VIP Syllabus • Spring 2027

Vertically Integrated Projects Program • vip.gatech.edu

Team Name
Chip Scale Power & Energy

Team Meetings
9:30-10:20a Thursdays
Baker Bldg. #323

Instructor
Jud Ready
jud.ready@gatech.edu
404-407-6036

Office Hours & Location
By Appointment
Baker #133

Each team will determine working times, designated as "sub-team meetings." Students are responsible for participating in their team and sub-team meetings. If you miss any meeting, you are responsible for knowing what occurred in that meeting, typically by discussing it with other team members. An excused absence does not relieve you of that responsibility.

About VIP

The Vertically-Integrated Projects (VIP) Program operates in a research and development context. Undergraduate students that join VIP teams earn academic credit for their participation in design/discovery efforts that assist faculty and graduate students with research and development issues in their areas of expertise.

The teams are:

Multidisciplinary - drawing students from all disciplines on campus;
Vertically-integrated - maintaining a mix of sophomores through PhD students each semester;
Long-term - each undergraduate student may participate in a project for up to three years and each graduate student may participate for the duration of their graduate career.

The continuity, technical depth, and disciplinary breadth of these teams are intended to:

- Provide the time and context necessary for students to learn and practice many different professional skills, make substantial contributions to the project, and experience many different roles on a large, multidisciplinary VIP team.
- Support long-term interaction between the graduate and undergraduate students on the team. The graduate students mentor the undergraduates as they work on VIP projects embedded in the graduate students' research.
- Enable the completion of large-scale projects that are of significant benefit to faculty members' research programs.

Learning Objectives

Through VIP students will:

- Learn and practice professional skills;
- Make substantial contributions to the team project;
- Experience different roles on a large, multidisciplinary team.

Team Focus

To develop nanostructured 'chip scale' power and energy storage devices for use in miniaturized sensing, communication, and energy harvesting devices.

Semester Overview

Week	Date	Activity/Event
Week 1	January 14	Introductions Overview of past work Discussion of semester goals Training Requirements & Badging
Week 2	January 21	Summary of Work of Prior Semester(s)
Week 3	January 28	Sub-team selections & mtg. times finalized
Week 4	February 4	Working Session
Week 5	February 11	Working Session
Week 6	February 18	Web-based peer-evaluations form closes at 4PM Friday this week. Late submissions are not be accepted.
Week 7	February 25	Fabrication Group Presentation Turn in VIP notebooks at team meeting for mid-term grading. Late submissions are not be accepted.
Week 8	March 4	Characterization Group Presentation
Week 9	March 11	SPRING BREAK
Week 10	March 18	Working Session
Week 11	March 25	Supercap Design Presentation
Week 12	April 1	HASP Presentation
Week 13	April 8	Working Session
Week 14	April 15	Working Session
Week 15	April 22	Final Presentation Turn in VIP notebooks at team meeting for final grading

Grading

The premise of VIP is teams working on projects. Much like a real-world team, individual members work on different aspects of the project. Team members range from freshmen through graduate students, as well as faculty members. Ranging from first-time participants to long term involvement for four or more semesters. The number of credits for which a student is enrolled is considered in grading. Zero-credit students (reserved for paid participation only) participate in the same grading process.

Your grade is based on three areas, along with three requirements. Although each student contributes in different ways, you must demonstrate achievements in all three areas below.

Rubric: Binary: Student Met or Did not Meet Standard

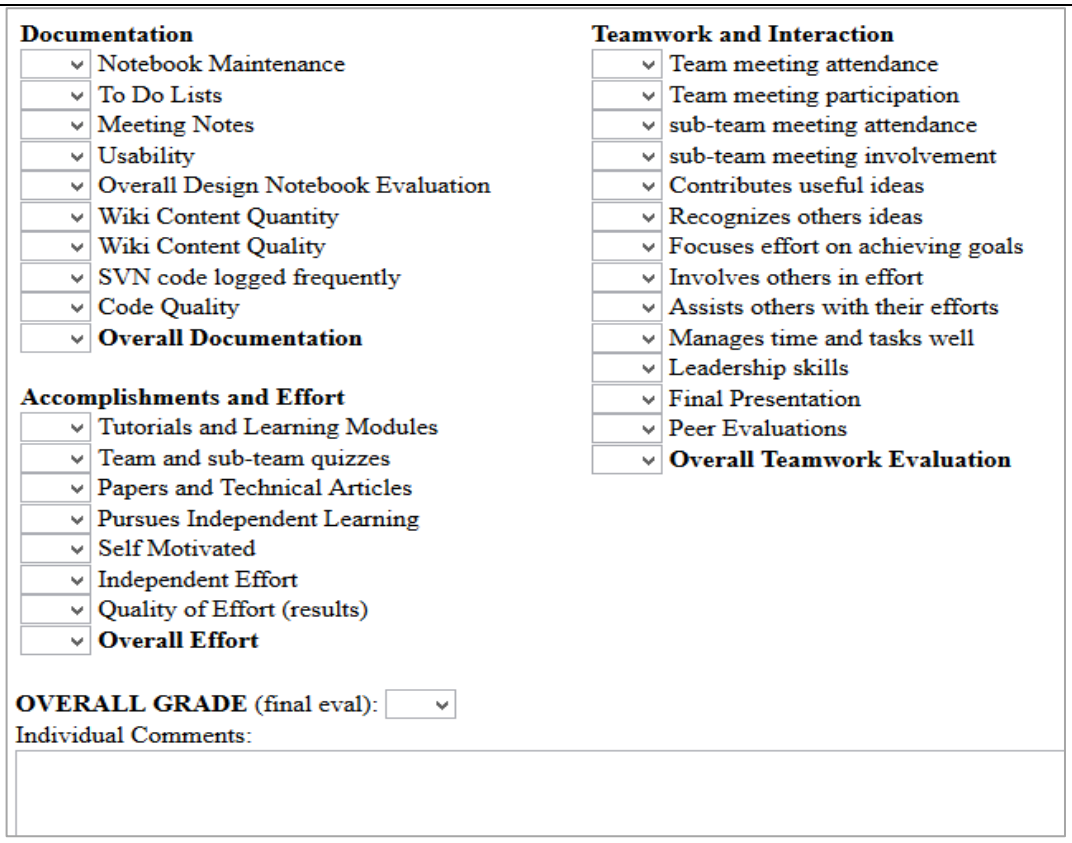
Standard Met	Area	Expectations
	Documentation (1/3 of grade)	
___	Consistent to-do lists	Leaves each meeting with work to do; checks items off list as tasks/work are completed; progress/work can be tracked over time.
___	Explanation of what was done (in individual notebook/documentation)	Sufficient explanation of work, progress, and next steps. Someone knowledgeable/skilled in the field would be able to understand decisions made, repeat what was done, and obtain the same result.
___	Reflects on what did/did not go well	Discusses what did and did not go well. **Instructors can add detail on how frequently or infrequently this should occur – is it in weekly reflections, an organic part of documentation, etc.? If you have too many items in the documentation group, this could be collapsed into "explanation of what was done" above.**
___	Team-level documentation	Team-level documentation on Box and presentations.
	Contributions (1/3 of grade)	
___	Proactive	Identifies or asks for tasks to do; does not stop working and searches for solutions when obstacles arise – checks team documentation, searches online, reaches out to teammates, etc.
___	Learning	Acquires knowledge or skills needed for the project.
___	Quality of effort	Work is timely, thorough, and accurate; Student comes to meetings prepared.
___	Appropriate level of contribution	**Considering the course level and number of credit hours**, contributions to the project were appropriate. Early-stage contributions may include obtaining skills needed to do the work.
	Teamwork (1/3 of grade)	
___	Attitude and participation	Demonstrates interest in the project; treats teammates with respect; pays attention to the people speaking during meetings; avoids distractions during meetings; participates in discussions around others' work; acknowledges the value of others' contributions.
___	Engages with others' work	Knows what others on the team/subteam are doing; checks in/stays abreast of their progress; gives teammates constructive feedback and suggestions; helps or provides guidance to teammates; helps keep the team/subteam moving forward.

___	Communicates well	Facilitates communication within the team; exchanges relevant information with teammates; clear and timely communication.
___	Adaptable	Able to pivot when plans change or problems arise; willing to accept help; solicits and listens to suggestions and feedback; uses suggestions and feedback to improve.
___	Peer evaluations	Completed peer evaluations by the deadline. Provided thoughtful feedback.

- As part of the assessment of the above, each student is required to:
  a. Maintain a VIP notebook. Scans of well-maintained VIP notebooks are available on the VIP website. **Each student must understand that if work is not documented in their VIP notebook, "Then you didn't do it,"** (i.e. work that is not documented in the notebook will not count toward your grade).
  b. Complete the mid-term peer evaluation. This is a web-based form, and links are available on the VIP website. **Failure to complete the peer evaluation will result in a full letter grade deduction. Late submissions are not accepted.**
  c. Complete the final peer evaluation, which will be available for one week during the week preceding finals. **Failure to complete the peer evaluation will result in a full letter grade deduction. Late submissions are not accepted.**

Performance Assessments

Performance assessments will be done once at mid-terms and again at the completion of the semester. The mid-term assessment is advisory.



Notes on Documentation

Notebook Maintenance	- The notebook must be a bound notebook, with a sewn or glued binding, such as a composition book or lab notebook. - Your name, your project's name, your contact info, and your team members' contact info must be recorded on the outer or inside cover. - Each page must be numbered, dated, and signed.
To-Do List Maintenance	- Maintain check-boxes for items to be done. - Check-off and date items when done.
Meeting Notes	- For meeting notes, include check-boxes for items for which you are responsible and deadlines for your sub team and the overall team.
Usability	- Will your VIP notebook be of use to people who join the team later and need to refer to it? This includes legibility, intelligible technical and meeting notes, and overall organization.
Overall	- An overall rating of your notebook. (Detailed design notes, design decisions, copies of or pointers to code that you wrote, records of important websites, etc.)
Wiki content	- Wiki content refers to documentation produced online, either through the VIP wiki site, T-square, or other VIP-approved site.
GT GitHub (if student is developing software)	- GitHub code refers to code produced and checked into the GT GitHub or other VIP-approved code repository. The frequency, quantity and quality of contributions are evaluated.

Course Website
Canvas.gatech.edu

Peer Evaluations
Peer evaluations are administered by the VIP Program Click Here to access peer-evaluations from off campus. Click here to access from on campus. You will be prompted to sign in. Users can only log in from on campus or via VPN. Students can only access the peer evaluation portion of the system during active evaluation periods.

Course Policies, Expectations, & Guidelines
VIP is a collaborative, multidisciplinary, project-based learning and research experience. Your success in this course depends not only on your technical contributions but also on your active engagement with your team and the broader learning process.

Your Role in the Learning Process
As a VIP student, you are expected to:

- Take initiative in exploring and applying knowledge relevant to your project.
- Collaborate effectively with team members across disciplines and experience levels.
- Document your work thoroughly.
- Reflect on your learning and contributions throughout the semester.

This course is a real-world team environment, where learning is dynamic, self-directed, and collaborative. Your growth depends on your willingness to engage, contribute, and learn from others.

Team Meetings and Participation
Attendance and active participation in **team meetings** and **sub-team meetings** are required. These meetings are essential for:

- Coordinating project tasks and timelines.
- Sharing progress and receiving feedback.
- Learning from peers and mentors.
- Contributing to team decisions and direction.

Failure to attend meetings without valid reason may negatively impact your grade and your team's progress. If you anticipate missing a meeting, communicate with your team and advisor in advance.

Use of External Resources
You are encouraged to consult external sources to support your learning and project work. However:

- Do **not present someone else's work as your own**.
- Always **cite and reference** external materials used in your notebook, code, presentations, or other deliverables.
- Proper attribution is essential to maintain transparency and integrity in a collaborative research environment.

Attendance and/or Participation
Attendance at all lectures (Thursday 9:30-10:20a) and individuals sub-team meetings (as scheduled) is mandatory.

Extensions, Late Assignments, & Re-Scheduled/Missed Exams
Missed assignments are not accepted.

Inclement Weather and Digital Learning Days
If campus is closed, or has a delayed opening then VIP class will not meet in person or remotely.

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. The Student-Faculty Expectations articulate 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. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Academic Honesty
The main principle in VIP academic honesty is that you will not present someone else's work as your own. Tests and specific assignments (homework, lab assignments, etc.) must be your own work. For other work you are encouraged to consult whatever sources are helpful in learning and understanding

the issues associated with the material, but you should always provide appropriate references and citations where such material is included in your VIP notebook, programming code, presentations, etc.

Additionally, to provide a good working environment for all students, you're expected to adhere to rules given here, posted, or disseminated in class. Academic Honesty is taken seriously and failure to follow these principles will result in disciplinary actions as stated in the Student/Faculty Handbook.

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. Review Georgia Tech's Honor Code and the student Code of Conduct.
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.

Accommodations for Students with Disabilities
Georgia Tech offers accommodations to students with disabilities. If you need a classroom accommodation, please make an appointment with the Office of Disability Services (www.disabilityservices.gatech.edu). If you have an accommodation letter from ODS, please provide your team advisor with a copy of your accommodation letter and discuss with them how your accommodations will be applied. This should be done as early as possible in the semester.

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services (404-894-2563) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Labs and Facilities
This VIP class utilizes the Marcus bldg. fabrication and characterization facilities, and meets in GTRI facilities – both have additional security and safety requirements that require additional training. The building is thoroughly monitored by camera and physical security staff. Badges must be worn at all times, above the waist. In order to provide a good working environment, the following rules apply to anyone with access to these rooms and equipment:

1) Everyone is expected to pitch in to keep the rooms clean. Food is NOT ALLOWED in the lab areas, but is allowed in office spaces and conference rooms provided any spills or messes are cleaned immediately.,. Gum is a particular problem especially in carpeted rooms. Do not place used gum anyplace other than in a trash can.

2) You must be sure you know how to operate equipment safely. You are responsible for knowing the hazards and safe operation of any equipment you use.

3) Computer accounts are issued for your use only. You may not share computer accounts with anyone else, even another team member. All computer usage is subject to rules and policies of Georgia Tech, the University System of Georgia Board of Regents, and the State of Georgia.

Additionally, you are expected to be considerate of other users. Computer permissions are not authoritative. For example, just because you have file access to something does not indicate that it is appropriate for you to read or modify that file.

4) Buzz-card access to VIP facilities is a privilege contingent on abiding by the above rules. **Buzz-card access is logged, and rooms are video recorded.** Be aware that if there is a problem (theft, vandalism, or simply a mess left in a room), the logs and video records will be consulted. Do not allow unknown people to access Mrcus or GTRI facilities. Be sure to secure the facilities (i.e. close the door) when you leave.

Undergraduate Student Academic Success Resources:
A list of resources for undergraduate students' academic success and information about advising can be found at Success at Tech.

- 1:1 Tutoring: Students looking for additional assistance outside of the classroom are advised to consider working with a peer tutor through Knack. Georgia Institute of Technology has partnered with Knack to provide students with access to verified peer tutors who have previously aced this course. To view available tutors, visit gatech.joinknack.com and sign in with your student account.

Graduate Student Academic and Professional Success Resources:
A list of resources for graduate students is given on the Office of Graduate and Postdoctoral Education website. Specific information for current graduate students includes

- Academic Resources such as the Communications Center, Language Institute, Library, Catalog, Registrar, resources for conducting research, Advocacy and Conflict Resolution resources, and how to manage unexpected situations that may impact your academic performance;
- Student Resources such as Campus Services, Child Care/Family programs, Health & Wellness, Career Services, and the Student Resource Guide; and
- Professional Development such as the programming from the Career Center and other professional development resources and events"]

Student Well-Being:
At Georgia Tech, we are concerned about your overall physical, social, and mental well-being. A comprehensive list of wellness related resources has been compiled and maintained by the Office of the Vice President for Student Engagement and Well-being (student-resource-guide (gatech.edu)