Workshop for New and Prospective VIP Programs

Julie Sonnenberg-Klein

Full Team by Seniority:

- Ed Coyle, Director
- Chris Malbrue, Academic Prog Manager
- Leah Misemer, Assistant Director
- Deon O’Bryant, Assistant Director
- Mitsuko Ito, Academic Program Coord.
Introductions

Name & Institution

Want to Learn or Take Away (Today or This Week)
Quick Overview

• Why VIP **brief**
• VIP Model
• Key Elements
• Program Start-up
Why VIP?

Gains in:
- Job placement
- Leadership
- Professional skills
  - Ability to work with people from other backgrounds
  - Ability to work in multidisciplinary teams
  - Understanding of technology related to field
Most Compelling Findings: Job Placement

• Participants
  • 6% higher

![Job Placement Prior to Graduation Chart]

- Overall: 72.6% for Participants, 78.8% for Non-Participants
- Co-op participant: 70% for Participants, 50% for Non-Participants
- No Co-op: 60% for Participants, 50% for Non-Participants

Non-Participants: N = 11,308
Participants: N = 1,179
Most Compelling Findings: Job Placement

- Participants
  - 6% higher
- Co-Op Students
  - Not significant
- Non Co-Op Students
  - 8% higher among participants
Inequity among Non-Participants

• White Students
  • 6% higher
Equity among Participants

- Under-represented minority students
  - 9% higher for participants
- Asian students
  - 9% higher for participants
- White students
  - not significant
VIP: A Simple Model

Faculty embed large student teams in their research
10-20+ students/team
Vertically integrated teams
Last many years
VIP: A Simple Model

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Curricular
1-2 credits/semester
Letter grades
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Students can participate multiple semesters
Returning students:
• Mentor new students
• Lead subteams
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Team Listings: https://www.vip.gatech.edu/teams
VIP Often Requires Change

**Cultural**
- Who gets to do undergraduate research?

**Curricular**
- Undergraduate research
- Electives
- Required sequences

**Organizational**
- Egos, Territory
- Credits for courses from other depts
- Faculty course release time
Discussion: Undergraduate Research

How does undergraduate research work at your institution? Who participates? How?
Key Elements of VIP
8 Key Elements

2014

2022
Projects

#1 Embedded in faculty mentor’s research

Scholarship & Exploration
Projects

#1 Embedded in faculty mentor’s research
  Scholarship & Exploration

#2 Large-scale & long-term
  Many years
  Evolves with Instructor’s Research
Projects

#1 Embedded in faculty mentor’s research

Scholarship & Exploration

#2 Large-scale & long-term

Many years

Evolves with Instructor’s Research

3. Multidisciplinary teams encouraged but not required
Course

#4

Academic credit
Letter grades

B−
Course

#4
Academic credit
Letter grades

#5
Can earn credits toward degree for at least two years
1-2 credits/semester
#4 Academic credit
Letter grades

#5 Can earn credits toward degree for at least two years
1-2 credits/semester

#6 Dedicated classroom & meeting spaces
#4 Academic credit
Letter grades

#5 Can earn credits toward degree for at least two years
1-2 credits/semester

#6 Dedicated classroom & meeting spaces

#7 Development of disciplinary and professional skills
Participation

#8
Faculty/student participation is based on mutual interest
Establishing a VIP Program

1. Instructors
2. Course Framework/Grading
3. Champions & Supporters
4. Create or Repurpose Courses
5. Policies on How Credits Count
6. Students

Tackle in any order
1. Instructors

**Models for Teaching Credit/Release Time**

- No release time
  - Advances faculty research
  - Not an option at institutions with heavy teaching loads
- 1 course per academic year for:
  - Forever
  - First 2 years
  - First 2 years + Capstone-like credit beyond *(scalable)*
- VIP Director
  - Lighter teaching loads: 1 course per year
  - Heavy teaching loads: 1 course per semester
When Faculty Benefit, Stay Engaged

VERTICALLY INTEGRATED PROJECTS

The Vertically Integrated Projects (VIP) Program embeds multidisciplinary student teams in ambitious, long-term, large-scale, projects led by faculty. Students earn academic credit while faculty and graduate students benefit from their teams’ work.

Learn More at
https://www.vip.gatech.edu/
Selling Points

- Large-scale projects
- Access to Other Majors
- Low Risk Setting
- Broader Impacts
Recruiting Instructors

• **Voluntary**

• Low Hanging Fruit
  • Already working with undergrads
  • Need students from other majors

• Team information sheet (goals, methods, majors, etc.)
  • 3 or more years
  • General enough to last multiple years
  • Boring details later
2. Course Framework/Grading

Grading mid and end-of semester
2. Course Framework/Grading

Grading mid and end-of semester

Graded Components

Teamwork
Contributions
Documentation
2. Course Framework/Grading

Grading mid and end-of-semester

Graded Components

Teamwork
Contributions
Documentation

Observations
Peer Evaluations
Individual Notebooks
Team Documentation
3. Champions & Supporters

- Top-down or grass-roots
- Cultivate Supporters
  - Administrators
  - Curriculum committee members
  - Registrar
  - Staff

Organizational Embeddedness
Initial VIP Consortium Institutions

Organizational embeddedness of VIP Programs in the VIP Consortium, circa 2017. Adapted from a graphic created by Gordon Kingsley.
Discussion: Low-Hanging Fruit

Who might be a good instructor or champion/supporter?
If you’ve already started a program, what has worked well?
Where do you want/need to grow?
3. Create or Repurpose Courses

• Final goal: Campus-wide subject code (VIP, etc.)
  • Don’t have to start from scratch

• Short-term:
  • Temporary course numbers
  • Repurpose existing courses

• No right/wrong timeline
  • Can promote the program without emphasizing course number
  • More recent programs fast!

  American University of Beirut             Georgia College
  Lebanese American University               Georgia Southern
Notes & Suggestions

• Don’t cross-list!
  • 1 team: 12 course numbers
    If Cross-list to 5 departments: 60 courses, 240 cross-listings

• How instructors see courses:
  • One meeting time
  • Students in multiple course numbers
  • Same section number across the courses

• If class size regulated (small classes canceled), administration will need to understand the structure
Structure

- Levels
- Each can be taken multiple times

<table>
<thead>
<tr>
<th>Level</th>
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<th>Credits</th>
<th>Sections</th>
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## Structure

- **Levels**
- Each can be taken multiple times
- Teams identified by section number
  - VP1, Team 1 (forever)
  - VP2, Team 2 (forever)

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Structure

- Levels
  - Each can be taken multiple times
  - Teams identified by section number
    - VP1, Team 1 (forever)
    - VP2, Team 2 (forever)
- Credits
  - Goal: At least 2 years

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  - Goal: At least 2 years
  - 0 credit/audit for pay

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Lessons Learned

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  • 1 team: 12 course numbers
    If Cross-list to 5 departments: 60 courses, 240 cross-listings

• How instructors see courses:
  • Students in multiple course numbers
  • Same meeting time
  • Same section number

• Registrars:
  • If small classes are problems/canceled – communicate in advance
  • 1 and 2 (and 3) credits with only 1hr meeting time: unsupervised lab
5. Policies on How Credits Count

• Goals
  1. Space for 2 years of VIP
  2. Incentivize multiple semesters
5. Policies on How Credits Count

• Goals
  1. Space for 2 years of VIP
  2. Incentivize multiple semesters

  ➢ Multi-semester design sequence
5. Policies on How Credits Count

• Goals
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• Multi-semester design sequence
  ➢ Threshold policy
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5. Policies on How Credits Count

• Goals
  1. Space for 2 years of VIP
  2. Incentivize multiple semesters
• Multi-semester design sequence
• Threshold policy
• Free elective
• Pretoria model:
  • Fulfills required work experience
6. Students

A. Selection
B. Selecting
C. Enrollment Management
Student Selection

- Different majors
- Academic ranks
- Enthusiasm, not experience
  - No GPA, resumes, recommendations
- Paradigm shift
  - Instructors vs. Directors
Student Recruiting

- Low stress application
  - Name, Rank, Team, Credit hours
  - 250 characters on motivation
- Proactive: Webpage, email campaigns, rolling admissions
  - Before or at beginning of registration

Increases Access
Enrollment Management

• Needs:
  • Save room for returning students
  • Manage team composition
• Challenge with open enrollment
• Registration permits
Establishing a VIP Program

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3. Create or Repurpose Courses
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Discussion