

Engineering Consortium  
November 4, 2011  
9:00-1:00 p.m.  
College Hill

## **Meeting Summary**

Present: Peter Crouch, Bruce Liebert, Joshua Kaakua, Victor Lubecke, Bill Ditto, Monique Chyba (UHM), Joe Mobley (UHWO), James Dire (KauCC), Brian Richardson, Eric Matsuoka (WinCC), Peter Quigley, Suzette Robinson (UHCC), Herve Collins, Maria Bautista (KapCC), Mark Hoffman (UHMC), Ken Morris (UHH), Joanne Itano (UH System)

### IKE Update

Update on the three summer bridges:

Kap CC; non residential for high school graduates who completed Alg II and chemistry and physics; 14 attended; focused on Math 135/140 and Calc I and II.

UHMC: residential, 14 participated, included Calc I and II

UHM: residential, 20 students, 12 from UHM, 2 from Win, 3 from Kap and 3 from Lee.

In general students worked on math in the mornings and hands on activity in the afternoon.

Although it was planned that these groups would move as a cohort, some are taking math during the AY and may jump from Kap to UHM; new students will be added to Maui and UHM if they qualify.

The IKE math group will be meeting over the academic year. Eric reports that they will be exploring a combined Calc III/IV.

Calc I and II will be developed as online course using DCDC. Development expected to be completed in April 2012.

A three semester calculus series will be explored by UHM COE. Bruce will convene the group. Eric Matsuoka and Ken Morris also volunteered to be part of this group. It was suggested that the materials from the Khan Academy may be useful in developing such a sequence.

Math – discussion on use of modules for calculus III/IV. Bill Ditto mentioned the use of one credit modules for specific defined areas of math. Could break down content in Calc III/IV into smaller related concepts and offer as a module. Engineering students could enroll in the modules relevant/necessary for engineering.

### Pre engineering online courses

Phys 272 is currently being offered online using Collaborate (meeting twice a week).

In EE 211 pieces of DCDC course being used in current course which has 95 enrolled. UHMC offered to pilot course on Maui. Victor and Mark will work out details.

EE160 was offered in spring 2011, 10 students participated, 50% were successful which is a lower success rate than the f2f sections. Students may need more synchronous time and be assessed for readiness to take an online course. Having some difficulty with editing wordpress but there is no maintenance contract with DCDC.

### UHH – Proposed Engineering Program

UHH collaborating with UHM to offer a BS in engineering science which may be accredited by ABET. The curriculum is consistent with the three semester pre engineering curriculum. ATP is being reviewed by campus. There is \$300,000 available for planning. Concentrations planned are in alternative energy and engineering of systems. Anticipates need of 3-5 additional faculty including one for math, one for UHM. UHH has identified a consultant from Colorado with experience in an engineering science program who can help with accreditation.

### Marketing

Please review draft and send comments to Peter Crouch. Possible audiences for the marketing material include the professional engineering community, students and the legislature

### Automatic Admission

UHM is ok with the 2.0 GPA for students who complete the ASNS with the engineering concentration for direct admission to COE. UHMC expressed interest in the engineering concentration. After Kap CC approves a concentration in engineering, Joanne will prepare a MOA.

### UHM Curriculum Changes

Chemistry 171/L will be the chemistry listed in the UHM engineering curriculum. It is a 5 credit course and is equivalent to Chem 161/162 and their lab courses.