# HumaniTech

Vertically Integrated Project (VIP) Course

Lecture: W 2:00pm – 2:50pm, Klaus Advanced Computing Building 1440

Lab Location (optional workspace): Love Manufacturing Building 224

Instructor Office Hours: Schedule as needed via email -- cshriver7@gatech.edu

TA Office Hours: Schedule as needed via email -- scallahan30@gatech.edu

Teams Channel: <u>VIP HumaniTech General Channel</u>

Instructor	Email
Primary: Cassie Shriver (she/her)	cshriver7@gatech.edu
TA: Sammy Callahan	scallahan30@gatech.edu
Course Advisor: Robert Wallace	Robert.Wallace@gtri.gatech.edu

# **Course Description**

Vertically Integrated Projects (VIP) courses are designed to allow students from multiple disciplines to work in teams on projects for several semesters. This semester, we are merging the GaTech4Wildlife and HumaniTech VIP courses. Incoming students will be joining returning students in one of five project teams developing interdisciplinary technology solutions that impact human health and well-being. While some projects focus on the human health industry and others involve interactions with wildlife, all projects will focus on the idea of human-centered design and how to develop solutions that are ethical, feasible, and effective. Students will work to advance their specific projects towards successful deliverables while developing skills to critically evaluate their own and other projects in the field.

## **Course Goals**

Upon successful completion of this course, you will be able to:

- 1. Identify how your (and others') majors can impact technology for human health
- 2. Design, implement, and evaluate ethical, feasible, and effective technology solutions
- 3. Document scientific methodology, ideation, and progress
- 4. Review and critique scientific literature related to your project scope
- 5. Communicate with leaders in your project field

# **Course Expectations & Guidelines**

This course will require you to work with teammates from different majors, connect with external collaborators, and interact with guest speakers. It is expected that you be respectful and considerate of new backgrounds and perspectives. Challenge yourself to consider how your skills and major-specific knowledge can be applied to a variety of different situations. Simultaneously, be willing to step outside of your comfort zone to explore how ideas from different fields may enhance the success of your project. Active participation within the classroom and in your team meetings is crucial to your learning and advancing your project towards successful deliverables. This course utilizes a Microsoft Teams channel for communication with instructors. The link to join the Teams pages is provided here.

## **Attendance and Participation**

Attendance and participation are required to succeed in this course, both within the classroom and with your teams outside of the scheduled lecture time. It is expected that all members of the class will be in attendance for midterm and final presentations. If you will miss class for any reason, please let the instructor know. College is stressful and life happens, so just communicate with us so we know you are okay and can make plans to accommodate any substantial absences. While we may not be able to record all lectures, slides will be posted at the end of class for students to review.

## COVID-19

## **Collaboration and Group Work**

This is a team-based course, with many different assignments and activities based on collaborations with your groups. I encourage and insist you work closely with your teams for presentations and reports. However, it is important that each student have their own, individual notebook and should not copy or cheat off their peers' notebooks. Each person's notebook will be unique to them, reflecting their thought process and contributions. It is expected for group members to miss occasional meetings both in and outside of class, but you are responsible for communicating those absences with your team.

## **Extensions and Late Assignments**

Most of the assignments in this class are based on participation/completion and are not designed to be stressors to your already busy lives. If you are unable to complete an assignment on time, please communicate with us! To prevent the TA from being overwhelmed with grading at the end of the semester, we will defer to taking off 5% per day that an assignment is late.

#### Student Use of Mobile Devices in the Classroom

Cells phones can and should be used in the classroom to assist with research, participate in class activities, message contacts, skype missing group members, etc. However, during all presentations, it is expected that you be attentive and respectful to the presenters.

# **Course Requirements & Grading**

The different components of this VIP course and corresponding grade breakdowns are listed in the table below. You will also receive comments from the TA for each submitted assignment.

Assignment	Percent of Total Grade
Team Goals Worksheet	5%
Annotated Bibliography	5%
Case Study	10%
Individual Presentation	5%
Midterm Presentation	10%
Midterm Presentation Peer Feedback	5%
Final Presentation	15%
Final Report	15%
Notebook (Midterm + Final)	20%
Peer Evaluations (Midterm + Final)	10%
Extra Presentation	Required to pass the class
	(only for 2- and 3- credit hour students)

## **Team Goals Worksheet (Group):**

This is a quick worksheet to ensure new group members are brought up to speed. You will answer a few questions about the project, confirm a weekly meeting time, list where all project files can be accessed, and determine goals you are aiming to achieve throughout the semester.

## **Annotated Bibliography (Individual):**

This assignment is designed to help you build a scientific foundation for your project and expose you to literature that may enhance how you think about your goals and methods, particularly in an interdisciplinary nature. Students will identify 3, peer-reviewed sources (ideally related to their major) and write a short paragraph describing (where applicable) the questions/hypotheses, brief overview of methods, findings, significance, and any other information that would be useful in determining where this source should be consulted again or cited when writing a report. The final deliverable will be the 3 sources cited in a consistent format with corresponding paragraphs beneath each citation.

## **Case Study (Team):**

The goal of this assignment is to help teams think about their projects by researching an existing solution similar to theirs. Each team must find an existing or past project within their team's topic area and answer the following questions about the project you find: 1) How is this project/intervention incorporating human-centered design? 2) Was this project/intervention co-created with the communities impacted? How did they work with the communities? 3) What resources or funding were needed for this project? 4) What are some of the challenges or success that this project/intervention had? 5) Are there any take-aways that your team can use in your own project?

#### **Individual Presentation:**

Each student will select a topic of interest to give a 5-minute presentation on in class. The topic does not have to be directly related to your project but should relate to the themes of the class. Discuss how your topic is a good or bad example of human-centered or human-wildlife-centered design and any surrounding controversies.

#### **Presentations (Team):**

At the midpoint and end of the semester, each team will give a 10-minute presentation on their progress for their project. Each team member is expected to contribute to the work being presented and the slides. At the end of each presentation, instructors and peers will be able to ask questions.

#### **Midterm Presentation Peer Feedback (Individual):**

This is a quick form that can be completed while other groups are giving their midterm presentations or immediately afterwards. Provide constructive comments on other teams' work and presentations, including any questions or suggestions you have for future steps.

#### **Final Report (Team):**

The goal of the final report is to provide sufficient documentation for future students to easily continue your work. This report should have the same content as your final presentation slides with detailed descriptions of the specific accomplishments made during the semester, how to access necessary files or contacts, and suggestions on how to move forward in the next semester. There are examples of final reports in the files portion of Canvas.

#### **Notebooks (Individual):**

The notebooks can be completed in either an electronic (word, latex, etc.) or handwritten format. The notebook should follow the VIP guidelines listed here: <a href="https://www.vip.gatech.edu/vip-notebooks">https://www.vip.gatech.edu/vip-notebooks</a>. An example e-notebook is also included in the files section on canvas. You will turn in your notebook mid-

semester for the TA to provide a temporary grade and comments on potential improvements. This grade can be improved by making the listed changes before the end of the semester. While there is no section for in-class participation as a grade, it will be factored into the grade for the notebooks. You should be documenting what occurs during class in your notebooks, as well as what occurs in team meetings outside of class and your specific contributions.

## **Peer Evaluations (Individual):**

Peer evaluations are completed via the VIP website. You will receive email reminders when the evaluations have opened, and you must complete them during the specified time at both the midpoint and end of the semester.

## **Extra Presentation (Individual or Group, for 2-Credit Hour Students Only):**

You must complete an additional presentation related to your VIP project. This can be accomplished in a variety of formats and does not have to occur within the classroom. There will be several opportunities throughout the semester, and you may ask the instructor if you come across another opportunity you think satisfies the requirements. To receive credit, please use the Canvas assignment to briefly state what the presentation was, when and where it took place, and how you came across the opportunity.

## **Grading Scale**

Your final grade will be assigned as a letter grade according to the following scale:

A: Excellent 90-100%
B: Good 80-89%
C: Satisfactory 70-79%
D: Passing 60-69%
F: Failure 0-59%

At Georgia Tech, grades are awarded on a scaled of A-F with no +/- grades permitted.

## **Course Schedule**

Below is the preliminary course schedule (subject to change).

Week:	Date:	Topic:	Deliverables Due Before Class:
1	Jan 11	Instructor introductions, course overview, human-centered design	
2	Jan 18	Overview of projects and goals, Q&A, case study examples	Project slide (returning members only), instructor expectations survey (optional)
3	Jan 25	Research/professional/sci-comm skills, project exploration	Team goals worksheet, meet as a team at least once
4	Feb 1	Research/professional/sci-comm skills, project narrowing	Annotated bibliography, resume review (optional)
5	Feb 8	Individual Presentations	
6	Feb 15	Guest speaker 1	Case study assignment
7	Feb 22	Midterm presentations	Midterm presentation slides,

			midterm peer evaluations
8	Mar 1	Mid-semester reflection	Mid-semester notebook, midterm presentation peer feedback
9	Mar 8	Guest speaker 2	
11	Mar 15	Individual presentations	
12	Mar 22	Spring break (no class)	
13	Mar 29	Guest speaker 3	
14	Apr 5	Individual presentations	
15	Apr 12	Individual presentations, semester recap	
16	Apr 19	Final presentations	Final presentation slides
17	Apr 26	Finals week (no class)	Final peer evaluations, final notebook, final report, CIOS/TAOS survey, extra presentation ( <i>if required</i> )

## **Additional Course Material**

## **Academic Integrity**

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. For information on Georgia Tech's Academic Honor Code and Code of Conduct, please visit <a href="https://catalog.gatech.edu/policies/honor-code/">https://catalog.gatech.edu/policies/honor-code/</a> and <a href="http://www.catalog.gatech.edu/rules/18/">https://catalog.gatech.edu/policies/honor-code/</a> and <a href="http://www.catalog.gatech.edu/rules/18/">https://catalog.gatech.edu/policies/honor-code/</a> and <a href="https://www.catalog.gatech.edu/rules/18/">https://catalog.gatech.edu/policies/honor-code/</a> and <a href="https://www.catalog.gatech.edu/rules/18/">https://catalog.gatech.edu/policies/honor-code/</a> and <a href="https://www.catalog.gatech.edu/rules/18/">https://www.catalog.gatech.edu/rules/18/</a>. Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

## **Student-Faculty Expectations Agreement**

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. Please see <a href="http://www.catalog.gatech.edu/rules/22/">http://www.catalog.gatech.edu/rules/22/</a> for an articulation of some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. I encourage you to remain committed to the ideals of Georgia Tech while in this class.

## **Statement of Inclusivity**

As a member of the Georgia Tech community, I am committed to creating a learning environment in which all my students feel safe and included. Because we are individuals with varying needs, I am reliant on your feedback to achieve this goal. To that end, I invite you to enter into dialogue with me about the things I can stop, start, and continue doing to make my classroom an environment in which every student feels valued and can engage actively in our learning community. It is important that this classroom and office hours/meetings are a Safe Space for all communities.



#### **Statement on Student Wellness**

Take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, getting enough sleep, and taking some time to relax. This will help you achieve your goals and cope with stress. All of us benefit from support during times of struggle. There are many helpful resources available on campus, and an important part of the college experience is learning how to ask for help. If you or anyone you know is experiencing academic stress, difficult life events, or is feeling anxiety or depression, I will personally talk with you and walk you to the university resources that can help.

#### **Accommodations for Students with Disabilities**

If you are a student with learning needs that require special accommodations, contact the Office of Disability Services at (404)-894-2563 or <a href="http://disabilityservices.gatech.edu/">http://disabilityservices.gatech.edu/</a>, as soon as possible, to make an appointment to discuss your needs and to obtain an accommodations letter. Please also email me as soon as possible to set up a time to discuss your learning needs.