



# VIP Year at a Glance

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Vertically Integrated Projects Program



# Before Recruiting: Creating/Confirming Courses

- VIP sections like standing meetings
  - Same day, same time, same location every semester
- Confirm & update section days/times
  - 5 sections per course
    - 2000 level, 1 credit
    - 3000 level, 1 credit, 2 credits
    - 4000 level, 1 credit, 2 credits
  - GT courses roll over from previous **year**, not previous semester
- Update webpage

# Student Recruiting


- Information sessions
  - Few teams: pizza and 5-minute overviews
  - Lots of teams: poster session, coffee



# Poster Sessions

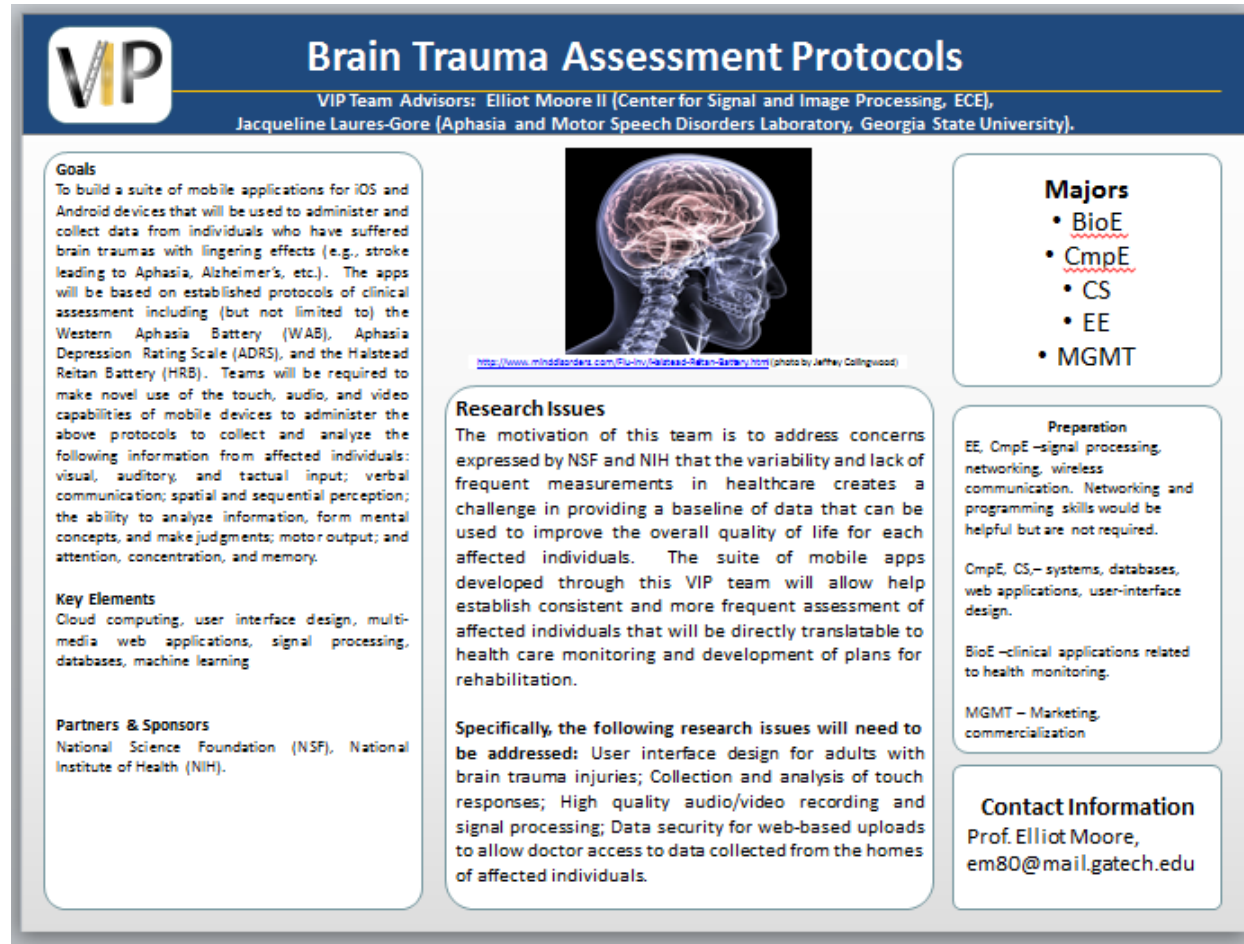
## PPT Merge

- Team spreadsheet
- Generates one slide per team
- Teams fill in center section



### Brain Trauma Assessment Protocols


VIP Team Advisors: Elliot Moore II (Center for Signal and Image Processing, ECE),  
Jacqueline Laures-Gore (Aphasia and Motor Speech Disorders Laboratory, Georgia State University).



**Goals**  
To build a suite of mobile applications for iOS and Android devices that will be used to administer and collect data from individuals who have suffered brain traumas with lingering effects (e.g., stroke leading to Aphasia, Alzheimer's, etc.). The apps will be based on established protocols of clinical assessment including (but not limited to) the Western Aphasia Battery (WAB), Aphasia Depression Rating Scale (ADRS), and the Halstead Reitan Battery (HRB). Teams will be required to make novel use of the touch, audio, and video capabilities of mobile devices to administer the above protocols to collect and analyze the following information from affected individuals: visual, auditory, and tactual input; verbal communication; spatial and sequential perception; the ability to analyze information, form mental concepts, and make judgments; motor output; and attention, concentration, and memory.

**Key Elements**  
Cloud computing, user interface design, multi-media web applications, signal processing, databases, machine learning

**Partners & Sponsors**  
National Science Foundation (NSF), National Institute of Health (NIH).



<http://www.mind disorders.com/flu-in/halstead-reitan-battery.htm> (photo by Jeffrey Collingwood)

**Research Issues**  
The motivation of this team is to address concerns expressed by NSF and NIH that the variability and lack of frequent measurements in healthcare creates a challenge in providing a baseline of data that can be used to improve the overall quality of life for each affected individuals. The suite of mobile apps developed through this VIP team will allow help establish consistent and more frequent assessment of affected individuals that will be directly translatable to health care monitoring and development of plans for rehabilitation.

**Specifically, the following research issues will need to be addressed:** User interface design for adults with brain trauma injuries; Collection and analysis of touch responses; High quality audio/video recording and signal processing; Data security for web-based uploads to allow doctor access to data collected from the homes of affected individuals.

**Majors**

- BioE
- CmpE
- CS
- EE
- MGMT

**Preparation**  
EE, CmpE –signal processing, networking, wireless communication. Networking and programming skills would be helpful but are not required.

CmpE, CS – systems, databases, web applications, user-interface design.

BioE –clinical applications related to health monitoring.

MGMT – Marketing, commercialization

**Contact Information**  
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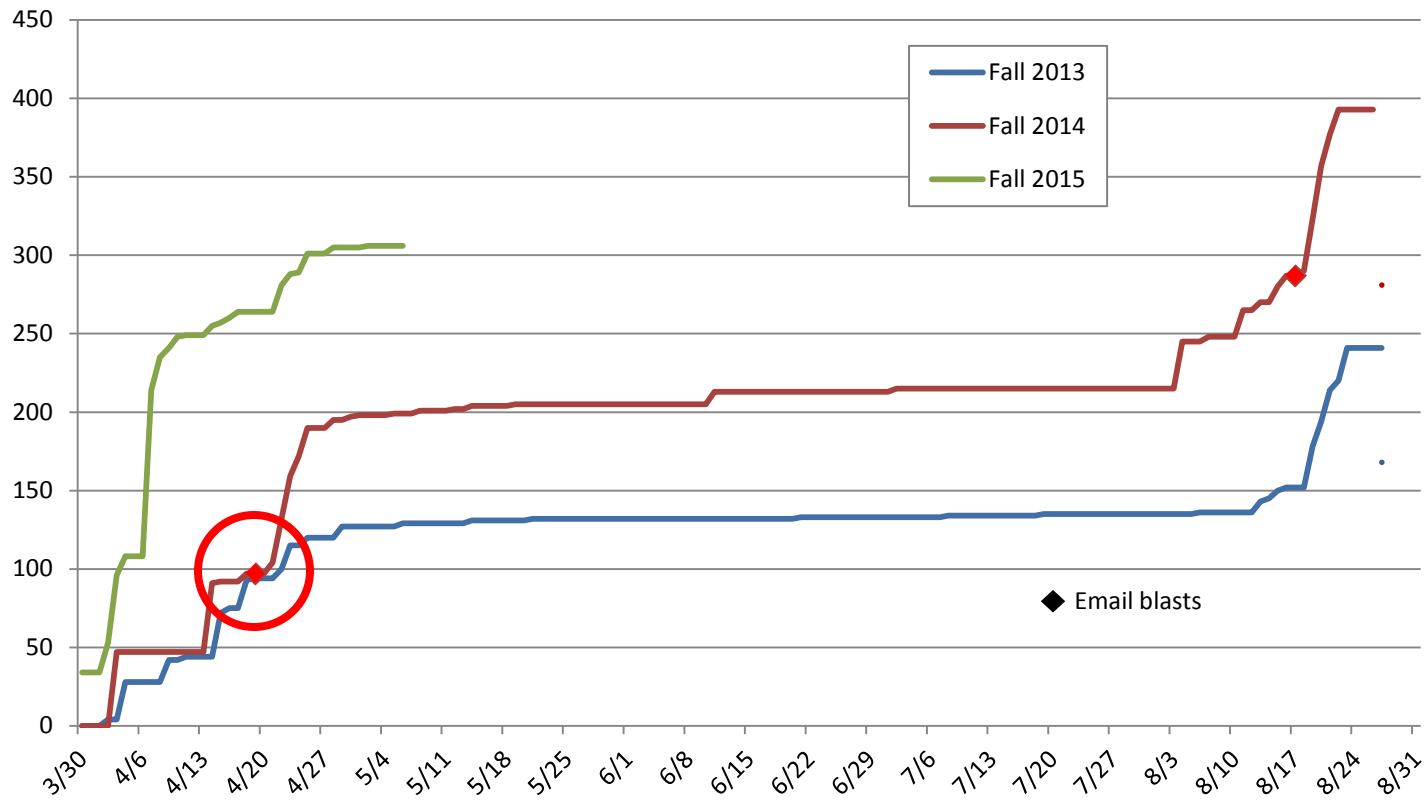
# Getting the Word out

- Email:
  - Don't rely on academic advisors to disseminate
  - Gain access to existing email lists
  - Build email lists from student queries
  - Use list-serves: populate, send, clear, repeat
- Visit or email student organizations
- Personalize emails  
(Greetings CS students, etc.)

# Value of Email Blasts

## Permits & Dates Granted

VIP: Fall 2013, Fall 2014



# Applications & Permitting

- VIP applications at GT

Name

Major

Academic rank

Student Comments

- Acceptance philosophy:

- Want a mix of

- Sophomores, juniors and seniors

- Desired majors

- GPA not considered

# Prep for Upcoming Semester

- Update syllabus
  - Peer review dates, holidays
  - Wrap-up before finals
- Set-up new faculty
  - Door access, peer review system
- Post classroom schedule online
  - Some teams meet in conference rooms, labs
- Email faculty list of students with permits
  - Most probably haven't enrolled



# New Semester – 1<sup>st</sup> week

- ~50% of GT VIP students register during 1<sup>st</sup> week
- Tuesday recruiting session
  - Same email blast routine
- Orientation during scheduled lecture
  - Course format
  - Design notebooks
  - Program evaluation (consent forms)

# Semester 1<sup>st</sup> Half

- 2<sup>nd</sup> Week
  - Door access for students
  - Lecture: How credits count
- Online application system rolls over to new semester
  - Add new teams
  - Let faculty know new students will begin looking at pages
- Mid-semester grading
  - Peer reviews
  - Instructors collect design notebooks
  - Grades to students before drop date (drop with a W)

# Innovation Competition

- GA Tech VIP Innovation Competition
  - Teams can submit multiple projects
  - Morning: Parallel Tracks
    - Open to all students
  - Lunch
    - Judges deliberate, winners notified
    - 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> place winners notified (\$300-\$1,000)
  - Afternoon: Finals
    - 1<sup>st</sup> place winners present again (open again)
    - Deliberation and announcement immediately after
    - Another \$600-\$1,200

# Semester 2<sup>nd</sup> Half Recruiting

- Another opportunity for students to share projects



# Semester wrap-up

- Continue recruiting
  - Targeted emails to specific classes for specific teams
- No VIP classes during finals week
- Last week of class before finals:
  - Final presentations
  - Peer reviews
  - Collect notebooks
  - There shouldn't be any surprises in grading (mid-semester grades)



[www.vip.gatech.edu](http://www.vip.gatech.edu)

Questions?

