

VIP Concussion Connect Syllabus

2601-VPY, 3601-VPY, 3602-VPY, 4601-VPY, 4602-VPY, Variable Credits

Wednesday, 12:30-1:20pm, Location varies

Instructor Information

Instructor	Email	Drop-in Hours & Location
Michelle LaPlaca	michelle.laplaca@bme.gatech.edu	By appointment

General Course Information

Description

The goal of the ConcussionConnect VIP Team is to examine the problem of concussion from a multidisciplinary view that includes neuroscience, biomechanics, medicine, sports engineering, health informatics, and societal issues. Projects stem from laboratory and clinical research projects in concussion assessment, prevention, and management and may include product design, programming, human subjects research, data analysis, or related research.

Sub-teams are formed based on previous semester projects, instructor guidance, and student interest. Projects have semester and long-term goals and deliverables. Sub-teams are required to meet outside of class, post meeting notes to Teams, and provide updates to the class and instructor during class (or as arranged). Students are expected to be resourceful, ask questions, and prepare by reading the literature, talking to experts in the field, troubleshooting problems, and work as a team.

Pre- &/or Co-Requisites

There are no pre-requisites or co-requisites for this course.

Course Goals and Learning Outcomes

By the end of this course sequence, students will be able to:

- Learn and practice professional skills;
- Contribute to the team project;
- Experience different roles on a multidisciplinary team.
- Learn about the pathophysiology, diagnosis, assessment, and clinical management of concussion
- Identify current problems surrounding concussion
- Propose creative and evidence-based solutions to concussion problems

Course Requirements & Grading

VIP teams function like real-world project teams. Members work on different aspects of a shared project, ranging from sophomores to graduate students, and from first-time participants to those with multiple semesters of experience. Students may enroll for variable credit hours, which are considered in grading.

Note: Zero-credit enrollment is reserved for paid participants and follows the same grading criteria.

Grading Overview

Each student is evaluated across three core areas, with three mandatory requirements. Regardless of role or experience, students must demonstrate achievement in all three areas according to the grading rubric.

1. Documentation and Records
2. Personal Contributions
3. Teamwork and Interaction

Rubric

Standard Met	Area	Details
Documentation (1/3 of grade)		
<i>Individual Documentation (see also Weekly Report for guide)</i>		
— *	Weekly update to individual notebook	Maintains electronic file with notes from all team meetings and research
— *	Notebook maintenance	Maintains usable notes for future students, including legibility, intelligible technical and meeting notes, and overall organization; Your name, your project's name, your contact info and your team members' contact info are recorded on the first page; Each page is numbered, dated and signed (for design-oriented projects)
— *	Accessibility to individual notebook	Makes notebook available to instructor and sub-team members
—	Consistent to-do lists	Leaves each team meeting with tasks/work to be done; Checks items off list as tasks/work are completed; progress and work completed can be tracked over time
—	Explanation of what was done; Reflects on what did/did not go well	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; Discusses what did and did not go well
<i>Team-level documentation</i>		
— *	Contribution to sub-team assignments	Contribute proportional effort to sub-team assignments; Actively contributes to overall team goals
—	Contribution to sub-team notes	Contributes to sub-team notes; Shares findings; Provides information for sub-team members
Contributions (1/3 of grade)		
<i>Individual Contributions</i>		
— *	Preliminary research paper	Identifies relevant background material; properly cites literature; aims to improve scientific writing; Searches for, finds, reads, and interprets scientific, peer-reviewed papers and technical articles
— *	Appropriate level of contribution	Work is timely, thorough, and accurate; comes to meetings prepared; Considering the course level and number of credit hours, contributions to the project were appropriate. Contributions may include obtaining skills needed to do the work.
—	Quality of contributions	Demonstrates understanding of current issues in relevant basic and applied research; Contributes useful ideas; Shows evidence of improvement over course of semester / project; Demonstrates progression and development of leadership skills
—	Proactive	Identifies or asks for tasks to do; does not leave weekly meetings without work to do, suggests next steps; does not stop working and searches for solutions when obstacles arise - checks team documentation, searches online, reaches out to teammates, etc.
<i>Team Contributions</i>		
— *	Mid-term Sub-team Presentation	Slide readability and relevance to problem; proper citation; research to date is clearly explained; questions

		answered clearly; team presentation is coordinated and professional
___*	Final Sub-team Presentation	Slide readability and relevance to problem; proper citation; research to date is clearly explained; questions answered clearly; team presentation is coordinated and professional
___*	Final Paper	Contains Introduction, Methods, Results, and Discussion (length will vary; format may vary depending on nature of project), written in scientific writing style (see peer-reviewed original research articles for examples)
Teamwork (1/3 of grade)		
___*	Attitude and participation	On-time attendance and participation in meetings; 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; asks thoughtful, relevant questions; acknowledges the value of others' contributions; Contributes to class discussion; asks questions; Manages time and tasks well
___*	Engages with teammates' 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; explains content to others; Coordinates activities with other team members; Engages in the project, self-motivated and pursue knowledge necessary for both the project's success and for independent learning
___*	Completes peer reviews	Completes mid-term and final peer reviews on VIP website on time
___	Peer reviews reflect observations	Peer reviews are consistent with above average contributions and participation noted
___	Communicates well	Communicates clearly and in a timely manner; exchanges relevant information with teammates; facilitates communication within the team; identifies obstacles and challenges; Recognizes others ideas; Involves others in effort; Assists other with their efforts; Focuses effort on achieving team goals
___	Adaptable	Able to pivot when plans change or problems arise.
___	Receptive to feedback, suggestions and help	Solicits and listens to suggestions and feedback; willing to accept help; uses suggestions and feedback to improve; Has self-awareness about independent effort and contribution to the technical progress of the team.

* Must meet expectation in order to earn an A.

Written assignments: You need to hand in the following during the semester (see schedule for due dates):

- 1. Problem statement & Semester Goals (ONE per SUB-TEAM submitted to Canvas and Teams by sub-team manager):** What is the problem and proposed problem solution? What are the semester goals? Include team member roles, project schedule (including milestones and deliverables), potential constraints & challenges (2 pages max with references)

2. **Preliminary research paper** (ONE per STUDENT, upload to Canvas and Teams): Background and literature review of general (e.g., concussion) and specific (e.g., concussion assessment) research topic and motivation for the proposed solution (i.e. What is the gap in knowledge that needs to be filled?). Read and interpret the literature as it pertains to your problem. Use peer-reviewed scientific resources and proper citations (2 pages max with references)
 3. **Midterm presentation** (ONE per SUB-TEAM, PowerPoint, submitted to Canvas and Teams by sub-team manager)
 4. **Final report** (ONE per SUB-TEAM, submitted to Canvas and Teams by sub-team manager): Introduction, Methods, Results, Discussion (length will vary; format may vary depending on nature of project)
 5. **Final presentation (or poster, if applicable)** (ONE per SUB-TEAM, build from midterm presentation, submitted to Canvas and Teams by sub-team manager)
 6. **Notebook** (ONE per STUDENT, upload to Canvas and Teams): Each student must keep a written or electronic notebook that records sub-team meetings, to-do lists, individual research, findings, etc.
- **1 Credit Students:** You are expected to complete all the assignments, attend team and sub-team meetings, and conduct individual research to support team. Out of class time commitment is approximately 3 hours per week.
 - **2 Credit Students:** In addition to the above requirements, assume a leadership position (Manager, Cross-team liaison, or other role identified by team), attend team leadership meetings with instructor (if scheduled). Out of class time commitment is approximately 6 hours per week.

Grading Scale

Grades are based on **the following areas**. Student meets or does not meet specified expectations.

A = meets expectations on 18 standards in all 3 areas and meets all * expectations

B = meets expectations on 15 standards in all 3 areas

C = meets expectations on 12 standards, etc. in at least 2 areas

Course Materials

Course Website and Other Classroom Management Tools

This course uses Canvas and Microsoft Teams for announcements, assignments, and reading material.

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.

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. [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

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.

Attendance and/or Participation

Attendance in weekly class is mandatory unless there is an approved time conflict override, or other instructor-approved excuse.

Extensions, Late Assignments, & Re-Scheduled/Missed Exams

If you miss a class session for an allowable reason (e.g., personal emergencies, approved Institute activities, interview), please contact me and submit supporting written documentation (email is fine). If you experience a personal emergency or extended illness, please contact the Office of the Vice President and Dean of Students to obtain documentation. If you are participating in approved Institute activities please contact the Student Academic and Financial Affairs Committee of the Academic Senate at least two weeks prior to the event to obtain documentation. Examples of unexcused absences include vacation, oversleeping, or transportation delays.

Inclement Weather and Digital Learning Days

We follow the Georgia Tech policy on inclement weather and digital learning days. Please check the Georgia Tech website and reach out to instructor for additional information.

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.

Student Use of Mobile Devices in the Classroom

Mobile devices and laptops are permitted in class as long as activity is directly related to class discussion and topics. You are expected to participate in class discussions and pay attention to the person speaking /presenting at all time.

Additional Course Policies

VIP Room and Equipment Use Policy

VIP rooms and equipment are shared resources used by multiple teams. To ensure a productive and respectful working environment, the following rules apply:

1. Room Usage Priorities

Room use is prioritized as follows:

1. Scheduled team meetings, lectures, and learning modules
2. Weekly sub-team meetings (multiple groups may share the space)
3. Video conferences or special meetings with VIP stakeholders
4. Other project-related work (multiple groups may share the space)

Room schedules are available on the VIP website.

Note: A “good neighbor” policy applies—students may use rooms during other activities as long as they do not cause disruption. Quiet individual work or studying is allowed when it does not interfere with scheduled uses. Similarly, multiple groups may use a VIP room at the same time.

2. Cleanliness and Conduct

- Everyone is responsible for keeping rooms clean.
- Food is allowed, but spills must be cleaned immediately.
- **Gum must be disposed of properly—do not stick it under desks or on carpets.**
- Rooms are monitored by cameras; violations may be reviewed via video.

3. Equipment Use

- Equipment may be designated for general use or assigned to specific teams.
 - General use examples: Projector in Klaus 1440, monitors in VL 465 and VL 463B.
 - Equipment assignments may change each semester.
- If unsure about equipment access, contact: vip-request@ece.gatech.edu
- Use equipment only for its intended purpose. Misuse may pose safety risks.

Important Equipment Rules:

- Equipment may not be removed from VIP rooms without a signed loan agreement approved by a VIP Director.
- You are financially responsible for any equipment not returned in good condition.
- You must know how to operate equipment safely. Approval to use equipment does not imply safety training has been provided.

4. Computer Accounts

- Accounts are for individual use only—do not share with others.
- All usage must comply with Georgia Tech, USG Board of Regents, and State of Georgia policies.
- Respect privacy and data integrity. Having access to a file does not mean you are authorized to read or modify it.

5. BuzzCard Access

- Access is a privilege and is logged.
- Rooms are under video surveillance. In cases of theft, vandalism, or messes, logs and footage will be reviewed.
- Do not allow unauthorized individuals into VIP spaces.
- Always secure the room (close the door) when leaving.

Campus Resources for Students

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 \(gatech.edu\)](http://student-resource-guide.gatech.edu))

Course Schedule

Week	Date	Location	Activity/Event*	Assignment*
Week 1	August 26	TBD	Introductions & Overview of semester goals	PubMed search; Sub-team selection & setup weekly meeting; Read at least one peer-reviewed paper on concussion
Week 2	Sept 2	TBD	Discussion: Intro to concussion	Discuss SRC Consensus Statement Patricios JS, et al. Br J Sports Med 2023;57:695-711. doi:10.1136/bjsports-2023-106898
Week 3	Sept 9	TBD	Discussion: Concussion assessment tools	Discuss Powell et al npj Digital Medicine (2021) 4:164 ; https://doi.org/10.1038/s41746-021-00538-w Problem Statement & Semester Goals due (sub-team)
Week 4	Sept 16	TBD	Subteam Journal Discussion	Subteam leads journal discussion
Week 5	Sept 23	TBD	Subteam Journal Discussion	Subteam leads journal discussion
Week 6	Sept 30	TBD	Subteam Journal Discussion	Subteam leads journal discussion

Week 7	Oct 7	TBD	Subteam Journal Discussion	Preliminary Research Paper due (individual) Subteam leads journal discussion
Week 8	Oct 14	TBD	Subteam Journal Discussion	Subteam leads journal discussion
	Oct 16		Peer Evaluations	Peer Evaluation due (tentative due date**)
Week 9	Oct 21	TBD	Sub-team updates	Midterm presentations due (sub-team)
Week 10	Oct 28	TBD	Sub-team updates	Sub-team updates
Week 11	Nov 4	TBD	Sub-team updates k	Sub-team updates
Week 12	Nov 11	TBD	Sub-team updates	Sub-team updates
Week 13	Nov 18	TBD	Sub-team updates	Sub-team updates
Week 14	Nov 25		Student recess	
Week 15	Dec 2	TBD	Final Presentations	Final presentation (sub-team)
Week 16 Last week of class / reading period/finals	Dec 4		<i>No class</i>	Peer Evaluations due (tentative due date**)
	Dec 9-17		<i>No class</i>	Notebooks due (individual) Final presentation slides due (sub-team) Final paper due (sub-team)
*Detailed calendar may be sub-team specific or subject to **centralized VIP changes				