

Biological Sciences Department Meeting Minutes

November 19, 2015

Attendance:

Name	P	A	Name	P	A	Name	P	A
Cindy Anderson	X		Jennifer MacDonald	X		Sherry Schmidt	X	
Frances Borella	X		Beta Meyer	X		Sarah Scott		X
Chris Briggs	X		David Mirman	X		Cindy Shannon	X	
Alison Chamberlain	X		Loni Nguyen	X		Deidre Vail	X	
Mark Cooper	X		Virginia Pascoe	X		Naomi Velarde-Jang		X
Lynda Hoggan	X		Craig Petersen	X		Carola Wright	X	
Karyn Kakiba-Russell	X		Melissa Presch		X	Jeremy Marion		X
Janine Kido	X		Tim Revell		X			
Betsy Lawlor	X		Carmen Rexach	X				

1. Guest Todd Lorenz, Asst Professor of Biology, U. of La Verne

Desired outcome: investigate the possibility of a Mt. SAC/U. La Verne student research project.

Dr. Lorenz spoke to colleagues at So Cal American Society for Microbiology about putting research into the classroom. There is great potential for collaboration on a project between Mt. SAC Biology Dept and University of LaVerne (USC Keck Medical School is also involved.) The lab curriculum is based on finding microbes that produce chitinase (*Actinomyces spp.*). Dr. Lorenz has media loaded with chitin. He uses soil from plants around campus as a source for the microbes. Students have to identify the plant and look up coordinates as to where they found their sample in addition to characterizing the microbe. Students will look at antibiotic resistance of soil isolates. The class also reads a paper about *Actinomyces spp.* and determines if the antibiotic resistance of their organism matches the organism described in the article.

To isolate and sequence DNA, Dr. Lorenz uses a crude lysate to load thermocycler, sends the sample out for sequencing. At end have students sequence 16S ribosome gene. This procedure costs each student \$5. He may be able to offset some of this cost, might be able to share cost. He has his own primer. The required media is labor intensive to make, but works the best. Dr. Lorenz would like to do a collaborative project with our microbiology faculty. Would also like to isolate metagenomic DNA.

Dr. Lorenz wants us to isolate the strains of bacteria, then his students can further characterize. This would be a collaboration between 3 institutions (Keck, LaVerne, and Mt. SAC). Grants, discovery and publications are possibilities. He has 8 students on this project at LaVerne that may help with media production. Our students may include microbiology, Bio 8, and genetics classes. Individual students may isolate organisms, then teams could decide what to sequence. This would be incorporated into the curriculum. No minimum or maximum number of our students is required to participate. There can be 1-5 strains isolated per student. LaVerne will have 45-50 students going through the project. May pilot this project in micro 1, then if it works out include other classes. In 1 gram of soil will have 10K different organisms, potential for novel strains is very high.

Micro faculty will look into this first, then other courses may become involved. Cindy A, Carmen and Chris will be in charge of piloting this project. Carola, David, and Beta will be invited. Samples may be taken from the Wildlife Sanctuary.

2. Senate report by Senator Briggs

Desired outcomes: department is informed of the meeting, directs Chris how to vote for us, and has their questions answered.

At last week's meeting, the academic senate reviewed a recent edition of Senate Rostrum with some information on Baccalaureate Programs at other community colleges. There are some issues that we may want to look at such as rigor of the courses and tracking students that may be interested in these programs.

There was a brief discussion about a resolution to reject current Accreditation Board and switching to another. The executive board is working on a resolution to reject the current Accreditation Board, but uphold decisions pertaining to the current accreditation process.

3. Reconnect by all

Desired outcome: faculty catch up on what's going on in each other's lives

Carmen thanked all those who helped with the Brazilian visitors, especially Loni and Peter who took the visitors to Las Vegas! Dr. Davim's talk was very successful.

Chris Briggs was recommended for tenure by his probationary evaluation committee!

NAISA collected food for 2 underprivileged families and are writing holiday cards for those in the military.

The Rancho Santa Ana Botanic Gardens (RSABG) approved Cindy S. to become a member of their Overseer Committee. Congratulations Cindy! At RSABG there will be research opportunities, and an "inside the outdoors" type of program.

Betsy was asked to participate in a conference held by the Society for Archaeology Outreach. She will be presenting a similar workshop that she developed for a past Debbie Day. She will also be the keynote speaker for Debbie Day this coming year! Her keynote address will focus on Learning from the Past, Planning for the Future.

4. Teaching critical thinking, sabbatical report, learning skills workshop report by Loni

Desired outcomes: Loni shares her thoughts on this subject and an interest group is formed to share ideas

Loni reported on the Learning Skills and Student Success Workshop that she provided in the STEM Center this semester and thanked faculty for advertising.

- The workshop consisted of 4 consecutive 1hr meetings on Monday and Thursday afternoons during the first 4 weeks of semester.
- Most students attending received extra credit.
- 85 students attended at least 1 meeting and there was a high percentage of attendance to 2-4 meetings.
- The average gpa of attendees was 3.3 with a range of 2.5-4
- Mostly majors in health care, some non-health care majors.
- High percentage of attendees strongly recommend workshops (53 respondents)
- 81% would not have gone if no extra credit was offered.
- Progress reports showed a high percentage of A's

- 95% of attendees used strategies learned in these workshops in their classes.
- Majority of students agree that strategies are helpful, apply to their courses and that they can learn these strategies in a short period of time.

Loni's plan forward includes a possible repeat of workshop and she will be applying for sabbatical. During the first semester (Fall, 2016), her sabbatical project will be to make short videos to teach these strategies. Through a survey, most students said that they would watch these videos to learn these strategies. Those students that said they wouldn't watch the videos prefer face to face instruction. Videos would be avail when an instructor may not be.

Data shows that she is dealing with motivated students. Bio 50 targeted struggling students. Bio 50 is a stand-alone course and no longer an active course. We need to advocate for reinstatement of this Bio 50. One option for offering Bio 50, is as a fee based course through continuing education. Loni would be paid. Bio 50 would be listed with courses that support CTE programs.

According to a weekly survey, students found the learning strategies presented in the STEM Center workshops as new, having never seen them before.

Loni still needs department help in advertising that the videos will be online, and collecting feedback from students that watch the videos. Faculty that support Loni are agreeing to collect data and provide her with student grades. She needs a release form so that we can give her the grades.

Loni may structure her sabbatical project in a similar manner as the tutorials set up at library. There is a test and certificate at the end of each tutorial. This would be a possibility for Loni's videos, then the student can bring the certificate to their teacher to get extra credit.

There is free conference software that can be used to conference with students. This can also be used for learning strategies workshops.

Loni also invited Biology Dept. Faculty to share ideas about how we can incorporate critical thinking in our classes and how we can test for this. Loni will be happy to coordinate a meeting for those interested in this discussion.

5. Report from Association for the Advancement of Sustainability in Higher Education (AASHE) meeting by Chris

Desired outcome: Department is informed of trends on other campuses, major topics of discussion, and potential contacts at other institutions for particular projects

Chris attended the Conference for the Association for the Advancement of Sustainability in Higher Education in Minneapolis, MN. He shared information and ideas from the conference that were applicable to our department:

- Many professors shared ideas about sustainability that they developed with their students. Some music and performing arts departments were represented where groups were creating songs performed on campus. A great deal of potential was demonstrated here.
- All education involves sustainability. We can teach as though people are a part of nature or as though people are separate from it.
- There was some sharing of the possibility that science doesn't have all the answers that we need right now. We need to look at other fields. This led to some speakers

suggesting some of the problems in various fields of study. What unhelpful incentives exist?

- Encourage long term thinking (100-1000 years and beyond). This also led to discussions of ecology of place.
- Consistent incorporation of Native American ideas, some speakers had ceremonial elements to their speeches. Many indigenous ideas were shared.
- Hard questions were asked such as “Why is humanity worth sustaining?” Ideas about why this is a good idea were shared.

There were 4 faculty from Mt. SAC, 6 students were planning to go, but their funding was denied at the last minute for the second time in a row. It was unclear to administration about what about sustainability is advocacy for the students. Probably ½ of the people there were students.

The President's Stars of Excellence account was suggested as a funding source for future travel costs.

6. Department party/retirement party by Lynda

Desired outcome: department makes plans for the event

Lynda will put a paper in our mailboxes with choices for dates for the end of the year party. The location for the party is to be determined.

7. NSF DBI Undergraduate Biological Education Grant by Beta

Beta spoke to Matt and Karelyn about this grant opportunity. The deadline for proposal submission is in January. This is a planning grant for \$50,000. Funding is for 1 year of planning. Collaboration is expected. This might be a way to fund Dr. Lorenz's project. Those interested in talking about putting things together included:

Carmen, Betsy, Alison, David, and Carola

8. Whether or not to write letters of recommendation for a candidate if you are on the hiring committee by Mark

Mark suggests that a discussion is needed on this topic during the next meeting. We need to weigh the pros and cons. David is required to be on hiring committees, but Mt. SAC adjunct faculty would not get letters from the dept. chair, whereas non Mt. SAC adjuncts would. Several issues need more discussion.

9. The Refrigerator needs to be cleared and cleaned more often!by Sherry When you put items in the refrigerator write your name and the date. Tables and Counters also need to be wiped clean after every use.

10. CP talked to Dr. Scroggins, need a nature center down in WLS, WLS committee think about what would be good down there. Place where people can come learn about the history of Walnut.

11. Review of commitments made

- Anyone interested in meeting to share ideas about critical thinking should email Loni.
- Carmen will set up the meeting for the collaborative project with Dr. Lorenz from University of LaVerne and will invite, Chris, Cindy A. Carola, Beta, and David

- David will put up posters for scheduling on Monday.
- Lynda will put papers in our mailboxes with choices of dates for the end of the year/Lynda's retirement party.

12. Announcements and events

- Next department meeting December 3, food by Tim and Frances
- Cindy A. will be serving on the lab parity committee
- Malcolm Rickard (Physics/Engineering dept) is serving on the EDC
- The Bureau of Land Management Youth Summit last Friday with the assistance of EAGLE was a great success!