HumaniTech

Vertically Integrated Project (VIP) Course

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

**Lab Location** (workspace)**:** Love Manufacturing Building 224

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

**TA Office Hours:** W 2:00-3:00pm (right after class)

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| **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 a variety of ways that 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 communications. The link to join the Teams pages is provided [here.](https://teams.microsoft.com/l/team/19%3A02f643ff1f774b469fa77a4e136efb0d%40thread.tacv2/conversations?groupId=f9e47c7f-87da-4e9e-ab9a-65e2a4d266ea&tenantId=482198bb-ae7b-4b25-8b7a-6d7f32faa083)

**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**

All students are encouraged to wear masks in class. Students are expected to be familiar with and abide by the Institute guidelines, information, and updates related to COVID-19. Find campus operational updates, Frequently Asked Questions, and details on campus surveillance testing and vaccine appointments here: <https://health.gatech.edu/coronavirus/institute-operations>.

**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. If you forget to bring your notebook to class, discuss with the Teaching Assistant to find a time to bring the notebook. If you miss the midterm or final presentation for an excusable reason, then a time will be set up for you to sit down share and present the information you worked on with the graduate instructor and/or faculty mentor.

**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. Rubrics for each assignment will be posted to the canvas page. You will also receive comments from the TA for each submitted assignment.

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| **Assignment**  | **Percent of Total Grade** |
| Team Goals Worksheet | 5% |
| Annotated Bibliography | 5% |
| Case Study | 10% |
| Midterm Presentation | 10% |
| Midterm Presentation Peer Reviews | 5% |
| Final Presentation | 15% |
| Final Report | 20% |
| Notebook | 20% |
| Peer Evaluations  | 10% |
| \*Extra Presentation (for 2-credit hours only) | Required to pass the class |

\*The Extra Presentation is only required if you are enrolled in 2 credit hours. There are several options throughout the semester to meet this requirement.

**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 5, peer-reviewed sources 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. This is not meant to be tedious, but to help you organize your sources when doing literature reviews and ultimately reduce the amount of time spent reviewing the same sources. The final deliverable will be the 5 sources cited in a consistent format with corresponding paragraphs beneath each citation.

**Case Study (Team):** This assignment is designed to help you more thoroughly explore related projects. Choose a [UN 17 Sustainable Global Development Goals](https://www.un.org/development/desa/disabilities/envision2030.html) that aligns with your project. Then, write a short essay explaining your chosen Sustainable Development Goal, the specific challenges associated with it, and some solutions being employed to combat these challenges. Pick one of these challenges to explore in-depth and describe the motivation, plan of action, ethics, efficacy, and any additional details of interest. At least two citations are required in a consistent format. This will be graded on grammar, relevance to your group project, and must include a discussion on how humans, specifically you, can help.

**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 on as well as the presentation slides. At the end of each presentation, instructors and peers will have the opportunity to ask questions.

**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: <https://www.vip.gatech.edu/vip-notebooks>. 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.

**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 essentially be 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.

**Peer Evaluations (Individual):** Peer evaluation 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 period.

**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. Many of the grades in this course are based off your participation in the classroom, participation in team meetings outside of class, and contributions towards your team project.

**Course Schedule**

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

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| Week: | Date: | Topic: | Deliverables Due Before Class: |
| 1 | Aug 24 | Introduction |  |
| 2 | Aug 31 | Overview of projects and goals, team Q&A, human-centered design | Project slide by 1pm (*returning members only*),Instructor expectations survey |
| 3 | Sep 7 | Project exploration, research/professional/sci-comm skills | Team goals worksheet,Meet as a team at least once |
| 4 | Sep 14 | Project narrowing, research/professional/sci-comm skills | Annotated bibliography(Optional: resume review) |
| 5 | Sep 21 | Research/professional/sci-comm skills |  |
| 6 | Sep 28 | Guest Speaker 1 | Case study assignment |
| 7 | Oct 5 | Midterm Presentations | Midterm presentations by 1pm,Mid-semester peer evaluations |
| 8 | Oct 12 | Mid-semester reflection | Midterm presentation peer feedback by 1pm,Mid-semester notebook check |
| 9 | Oct 19 | Guest Speaker 2 |  |
| 11 | Oct 26 | Meeting with teams |  |
| 12 | Nov 2 | Guest Speaker 3 |  |
| 13 | Nov 9 | Guest Speaker 4 |  |
| 14 | Nov 16 | Prep for final presentations, semester recap | Final peer evaluations, CIOS/TAOS Survey |
| **15** | **Nov 23** | **Thanksgiving Break (No Class)** |  |
| 16 | Nov 30 | Final Presentations | Final presentation slides by 1pm, Extra presentations |
| **17** | **Dec 7** | **Finals Week (No Class)** | Project Deliverables, Final Notebook Check, Final Report |

**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 <https://catalog.gatech.edu/policies/honor-code/> and <http://www.catalog.gatech.edu/rules/18/>. 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 http://www.catalog.gatech.edu/rules/22/ 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 http://disabilityservices.gatech.edu/, as soon as possible, to make an appointment to discuss your special 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.