



Engineering PCR (Budget Request)

**UH Engineering Consortium and the
Pre-Engineering and Lower Division
Engineering & Physical Sciences
Program**

- PEPS (program/student/faculty/etc)) = Pre-Engineering and Lower Division Engineering and Physical Sciences (program/student/faculty/etc)
- Help PEPS students join programs in pre-engineering and the physical sciences, remain in these programs over the UH system and help them transition successfully into similar programs on the UH Manoa campus
- Specifically helps Native Hawaiian and Part Native Hawaiian students, and students from disadvantaged backgrounds who have a disproportionate difficulty in accessing such programs
- Estimated to be 900 PEPS students in the UH System

Mechanisms

- Employing best practices to retain more PEPS students on their respective campuses,
- Giving more UH students the opportunity to graduate in engineering or physical science programs at UH Mānoa,
- Aiding the transition of students from the Community Colleges to UH Manoa, and
- Specifically assisting Native Hawaiian and Part Native Hawaiian students the PEPS program.

Program Components

1. Director and Office

- Director
- Co-Directors at CCs (release time)
- NHERP coordinator

2. PEPS lecturers and Faculty (20)

- Math lecturers at UH Mānoa (3)
- PEPS lecturers in NHERP (2)
- Math PEPS program Lead Faculty at Manoa
- Math program and PEPS faculty at the CCs (14)

3. Cyber Mentoring Program

- Director
- Student mentors – 6 per semester

4. Distance learning program

- New Course design
- Course Maintenance
- Release time for course development

Program Components

5. Mathematics Emporium

- Staffed by PEPS lecturers and faculty – supervised by Math faculty lead and ‘resident’ faculty
- Student mentors – 1 per 7 stations – 100 per semester

6. Pre-Engineering Moves to Engineering

7. Building Links between UH Mānoa and the CCs

- Stipends for PEPS faculty and Lecturers
- Project costs for annual PEPS competitions

8. Equipment, Software and Tech support

- Distance education technology
- Computers for Math Emporium, and Cyber Mentoring
- Partial Technician Support

9. Travel

- Consortium Meetings & Curriculum Development
- PEPS Competition & Out of State Travel & Advisor Travel

Performance Metrics

- UH Degrees earned in STEM fields offered by participating units. (Increase of 50 after 5 years, 3% annual increase subsequently)
- UH Degrees earned by Native Hawaiians in STEM fields offered by participating units. (Increase of 10 after 2 years, 3% increase subsequently)
- Six year and three year graduation rates, as appropriate, in STEM fields offered by participating units. (Increase of 15% after 6 years and 3 years respectively, 3% annual increase subsequently)
- Six year and three year graduation rates, as appropriate, of Native Hawaiians, in STEM fields offered by participating units. (Increase of 20% after 6 years and 3 years respectively, 3% annual increase subsequently)
- Number of transfers from UH Community Colleges to UH Mānoa in a STEM field. (3% annual increase)

Performance Metrics

- Number of Native Hawaiian transfers from UH Community Colleges to UH Mānoa in a STEM field (3% annual increase)
- Pass rate of all courses taught and instructed by faculty and lecturers in the PEPS Program. (Increase of 20% after 4 years, 3% annual increase subsequently)
- Pass rate of Native Hawaiians in all courses taught and instructed by faculty and lecturers in the PEPS Program (Increase of 20% after 4 years, 3% annual increase subsequently)
- UH Degrees earned in the Computing/IT fields. (Increase of 10 after 4 years, 3% annual increase subsequently)
- UH Degrees earned by Native Hawaiians in the Computing/IT fields. (Increase of 4 after 4 years, 3% annual increase subsequently)