Vertically Integrated Project (VIP) Program

Director: Aaron Ohta
Co-Directors: Wayne Shiroma
Tony Kuh
Zac Trimble
Mehrdad Nejhad

https://manoa.hawaii.edu/uh-vip/
Hallmarks of VIPs

- Project-based learning integrated with scholarly work
- Vertically integrated teams
- Long-term projects
- Often interdisciplinary
- Students receive curricular credit

Faculty advisor
Graduate students
Undergrads (3rd year+)
Undergrads (1st, 2nd year)
UH VIP Teams (Overview)

**Autonomous and Other Vehicles**
- Space & Aerial Robotics
- Kanaloa
- Unmanned Aircraft Systems (UAS) Applications and Security
- Fixed-Wing UAVs
- HI Engaged STEM Pathways (HESTEMP)
- Aerospace Technologies
- Autonomous Electric Vehicle System

**Renewable Energy**
- Smart Campus Energy Lab
- Open Power Quality
- Renewable Energy Design
- UH Energy & Sustainability

**Other**
- Cyber Security
- Smart Needle
- Manoa Astronomical Technologies
- Microrobotics
- Liquid-Metal Electronics
- Applied Materials and Nanosystems
- Bioprinting
VIP Teams Similar to K-12 Projects

• Similarities between VIP teams and your projects / clubs:
  • Long-term
  • Projects are self-supporting
  • Lots of (rewarding) work for the advisor
Lesson Learned About VIP Teams

• VIP faculty advisor mostly autonomous, but some suggestions:
  • Weekly meeting with entire team
  • Split team into sub-teams
  • Experienced student leads a sub-team (peer mentoring)
  • Make sure each student has some task that they “own”
  • All students document their work in a notebook/wiki/repository. If it is not documented, they do not receive credit
  • Give important tasks to non-engaged students → they will rise to the occasion
    – Have a backup plan in case they don’t
  • Students evaluate peers at least twice a semester
  • Ask fellow VIP advisors for help
    – Shared resources (peer evaluation forms, syllabi, etc.)
Interested in Learning More?

• Please contact me:  aohta@hawaii.edu
  808-956-8196

• Website:  https://manoa.hawaii.edu/uh-vip/

• Poster Session:
  – March 1, 3:30 to 5 pm, UH Manoa Campus Center Ballroom