Engineering PCR
(Budget Request)

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

- **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 leaning program
   • New Course design
   • Course Maintenance
   • Release time for course development
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)