FIRE-UP Institute 2011
Daily Topics and Reflections
May 16th through 19th 2011

Monday, May 16

Introductions, getting started, setting goals, overview of ASNS/STEM Program, Grants
Advising students in the ASNS degree. Maria Bautista, Matt Tuthill, Mackenzie Manning What more could be done? How can M/SC use intrusive advising
Working Lunch Discussion on updating the ASNS degree: with Maria Bautista, Judi Kirkpatrick, Keolani Noa + 8 Attendees, Matt Tuthill, Mackenzie Manning. Next steps, especially on learning outcomes and Biology.
Undergraduate research experience to prepare students to transfer in STEM. Matt Tuthill, Mackenzie Manning

Courtney Kim
Good discussions today. Agree that student advising should be extended to faculty in populations, but with compensation and relief time of course. Excited about the undergrad research projects in the pipeline, will definitely send more "star" (academically serious ones) students JB and Matt's way. Exploration and discovery always excited me, so I'm really glad students also get this sort of opportunity. On a side note, I must say, I'm certainly comforted that other faculty are faced with weird students. For awhile this semester, I thought I was the only one blessed. Being a newbie, meeting new faculty and learning how they all (for the most part) want what's best for the student is honestly eye-opening and refreshing.

Matthew Fleming
Today I learned a lot about what's going on with other science subjects, in particular the biology classes. I also got a good overview of some of the active undergraduate research happenings, and got to think up some ideas for tie ins with my abilities.

Perhaps the biggest or most useful piece of information, though, is an answer to a question I began to have about halfway through the recent semester: do students have advisors and how often do they see them? At OSU, in the engineering program, we were required to see our advisors every term before we could register. I had heard that this wasn't the case, and few students talked to an advisor, but I didn't know what was going on at the institution level. Now I see there is a great need for student guidance.

Timothy Brilliande
In each class section take a few minutes to introduce and describe the availability of Student Science Research Projects available at KCC. This would also include examples of past student projects. Offer further "help" for those interested including discussion and contacts.

Charles Matsuda
I would pass along the STEM materials I obtained today, and recommend John Berestecky, Matt Tuthill, and Mackenzie Manning as research mentors.
Charles Matsuda :)

Margaret Lam
1) Talk about STEM at KCC
2) Share the reasons why I chose science
3) Throughout the semester, discuss different occupations as the concepts related to the jobs are covered
4) Use current events (local and global) to help students "see science in their lives"

5) Be an intrusive advisor
6) Find ways to engage the student to help them gain enduring understandings in science
7) Support their interest when possible...there are many people at KCC who can help also (meeting and learning about the work of my colleagues at KCC will hopefully allow for those connections in the future).

Daniel Brayton
Being that I am still pretty new it has been great to hear information from the more experienced faculty. I learned a lot about the types of undergrad research that is going on. I got some good ideas about how to better advise students. I also learned much more about the bio-related classes and the nursing programs (need to remember to ask Matt to email powerpoint stats).

John Berestecky
I will continue to advertise STEM opportunities in all of my classes and I will continue to develop and support student research activities in our labs. In particular I am enthusiastic about the projects we have going in biotech/immunology./molecular biology and the students we currently have who are working on them.

Mohamad Aghili
Entering college is like entering a foreign airport. Nothing seems to be familiar. Students usually don't request for help unless the are in trouble in the course. The faculty should be proactive in helping students shape their careers.

Designing a STEM mini course to coach potential students is a great idea. The course can be taught by a counselor and STEM guest faculty. Student can be assigned to each faculty member for duration of their studies.

Undergraduate research was another topic that was discussed today. Research can motivate students in science and technology. Also it helps the students to communicate their ideas in coherent language.

Tuesday, May 17

Writing-intensive, WAC, Davin Kubota; The engaged science educator; Ten Best Practices; I Cubed long term goals and objectives, Assessment of Institutionalization Mapping Tool (AIM).
Grants; Tactical Planning. Bob Franco.
Working Lunch discussion on Native Hawaiian student success classroom strategies. Keolani Noa. Native Hawaiian learning styles, support, successes. Maria Bautista, Judi Kirkpatrick, + 8 Attendees
Mackenzie Manning, Amy Patz, PLUS Sessions. What it takes and getting started.

Mohamad Aghili
I think my Physics lab students can benefit from WI program. Majority of lab students are great in doing experiments in the lab but they are unable to communicate their finding in words.

I am considering PLUS for my CE271 course. I think my students can benefit from a student mentor to review the concepts and solve new problems.
Matt Fleming
The opening of today's session provided some very good information about changing a course to a WIC. I have laid the groundwork to do this with EE211, and I will work with Herve this summer to complete the transition and bring other engineering and physics classes inline with this effort.

We didn't get to talk much about teaching to various learning styles, but I did some preliminary efforts this past term to cater to more visual learners (I noticed some students didn't like the more auditory teaching approach I had been using up until that point). The change was met with various

success, but I'm not sure the effort invested was worth it. A followup study will be conducted this summer.

I am really excited about the PLUS program. I have already tried to implement such a system through an extra credit-based incentive program, and two students have excelled in this area over the past two semesters. I contacted both of them today and they seem very interested in participating as early as next week. It is my hope to get them on board as soon as possible and begin working with them to really flesh out their already strong initial work.

Tim Brilliande
As a WI application, A&P may be a bit more challenging. However if we use current events or Medicine as a springboard, a writing assignment can be very interesting. I used a current event example(the near assassination of Senator Gifford) to mirror the daily news of her medical conditions and the significance of brain tissues and functions.

PLUS can take normal office hour discussions on course material to different planes. Introducing student to student, group dynamics and learning can definitely add to standard independent learning.

Courtney Kim
Kicked off the day with information concerning writing-intensive (WI) courses. Never knew of such a thing and now highly considering adding a "WI" component to the BIOL171 and 172 labs. My labs are already writing-intensive: 60% of their grade depends on well-written, thorough, inclusive (10) lab reports; adding the "WI" will just allow students to get a writing credit as well as being pre-informed of my expectations. Second half concerned PLUS and how to incorporate PLUS into your course. I honestly think this is a great idea. Not only will it reinforce concepts to students, it gives them a chance to work together with their peers and learn from a student who has already been through it all. Furthermore, it really reinforces the knowledge of the PLUS leader who will likely continue his/her erudition and professional development in a similar field. Hats off to Kenzie for making PLUS a large success in her course. If I have time before the fall, I would love to include this into my course for BIOL171. In fact, I already have a student in mind.

Charles Matsuda
PLUS could be helpful in drill and practice for memorization of various anatomical features.
Sessions may include assigning students to draw bones, muscles, organs, and tissues with proper labels.
The peer leader would have the students pass their artwork around to evaluate and correct each other's work.

WI assignments could include case studies of human illness or trauma, with the student tasked to research the cause and possible treatment of the dysfunction. Or a symptom may be described and the student be required to specify the cause.

John Berestecky
Plus session presentation was good thing to think about. Will try to incorporate it into BIOL 275 but need to identify a session leader.
Will also think about writing intensive for my MICR 161 class.

Margaret Lam
Today we learned about how easily a lab course could be designated a writing intensive course. While English 100 is required, preparing students for lab reports and science writing is important. PLUS seems to be something that would help students in our courses however the two immediate challenges are finding the right student and having the time to prepare a student peer leader and the necessary materials to guide the PLUS session. The PLUS would be a venue to address the different learning styles as students would not be receiving but building understanding.

Daniel Brayton
I really like the sound of the PLUS program and I have 3 students in mind that I'm going to email about the potential of them being a mentor this coming fall. I basically have the data/work sheets, it's just organizing it all. For the intensive writing I think I'm going to include a short paper into my class. It probably will not be enough to make my class qualify as an WI course, but at least get them writing and get some feed back.

Wednesday, May 16th

Math, the foundation to a STEM major. Sang Chung, Dennis Perusse
Working Lunch Discussion: Innovative Methodologies. Can mathematics be taught more in science classes? Maria Bautista, Judi Kirkpatrick, Dennis Perusse, Sang Chung + 8 Attendees
More Math
Louise Pagotto, Charles Sasaki on STEM Program Success Rates: Where are we, where would we like to go, and how are we going to get there?

Daniel Brayton
While it was nice to hear about what Sang and Dennis are up too and I think they are doing good work. The hybrid looks great, but I think they shouldn't have lost the 0.5 credit hours. However I felt the day was to much math (about 4 hours). I felt like it was to much, it wore me down, but maybe the AC being broke had something to with it too.

John Berestecky
Interesting day discussing these issues. Not sure emporium is the way to go based on the data presented. Hybrid looks effective.
Math needs to be streamlined and simplified. Not good that so many students journey through this curriculum takes so long.

Timothy Brilliande
Math approaches for introductory courses seem to be well thought out and can be a good plan for the future. It was a positive situation to meet with the Dean and express our views about success. It is hoped that areas such as counseling and funding for Asns degree support and guidance can be found.

Mohamad Aghili
Today's topic was great. It was about breaking the molds and trying something new and succeeding!!!!
Instructors line SUNG have a lot of courage to embarce change the way they do.....

Margaret Lam
Since my arrival at KCC, pre- college and college math issues seemed to surface at many meetings. Today helped me gain a better understanding of the math curriculum and the challenges facing the faculty and students. It is admirable that individuals like Sang and Dennis from the math department are working to create a new approach for math at KCC- one through the emporium method and the other through summer bridge. During these 3 days, I have learned that Kapiolani CC has many dedicated teachers who are looking for ways to improve their effectiveness and increase student success. While success rates (by sections) below 70% were mentioned by administrators, any analysis of success rates would be improved if there was consistency in the way student results are recorded.

Matthew Fleming
It was nice to be filled in about the success rates for Fall 2010, since the given sheet only covered half of 2009. I am looking forward to receiving more of the raw data from Charles that was promised so I

can take a look at how my math classes performed with respect to other math classes and historical performance.

Courtney Kim

The steps the math department is taking towards improving success rates are commendable! I think the data should continue to be tracked longitudinally. I was surprised that students seem to have difficulty with problem solving in all science disciplines, not just my courses. I agree with several pts discussed today: memorization is very important in math, I feel it really lays the foundation for application; students learn differently, however, finding time for one-one tutoring seems unrealistic. The MyMath program is organized very differently, and in my honest opinion, better than Mastering Biology. I had fun participating in the math activity today, not only was it a nice refresher on basic math, but I got to be a student for an hr.

Charles Matsuda

It is eye-opening to see success rates improve significantly for math courses with normally lower rates. Early results spark optimism that such gains may be seen for KCC math classes. This also gives me hope that teaching changes may impact the classes I teach (Biol 130).

Thursday, May 19th

ASNS Program Outcomes Assessment
Working Lunch Discussion: Innovative Methodologies and how to develop assignments for outcomes assessments, WI, SL, Cornerstone Classes. Maria Bautista, Judi Kirkpatrick, Mackenzie Manning, Naresh Pandya, Wendy Kuntz, Teena Michael, Susan Inouye, Amy Patz + 8 Attendees
ASNS Program Outcomes Assessment, Discussion, Analysis, and Closing the Assessment Cycle.

John Berestecky

OK, we got to do it - we got to do it, but realize that we've got a lot of assessment going on already. Classes are full of assessment rubrics meant to measure learning achievement and mastery of multiple levels of competence. Lets use those assessment tools and not constantly invent new ones -- making people who are already doing a good job and who are already very busy even busier with busy work. The most meaningful indicator of success for our students is their success after leaving us -- lets find a way to measure that.

Daniel Brayton

I learned a lot about the ASNS program degree outcomes, which will be valuable for convincing students to be more interested (Chem 100) and realize that they should sign for the ASNS degree (those in the Chem 161-162 series).

Timothy Brilliande

I feel that the most important aspect of working with and on assessment of student projects was the strong interdisciplinary discussions on points of "grading" as well as levels of what is expected from KCC 2 year students. An important aspect of the entire approach is whether this should be a requirement of all students in one form or another as n applied outcome of something above simple learning.

Matthew Fleming

After seeing some of the great engineering coming out of the CANSAT team, the UROV team, and other advanced engineering project teams, I am excited about lending some advanced help to and getting more students involved in these projects.

Margaret Lam

Becoming familiar with student science research at Kapiolani CC helped me to see what other faculty are doing. Amazing guidance by faculty and work by students! Initial use of the ASNS rubrics allowed each of us to score student research in two types of media- poster and power point. During our

discussion, my colleagues and I found that the way we interpreted the outcomes under Self and Community were responsible for the inconsistencies in our scores for the same project. For this reason, more clarity is needed. The number of outcomes also needs to be reduced and simplified so the rubrics accommodate the broader range of projects in the science and math department.

Courtney Kim
Phew... I never knew of all the work that went into assessing a degree/program! I think a lot of issues were brought up today along with workable solutions. As far as assessment goes, I think many more discussions will be necessary in the future (unfortunately) to really come to some sort of agreement of how to assess our students. On a brighter note, some of the undergraduate research projects were just astounding! Far beyond the scope of what I expected from freshmen and sophomores. I think this is very telling of the faculty mentors we have at KCC. :)

Mohamad Aghili
Today we had a opportunity evaluating student presentations and artifacts. I was really impressed with the work our students are doing in a two year program. I focused mostly on the Physical Science artifacts. We evaluated at least 10 attifacts and shared the results with the team. We also got a chance to review/rework the evalation criteria.

Great day!!!!!!!!!!!!!!!!

Charles Matsuda
I learned more about SLO's and program objectives evaluation than were included in all previous emails, announcements, meetings have so far disseminated. A lot of good information was out there, but I did not assimilate much of it. Today's work and discussions were thorough goingly elucidating.
