.2020.102916 (13-page) https//doi.org/10.1016/j.jtrangeo.2023.103790 (13-page)	
10/13/26	Airport Accessibility and Catchment Area Analysis		Discussion 3
10/15/26	Autumn Break	*No classes*	
10/20/26	Airport Accessibility and Catchment Area Analysis	**Reading:** https://doi.org/10.17226/27424 (pages 21-80)	
10/22/26	Airport Accessibility and Catchment Area Analysis	*In-class exercise: Analyze the airport's catchment area and socioeconomic context in relation to air service development*	Assignment 3: Airport air service development highlights
10/27/26	Noise Pollution Mapping	**Reading:** *Fundamentals of Global Air Transport Geography* (pages 410-433)	
10/29/26	Noise Pollution Mapping	*In-class exercise: Visualize and interpret the noise contours of San Francisco International Airport*	Assignment 4: SFO noise highlights
11/3/26	Term Project Discussion		
11/5/26	Obstacle and Terrain Analysis	**Readings:** https://doi.org/10.1371/journal.pone.0229378 (13-page) https://doi.org/10.1016/j.heliyon.2023.e18378 (12-page) *In-class exercise: Conduct a case study to identify and assess potential obstacles affecting airport operations*	Discussion 4
11/10/26	Obstacle and Terrain Analysis		Assignment 5: Airport obstacle identification highlights
11/12/26	Obstacle and Terrain Analysis		
11/17/26	Emerging Trends in Aviation and Geospatial Technologies – Unmanned Aerial Systems	**Readings:** https://doi.org/10.3390/ijgi11040222 (25-page) https://doi.org/10.3390/info15070397 (20-page) https://doi.org/10.1016/j.eng.2020.11.007 (15-page)	
11/19/26	Emerging Trends in Aviation and Geospatial Technologies – Advanced Air Mobility		Discussion 5
11/24/26	Emerging Trends in Aviation and Geospatial Technologies – Advanced Air Mobility		Presentation slides submission
11/26/26	Thanksgiving Break	*No classes*	
12/1/26	Team presentation		

12/3/26	Team presentation		
12/8/26	Team presentation		Project submission
12/10/26	Team presentation		Course Wrap-up
12/15/26	Final exam	Take-home exam (1-hour limit; exam available for 12 hours)	

Note. *The schedule is subject to future changes, and I will inform you in advance of any revisions.*

Instructor feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-4357(HELP)** at any time if you have a technical problem.)

- **Grading and feedback:** For assignments and exams, you can generally expect feedback within **7 days**.

- **Email:** I will reply to emails within **24 hours on days when class is in session at the university**. I do not check email on the weekends and after 8 pm during the weekdays.

Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- ▶ **Email communication style**: My TA and I expect proper email etiquette. This means using your osu.edu email address for communication, writing the subject of your email in the subject line, identifying which class you're taking with me, being concise, not writing in block letters, using spell check, not deleting prior communications in your reply, and ending with a signature that includes your contact information. I am also expecting that you address me and the TA formally. You can find useful information on how to communicate via email at https://onpace.osu.edu/modules/polishing-your-job-etiquette-skills/communicate-as-a-professional/e-mail-etiquette-content-area

- ▶ **Tone and civility during lecture**: I **welcome your active participation during the lectures** in the form of questions regarding the material at hand. However, because it is my responsibility to ensure that students' participation in class is orderly and respectful, **my core expectation is that students will, at all times and without any exceptions, act professionally and courteously in the classroom.**

- ▶ **Tone and civility during office hours**: Office hours are not individualized; you can expect multiple visitors. As a result, let's maintain a supportive learning community during office hours where everyone feels safe and where people can disagree amicably.

OTHER COURSE POLICIES

Artificial Intelligence and Academic Integrity

There has been a significant increase in the popularity and availability of a variety of generative artificial intelligence (AI) tools, including ChatGPT, Sudowrite, and others. These tools will help shape the future of work, research and technology, but when used in the wrong way, they can stand in conflict with academic integrity at Ohio State.

All students have important obligations under the Code of Student Conduct to complete all academic and scholarly activities with fairness and honesty. Our professional students also have the responsibility to uphold the professional and ethical standards found in their respective academic honor codes. Specifically, students are not to use unauthorized assistance in the laboratory, on field work, in scholarship, or on a course assignment unless such assistance has been authorized specifically by the course instructor. In addition, students are not to submit their work without acknowledging any word-for-word use and/or paraphrasing of writing, ideas or other work that is not your own. These requirements apply to all students undergraduate, graduate, and professional.

To maintain a culture of integrity and respect, these generative AI tools should not be used in the completion of course assignments unless an instructor for a given course specifically authorizes their use. Some instructors may approve of using generative AI tools in the academic setting for specific goals. However, these tools should be used only with the explicit and clear permission of each instructor, and then only in the ways allowed by the instructor.

Using Artificial Intelligence (AI) in this class

If you use AI tools:

- You must first **consult with me or the TA**, as well as **provide precise details on how you will use AI and to what end**, as per the rules above. If you do not consult with us, and do not receive written approval to use AI, you cannot use it.
- If you use generative AI in your work, **you must document, in detail, how and where you used it**. For example, you can use footnotes to indicate where you used AI in an assignment, in much the same way you might cite a source.
- **You are responsible for any information you submit in an assignment using generative AI, keeping in mind the points raised above about the fallibility of AI-generated information. If an AI tool generates plagiarized content, and you use it, you are responsible for the plagiarized content as per COAM.**

Copyright for instructional materials

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Intellectual Diversity

Ohio State is committed to fostering a culture of open inquiry and intellectual diversity within the classroom. This course will cover a range of information and may include discussions or debates about controversial issues, beliefs, or policies. Any such discussions and debates are intended to support understanding of the approved curriculum and relevant course objectives rather than promote any specific point of view. Students will be assessed on principles applicable to the field of study and the content covered in the course. Preparing students for citizenship includes helping them develop critical thinking skills that will allow them to reach their own conclusions regarding complex or controversial matters.

Grievances and Solving Problems

According to University Policies, if you have a problem with this class, you should seek to resolve the grievance concerning a grade or academic practice by speaking first with the instructor or professor. Then, if necessary, take your case to the department chairperson, college dean or associate dean, and to the provost, in that order. Specific procedures are outlined in Faculty Rule 3335-8-23. Grievances against graduate, research, and teaching assistants should be submitted first to the supervising instructor, then to the chairperson of the assistant's department.

Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

The Ohio State University is committed to building and maintaining a welcoming community. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Civil Rights Compliance Office (CRCO):

Online reporting form: http://civilrights.osu.edu/
Call 614-247-5838 or TTY 614-688-8605
civilrights@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Civil Rights Compliance Office to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Religious accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors, in turn, shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement and the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the Civil Rights Compliance Office.

Policy: Religious Holidays, Holy Days and Observances

Counseling and Consultation Services / Mental Health Statement

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th floor of the Younkin Success Center and 10th floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24-hour emergency help is also available through the 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

ACCESSIBILITY ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Disability Statement (with Accommodations for Illness)

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If students anticipate or experience academic barriers based on a disability (including mental health and medical conditions, whether chronic or

temporary), they should let their instructor know immediately so that they can privately discuss options. Students do not need to disclose specific information about a disability to faculty. To establish reasonable accommodations, students may be asked to register with Student Life Disability Services (see below for campus-specific contact information). After registration, students should make arrangements with their instructors as soon as possible to discuss your accommodations so that accommodations may be implemented in a timely fashion.

If students are ill and need to miss class, including if they are staying home and away from others while experiencing symptoms of viral infection or fever, they should let their instructor know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations.

slds@osu.edu
https://slds.osu.edu/
098 Baker Hall, 113 W. 12th Ave
614-292-3307 phone

Social Science Air Transportation (Pre-Major) and (BA) Curriculum Map - GEN
Department of Geography

Revised 11/3/2025 (Integration of proposed GEOG 3360 into Social Sciences Major Electives)

LEARNING GOALS
1. Students acquire and apply foundational knowledge from the introductory courses in the core of the major to explain flight performance as well as federal and international aviation laws and politices.
2. Students acquire and apply statistical skills to critically evaluate data and research findings in the literature (e.g. geospatial data).
3. Students apply quantitative skills to understand the management and operations of aviation-specific organizations such as aircraft manufacturers, airlines, airports, and the air traffic management system.
4. Students acquire knowledge about the social, political, economic, and/or physical structures - including weather and climate - of transportation systems and apply it to explain individual and organizational behaviors.
5. Students explain performance, law, regulations, and policies related to transportation systems.
6. Students comprehend the structure of industry and communications flows and are able to pinpoint sources of an remedies for administrative disagreements.
7. Studens are able to demonstrate how knowledge of advanced aircraft performance has implications for decision-making by management for airports, airlines and aviation service providers.

F= Foundational I= Intermediate A= Advanced	Cr Hrs	Learning Goals						
Aviation and Geography Pre-Major Requirements		**1**	**2**	**3**	**4**	**5**	**6**	**7**
AVIATN 2000: Intro to the Aviation Industry	3	F		F	F	F		F
AVIATN 2100: Private Pilot Fundamentals	5	F						F
GEOG 2400.01 OR GEOG 2400.02: Economic & Social Geography	3		F		F			
GEOG 3300: Transportation Security	3	I		I	I	I	I	
Aviation and Geography Core Requirements								
AVIATN 2200: Aviation Communication	3	F			F		F	F
AVIATN 2300: Aircraft Performance & Weather	3	I	I					I
AVIATN 3000: Aviation Management & Marketing	3							
AVIATN 3200: Aviation Regulations	3	I			I	I	I	
AVIATN 3300: Aviation Human Factors & Safety	3	I	I					I
AVIATN 4500: Aviation Captstone	3	A	A	A	A	A	A	A
GEOG 5300: Geography of Transportation	3	A		A	A	A	A	
GEOG 5900: Weather, Climate & Global Warming	3		A					
Professional Pilot Certification Specialization								
AVIATN 2101: Private Pilot Flight Lab I	2	F						F
AVIATN 2102: Private Pilot Flight Lab II	2	F						F
AVIATN 2501: Commercial Cross Country Flight Lab	2	F						F
AVIATN 3100: Instrument Flight Fundamentals	3	I						I
AVIATN 3101: Instrument Flight Lab	3	I						I
AVIATN 4100: Commercial Flight Operations	3	A						A
AVIATN 4101: Commercial Pilot Flight Lab	3	A						A
AVIATN 4300: Advanced Multi-Engine Operations	2	A						A
AVIATN 4301: Commercial Pilot MEL Flight Lab	2	A						A
OR								
AVIATN 5100: Flight Instruction Methodology	2	A						A
AVIATN 5101: Flight Instructor AME Flight Lab	2	A						A
Aviation Electives (non-PPC)								
AVIATN 2101: Private Pilot Flight Lab I	2	F						F
AVIATN 2102: Private Pilot Flight Lab II	2	F						F
AVIATN 2400: Fundamentals in Unmanned Aircraft Systems	3	F			F			F
AVIATN 2401: UAS Ground and Flight Operations	3	I			I			I

Course	Cr							
AVIATN 2900: Air Traffic Control Fundamentals	3	F		F	F			F
AVIATN 3193: Individual Studies in Aviation	2-5	I	I	I	I	I	I	I
AVIATN 3400: Aviation Accident Investigation	3	I	I	I	I	I	I	I
AVIATN 3600: Business & Corporate Aviation Management	3	I	I	I	I	I	I	
AVIATN 3700: Building a Diverse Workforce in Aviation	3				I		I	
AVIATN 4000: Air Transportation Analysis I	2-5	I	I	I	I	I	I	I
AVIATN 4193: Individual Studies in Aviation	3	I	I	I	I	I	I	I
AVIATN 4200: Aviation Dispatch Fundamentals	3	I				I		I
AVIATN 4201: Applied Aircraft Dispatch	3	A				A		A
AVIATN 4400: Airport Management	3	I	I	I	I	I	I	I
AVIATN 5000: Air Transportation Analysis II	3	A	A	A	A	A	A	A
AVIATN 5102: Flight Instructor AME Flight Lab	1	A						A
AVIATN 5193: Individual Studies in Aviation	2-5							
AVIATN 5200: Instrument Instruction Methodology	2	A						A
AVIATN 5201: Instrument Instruction Flight Lab	1	A						A
AVIATN 5194: Group Studies in Aviation	2-5							
Social Science Electives: Geography Electives (Requires 2 courses minimum)								
GEOG 2200.01: Mapping Our World	3		F					
GEOG 3600: Space, Power & Political Geography	3				I	I	I	
GEOG 3701: The Making of the Modern World	3				I			
GEOG 3702: Life and Death Geographies: Confronting Global Change	3				I			
GEOG 3750: Geography of North America	3				I	I	I	
GEOG 3900.01 or GEOG 3900.02: Global Climate Change: Causes & Consequences	3				I			
GEOG 5200: Cartography	3		A					
GEOG 5210: Fundamentals of GIS	3		A					
GEOG 3350: Aviation Geography (Proposed for SP2)	3	A		A	A	A	A	
GEOG 3360: Geospatial Mapping in Aviation (Proposed for AU26)	**3**			**A**	**A**	**A**		
GEOG 5230: Drone Mapping (Proposed for AU26)	**3**	**A**	**A**		**A**	**A**		
GEOG 5301: Sustainable Transportation	3				A	A		
GEOG 5700: Geography of Development	3				A			
GEOG 5802: Globalization & Environment	3				A			
Social Science Electives: SBS Electives (Choose additional courses)								
COMM 2367: Persuasive Communication	3						F	
COMM 2331: Strategic Communication Principles	3				F		F	
COMM 3331: Communication in Decision Making	3					I	I	
COMM 3545: Human-Computer Interaction	3				I			
COMM 2540: Intro to Communication Technology	3						F	
COMM 3325: Intro to Organizational Communication	3				I		I	
COMM 3668: Intercultural Communication	3				F			
COMM 3443: Global Media	3				I			
COMM 3330: Communication & Conflict Management	3				I		I	
COMM 3597.02: Media & Terrorism	3				I			
INTSTD 4800: Cultural Diplomacy	3				I			
INTSTD 5800: International Law	3				A	A	A	
INTSTD 5195: Selected Topics in International Studies	3				A			
INTSTD 3701: Intro to Homeland Security	3				I		I	
POLITSC 2150: Voters & Elections	3				F			
INTSTD 4700: Terror and Terrorism	3				I		I	
POLITSC 3115: Intro to the Policy Process	3				I		I	
POLITSC 4200: Politics of Modern Democracies	3				I			
POLITSC 4318: Politics of International Terrorism	3				I		I	
PSYCH 4525: Psychology of Personal Security	3				I			
SOC 2309: Intro to Law & Society	3				F	F		

Concurrence Form

The Ohio State University
College of Arts and Sciences Concurrence Form

The purpose of this form is to provide a simple system of obtaining departmental reactions to course requests.
An e-mail may be substituted for this form.

An academic unit initiating a request should complete Section A of this form and send a copy of the form, course request, and syllabus to each of the academic units that might have related interests in the course. Units should be allowed two weeks to respond to requests for concurrence.

Academic units receiving this form should respond to Section B and return the form to the initiating unit. Overlap of course content and other problems should be resolved by the academic units before this form and all other accompanying documentation may be forwarded to the College of Arts and Sciences and the Office of Academic Affairs.

A. Proposal to review

Initiating Academic Unit   Course Number   Course Title

Type of Proposal (New, Change, Withdrawal, or other)   Date request sent

---

Academic Unit Asked to Review   Date response needed

B. Response from the Academic Unit reviewing
Response: include a reaction to the proposal, including a statement of support or non-support (continued on the back of this form or a separate sheet, if necessary).

Signatures

---

1. Name   Position   Unit   Date

---

2. Name   Position   Unit   Date

---

3. Name   Position   Unit   Date

Revised 5/27/14

From:	Stringer, Blake
Sent:	Monday, November 17, 2025 5:43 PM
To:	Houser, Jana; Coleman, Mat; Godfrey, Ryan
Subject:	Re: Geog 3360 Concurrence

Hi Jana,

My apologies; I thought I replied. We don't see a conflict. Thanks.
Blake

THE OHIO STATE UNIVERSITY

D. Blake Stringer, Ph.D.
Director, **Center for Aviation Studies**
Professor, Department of Mechanical & Aerospace Engineering
NetJets Designated Chair of Aviation Modernization
228B Bolz Hall, 2036 Neil Avenue, Columbus, OH 43210
stringer.97@osu.edu, aviation.osu.edu
Administrative Assistant: Brooke Webb, webb.661@osu.edu

From: Houser, Jana <houser.262@osu.edu>
Sent: Monday, November 17, 2025 3:40 PM
To: Stringer, Blake <stringer.97@osu.edu>; Coleman, Mat <coleman.373@osu.edu>; Godfrey, Ryan <godfrey.117@osu.edu>
Subject: Geog 3360 Concurrence

Hi Blake,

Just following up here with the request for concurrence for Geog 3360.

Could you please let me know if CAS is good with this proposed course?

Thanks!

-Jana

Dr. Jana Houser

Director of Undergraduate Studies
Associate professor of meteorology.
Atmospheric sciences program.
Department of geography.
The Ohio State University
Columbus, OH

From: Houser, Jana <houser.262@osu.edu>
Sent: Tuesday, November 4, 2025 4:53:10 PM
To: Stringer, Blake <stringer.97@osu.edu>; Coleman, Mat <coleman.373@osu.edu>; Howat, Ian <howat.4@osu.edu>
Cc: Bolin, Mark <bolin.98@osu.edu>; Godfrey, Ryan <godfrey.117@osu.edu>
Subject: Re: Drone Course Syllabus for Review

Hi All,

In line with Mat's request for concurrence, we have another course that Sen has created that we'd like to get your approval for. GEOG 3360 Geospatial Mapping for Aviation. The syllabus is attached here.

Please look it over when you have a chance and let us know if you have any concerns.

Thanks!

-Jana

Dr. Jana Houser
Director of Undergraduate Studies
Associate Professor of Meteorology
Atmospheric Sciences Program
Department of Geography
The Ohio State University
Columbus, OH

From: Stringer, Blake <stringer.97@osu.edu>
Sent: Tuesday, November 4, 2025 12:24 PM
To: Coleman, Mat <coleman.373@osu.edu>; Howat, Ian <howat.4@osu.edu>
Cc: Houser, Jana <houser.262@osu.edu>; Bolin, Mark <bolin.98@osu.edu>
Subject: Re: Drone Course Syllabus for Review

Mat,

We don't see any conflicts and are happy to concur.

There's an opportunity to advertise AVIATN 2400: Fundamentals in Uncrewed Aircraft Systems that provides a path for students to earn their Part 107 Remote Operator's License. I'm not sure if you'd want that to be a pre-req for the course, which we are happy to oblige. But at the very least, we'd appreciate a mentioning in the course syllabus that AVIATN 2400 is the preferred avenue for certification.

Fly Bucks!
Blake

THE OHIO STATE UNIVERSITY

D. Blake Stringer, Ph.D.
Director, **Center for Aviation Studies**
Professor, Department of Mechanical & Aerospace Engineering
NetJets Designated Chair of Aviation Modernization
228B Bolz Hall, 2036 Neil Avenue, Columbus, OH 43210
stringer.97@osu.edu, aviation.osu.edu
Administrative Assistant: Brooke Webb, webb.661@osu.edu

From: Coleman, Mat <coleman.373@osu.edu>
Sent: Friday, October 31, 2025 3:25 PM
To: Howat, Ian <howat.4@osu.edu>; Stringer, Blake <stringer.97@osu.edu>
Cc: Houser, Jana <houser.262@osu.edu>
Subject: FW: Drone Course Syllabus for Review

Ian, Blake—

I'm seeking concurrence for a new drone-based remote sensing course that I want to get in front of ASCC this semester. Syllabus attached. It was developed by Sen.

Could you guys give this a look over and let me know if you'd be willing to concur? I would send your emails to ASCC as proof of concurrence, along with the syllabus.

Comments welcome, of course!

Happy Halloween,
Mat

Cc Jana

THE OHIO STATE UNIVERSITY

Mat Coleman
Department Chair, Professor
Department of Geography, College of Social and Behavioral Sciences
http://u.osu.edu/coleman.373/

1036B Derby Hall (main office suite)

154 N. Oval Mall
Columbus, OH 43210-1361

From: Wang, Sen <wang.18872@osu.edu>
Date: Friday, October 31, 2025 at 1:16 PM
To: Coleman, Mat <coleman.373@osu.edu>
Cc: Tjoelker, Adam <tjoelker.4@buckeyemail.osu.edu>
Subject: Drone Course Syllabus for Review

Hi, Mat,

Attached is the syllabus for the Drone course. Thank you for your time in reviewing it. Please let me know any feedback or suggestions you may have.

Happy Halloween and have a great weekend!

Best regards,

Sen

Sen Wang
Assistant Professor
College of Arts and Sciences
Department of Geography
Email: wang.18872@osu.edu