

!!  
!  
" # " # ! \$ % & ' ( ) \* ) + ! , % - ( . ! " ' ' / \* ) + !  
01!2%&' 34' (!5607!  
!  
" 829: ; <!!

**Governing Board Voting Members in Attendance:**

- Michael Lee (Chair, CSU East Bay - Faculty)
- Mathieu Richaud (Vice Chair, CSU Fresno - Faculty)
- Jim Harvey (MLML, Director)
- Nick Welschmeyer (MLML/SJSU - Faculty)
- Mike Graham (MLML/SJSU - Faculty)
- Sophie Bernstein (MLML Student Body)
- Pam Stacks (SJSU, Research Foundation representative)
- Michael Kaufman (SJSU, Operating Institution - Admin)
- Jason Singley (CSU East Bay - Admin)
- Andrew Lawson (CSUMB - Admin)
- James Lindholm (CSUMB - Faculty)
- Dave Evans (CSU Stan - Admin)
- Brian Sardella (CSU Stan - Faculty)

**Governing Board Alternates and Non-Voting Attendees:**

- Mohamed Abousalem (SJSU - Admin)
- Scott Shaffer (SJSU - Faculty)
- Raj Prasad (SJSURF)
- Cheryl Logan (CSUMB - Faculty)
- Jim Murray (CSU East Bay - Faculty)
- Kathleen Donahue (MLML/SJSU Asst. to Director)
- Jane Webster (MLML/SJSU Financial and Admin Analyst)
- Terra Eggink (MLML/SJSU Graduate Program Coord.)
- Brian Ackerman (MLML/SJSU Marine Ops Manager)
- Jocelyn Douglas (MLML/SJSU EHS Officer)
- Katie Lage (MLML/SJSU - Faculty, Librarian)
- Max Grand (MLML/SJSU - Faculty)
- Tom Connolly (MLML/SJSU -Faculty)
- Mike Prince (MLML Asst to Director)

Call To Order: 9:40 am

**Minutes:** Mina Sattari, MLML Graduate Student, Phycology Lab



## Acceptance of Spring 2019 Gov Board Meeting Minutes

- Motion to accept the minutes passed

### Items to put forth to vote?

- No items put forth to vote

### CSU Review Team and Administrative Campus Update

- Dean Kaufman gave a summary of the background, CO Review Team, report of recommendations, and creation of a Working Group.
- Chancellor sent a team to review the issue of MLML's operating institution. The Gov Board provided input in this process. The review team met with MLML, SJSU, and CSUMB. The Gov Board crafted a response to the review team report and asked about the fate of the governing board.
- Chancellor accepted the recommendations by the review team and is moving forward with an implementation process.
- Generalities can be interpreted in different ways, CSUMB and SJSU must come to an agreement and collective understanding of the recommendations.
- MLML Consortium campus Presidents were issued a memo notifying them that a working group will be chosen from a list of nominations from each Consortium campus President.
- The consortium model will remain intact and SJSU is looking forward to taking a bigger role in the support of MLML.
- Uncertainty is lifted and it is time to move forward to see what the governing board can do and how philanthropic efforts can increase for MLML.
- A breakdown of tasks and status of assigned tasks and a summary of main points.
- Two large scale recommendations from the chancellor's review team:
  - 1. Optimal organizational design: SJSU remains the operating campus with more prominent leadership role. All consortium campuses have opportunities to participate in ML research activities.
  - 2. There should be some equitable financial responsibilities: students can continue to apply and enroll through any consortium campuses but tuition goes to SJSU. Student services provided by CSUMB with fees paid to them. Participation in research should be pay-to-play so access to facilities is funded fairly.

#### *Discussion*

- Moss Landing is in need of funding, Dean Kaufman at SJSU is responsible for our financial status in partnership with the Director of MLML.
- We want MLML to be easily accessible, but we must keep fiscal realities in mind.

#### *Implementation Team/Working Group Discussion*

##### *Dean Kaufman, SJSU*

- A group met with Chancellor White and EVC Lauren Blanchard.

- The Chancellor stated that SJSU will continue as MLML’s operating campus. The lab is open as a coalition of the willing to participate in both financial and intellectual contributions via a pay-for-play model, they are looking for an inclusionary path so faculty could supervise theses.
- The main point Dr. Blanchard made was to reframe the governing board as to reflect more that it functions as an advisory board.
- Although the term “affinity group” has been used, MLML is still considered a “consortium” because of the degree program and facilities MLML offers.

*Five Tasks Assigned to the Implementation Team:*

- Transfer of tuition revenue to SJSU for delivering academic program.
- Financial people still discussing money part.
- Same model will apply to other campuses but SJSU and CSUMB have the vast majority of students so figuring out this structure is important and other campuses can follow the same model.
- Collect info from MLML for who is registered and what their tuition is and the tuition will be transferred from registered institution to SJSU.
- Arrange for provision of student services by CSUMB and corresponding transfer of fees.
- Close to implementation, some small technical details to be worked out.
- MLML students will be provided a CSUMB Otter ID to give students access to the facilities at CSUMB (gym, medical, housing, etc.); MLML students will have full access to facilities as a CSUMB student.
- Same model applies for students at MLML from other campuses.
- Revision of Gov Board bylaws is necessary. The MLML Bylaws were written in 2004 and modified in 2007; The document currently refers to roles, responsibilities, and organization structures that must be revised going forward:
  - Pay-to-play model
  - Consideration of various sustainable funding models for the operation of MLML

## **PAY TO PLAY**

*Discussion*

- Would graduate students be offered student housing with room sharing or would they be offered any alternative housing? (Terra)
- Undergrad and grad housing is not separated at CSUMB. Most CSUMB grad students do live in east campus housing. Housing may be separated in the future (Dean Lawson, CSUMB)
- What would happen if nobody wants to pay-to play? (James Lindholm, CSUMB)

*Jim Harvey*

- MLML would just be in the same fiscal situation, same operating budget. We would like additional sources of revenue that do not put a burden on faculty here who have

many grad students. MLML is managing what we have fairly well but from the POV of SJSU we could survive the way we are, however, we may not thrive.

- There has been discussion about other universities outside the CSU system being able to pay-to-play. Marine ops already has many outside users paying-to-play so this could be implemented for other MLML resources. Currently Geoff Wheat from the Univ of AK is leasing lab space; this is another example of this structure in use. However, there has been no market analysis of this.

### *Discussion*

- For faculty at CSUMB who are primary advisors for their students, they get workload credit from CSUMB so if all tuition is going to SJSU how will that work? Also a lot of students take elective courses at CSUMB so will CSUMB get tuition for those credits? (Cheryl Logan, CSUMB and MLML Visiting Scientist)
- The workload credit for them is relatively small so SJSU is not too worried about that but students taking courses are something that will have to be examined. Tuition should follow cost of instruction so if CSUMB is bearing that cost then they should be paid for that. (Dean Lawson, CSUMB)
- The cost for instruction here at MLML is high compared with the cost of instruction for a large GE class at another school. (Dean Kaufman, SJSU)
- Think about fixed costs vs variable costs. Fixed costs can come from external people but not from consortium. What are the incremental costs of operating something? Not purchases or replacements but actual operation. Cheryl's point about CSUMB is key because MLML only has 10 faculty members here at MLML and the sharing of the workload across the consortium is very beneficial to students. There are strengths in the relationships between students and the CSUMB faculty. If we can reanimate some of the dormant campuses in terms of faculty and research then we should be able to apply the same model as we are with CSUMB faculty advisors (Lee, Chair, Gov Board, CSU East Bay)
- MLML-SJSU encourages outside people to advise theses but in reality, on paper, they are advised by an MLML faculty member (James Lindholm, CSUMB)
- MLML faculty must be the chair of the committee and this works well with people who are here at MLML but it is more difficult for advisors at CSUMB. The degree is what requires a MLML faculty to be a chair. We have tried to allow for these opportunities but changes possibly could be made (Mike Graham, MLML).
- We should change this to more fully engage with outside faculty (Dean Lawson, CSUMB).
- Not being a thesis committee chair is a huge barrier to advising students at MLML. How can this be resolved? Moving forward this is a very important point for CSUMB (James Lindholm, CSUMB).
- This is also a burden on the MLML faculty member for taking responsibility for a student, the workload and providing them a desk. It would be easier for MLML faculty to consider these students if the workload was made clear. MLML faculty would be appreciative of clarity, transparency, and changes (Mike Graham, MLML).

- There is a \$2 million contribution by SJSU which opened up the conversation about tuition being transferred due to the expensive cost of teaching here. Something that is still up in the air is what pieces of money for new infrastructure and facilities should come from the users and what should come from the system? What is the philosophy and purpose of this pay-to-play model? (Lee, Chair, Gov Board, CSU East Bay)
- This model defines researchers outside MLML who need space or boat time. They should be paying for that; this is not a long-term way to fund MLML operations. (Dean Lawson, CSUMB).
- How to make things right going forward? We need to look at what is best for the health of this consortium but it is challenging because forces aren't always directed in the same path. The pay-to-play model can help make progress but there will be more challenges in looking forward and investing in making MLML the best it can be for faculty and students. (Stacks, SJSU)
- What menu of services or interactions could be offered? Subsidized model? Variable cost model? Variable cost plus? (Lee, Chair, Gov Board, CSU East Bay)
- With regards to marine ops, fed gov has to receive lowest rate so this may complicate some of these discussions (Prasad, SJSURF)
- It is important to ask if, philosophically, do past/future contributions warrant using our facilities, or providing discounts or differences with in-house or consortium schools vs outside schools? There are currently separate considerations for the consortium and other institutions like MBARI. (Graham, MLML)
- The basic idea of the consortium establishment is that there are other institutes in the CSU system. MLML aquaculture could become a statewide group. MLML should not be restrained, needs agility to respond to change. One of the assets of the consortium are state and fed grants that involve multiple institutions. We don't want anything to come out of this to be an impediment to research and growth. We would like to provide value like enhancing reputation and visibility.
- In terms of moving forward, we may make judgement over what consortium campuses have contributed to get to this point. How will we get to the point to involve CSU campuses, then start involving external people in the pay-to-play model? It would be beneficial to get other campuses that are further from the coast to have access to marine science. (Stacks, SJSU)
- Where would the money from this pay-to-play model be allocated to? I think the end goal of where we want the money to go to should be important to tailoring the pricing. (Bernstein, MLML Student Body President)
- Lindholm asked if nobody played, things would likely just continue on. So what are the actual benefits of this paying-to-play for consortium? Do he and Cheryl have to pay to advise students or is the value of their advising offsetting the cost? (Lindholm, CSUMB)
- It is very different to encourage an institution to use MLML facilities than it is to have them write the costs of using MLML facilities into a grant. How do we encourage researchers to MLML if they have equivalent facilities? Then we have to make decisions; Should MLML allow a researcher we are close with like a CSU or are we

going to choose an outside group like MBARI who we can make money from? This affects the MLML spirit. We don't want collaborators to resent us. (Graham, MLML)

- It is expensive to operate at MLML and the benefits of the pay-to-play model is that MLML has facilities that are underutilized. MLML could be more productive. (Lee, Chair, Gov Board, CSU East Bay)
- The term “pay-to-play” should be replaced, maybe “shared finance model” Thinking about cost recovery for certain services, the library would have an increased workload so would security, safety, etc. People would need to be present to have access to the lab, etc. (Lage, MLML Librarian)
- Do not think of MLML in isolation, right now MLML is being supported by other SJSU students (Dean Kaufman, SJSU)
- It is not good to have the dichotomy of original members vs. CSU. If the goal is more participation than there should be a more equal playing field for campuses to participate. How will campuses participate vs external entities? (Richard, Vice Chair Gov Board, CSU Fresno)
- If everyone has to pay for everything then this could lead to a decrease of participation. (Lindholm, CSUMB)
- CSUs don't pay attention to MLML as well as other marine labs and field stations. She hasn't seen the CSU system make use of MLML. As a system we should think about the expenses of all the marine stations and the attributions that each bring (i.e. specialties, environments, etc.) An entity like COAST should be considered. For impact we should be getting resources for all of the marine stations. (Stacks, SJSU)
- This discussion is about business management. Marine labs can go from one extreme to the other: you get paid, or you pay via grants. We haven't had a “business manager” here to charge people for the services that we provide. This could be beneficial for organization purposes and to have someone business-minded.
- Do other CSU affinity groups receive supplements from CSU directly? Is there a model or discussion where CSU is going to help SJSU maintain funding? Or is everything from SJSU? (Donahue, MLML)
- When the implementation team asked if there was more money at the Chancellors meeting they said no but SJSU hasn't gone individually to ask. (Kaufman, SJSU)

Break: 11:25am – 11:35am

- Recommendation to survey CSU campuses for the top 5 things they want to leverage at MLML so we can direct the conversation to specific things. (Lindholm, CSUMB)
- Outside of consumables, the cost of vessels are already subsidized by SJSU and consortium. Even though we're restricted by OMB, because we are subsidized we can charge a discount rate to consortium. UCSC pays full day rate but a consortium campus could pay a discounted rate. This model could be applied to other facilities. However if you have a grant it would be nice to put full cost on the grant. (Capt. Ackerman, MLML)

- We can have a discussion of what MLML is now and what it could be. Let's have the numbers and the services mature concurrently. Prepare a current list vs an aspirational list for the spring meeting. (Lee, Chair, Gov Board, CSU East Bay)
- Should we offer participation in the survey to other schools outside the consortium? This would give us a larger scope so we will know what other places want from us. (Graham, MLML)
- It would be useful for consortium campuses to ask the question "what value do I currently get out of being in the consortium? Is the amount we are paying a bargain or is it too much? What could you see getting out of this that you are not currently?" It would be beneficial if we don't wait until the next meeting to discuss this. (Lindholm, CSUMB)

**ACTION ITEM:** James Lindholm, CSUMB will take the lead in drafting the survey and instructions. The survey will be sent out by December 6, 2019. Survey responses due February 3, 2020.

### **MLML Governing Board Bylaws**

- The term "MLML" refers to many different things which complicate the Bylaws. We must agree on what we mean when we refer to something. (Dean Kaufman, SJSU)
- The working group tasked the subcommittee to revise the Bylaws. They realized that it is very difficult because they didn't know what the end-game would be. There was little clarity on what the end product should look like so it is difficult to formulate the Bylaws. For example, in the current MLML Bylaws, the Gov Board participates in a leadership role about the review and replacement selection of the director but it is actually overseen by SJSU (the operating institution). (Harvey, MLML)
- The bylaws and operating rules don't reflect what actually happens so we (the MLML Gov Board) aren't doing what we have required ourselves to do due to incremental and slow change due to functionality; Do we need a new set of governing documents? What have we moved away from and why? Is the current practice the right way to do things and should we write them in? We must identify what specific things the documents say and see if it is current practice. This has been worked out amongst the working group but there are some different perspectives between the yes, no, somewhat. We have to decide what is a bylaw and what is an operating rule. This is an opportunity to be productive and constructive. We have to reflect the fact that the degree program is in the bylaws which will exist across multiple campuses. The bylaws refer to a curriculum committee that approves new courses and development etc. We do discuss this but there isn't really a committee for it anymore. We have to decide how to move forward, do we want a smaller group to do it and we all agree with it? If we change this to more of an advisory board, do we vote to change ourselves? The existing bylaws have a few omissions, majority vote isn't laid out. In the past votes were taken on most things. (Lee, Chair, Gov Board, CSU East Bay)
- There are 5 people in working group who will prepare the document and share with the Gov Board for review and approval. (Harvey, MLML)



Motion to vote: Lee, Chair of MLML Gov Board)

Motion seconded by Dean Lawson, CSUMB.

No objections. Passed

**ACTION ITEM:**

- A draft will be finished before spring meeting (Harvey, MLML)
- All parties can look and discuss amongst their own campuses; deadline to comment is March 23rd.
- What can we expect in terms of timeline and format for MOU? (Lee, Chair, Gov Board, CSU East Bay)
- It can be more of a bullet pointed list (Dean Kaufman, SJSU)
- If this is the model we're using we'd like to be aware. (Dean Evans, CSU Stanislaus)

**Director's Report**

**Jim Harvey**

- Death of Pam Roe from CSU Stan announced. She was a friend of MLML and a member of the Gov Board at MLML. Harvey reads memorial piece.
- This is Nick Welschmeyer's last meeting, he's retiring at the end of the year. He advised 24 graduates. His research focused on biological oceanography and recently ballast water projects. He will take emeritus status but will continue research.
- MLML is currently in process of recruiting a new biological oceanographer, 39 applications received, the search committee has selected 4 candidates to interview during the first 2 weeks of December and are hoping to make a choice by the end of the year Professor Hamilton is leading the search.
- There is one place in the Bylaws that talks about the Gov Board doing faculty searches which isn't true. (Kaufman, SJSU)
- Katie Lage, MLML Research Librarian installed an Augmented Reality Sandbox in the MLML-MBARI Library. This is an interactive, augmented reality experiential learning tool
- Diana Steller, MLML Diving Safety Officer was awarded 2019 Naturalist of the year award

**Visiting Scientist**

AY19-20

Dr. Cheryl Logan, Associate Professor in the School of Natural Sciences at CSU Monterey Bay is here for the Visiting Scientist for AY19-20. Cheryl is a member of MLML's Adjunct Faculty and has been collaborating with MLML Faculty and advising students for several years.

AY20-21

Dr. Scott Shaffer, Professor of Biology at SJSU will serve as MLML's visiting scientist during AY20-21. Scott is also an Adjunct Professor with UC Santa Cruz's Ocean Sciences Dept. He



**Fall 2019 Graduate Program Report**  
**MLML Governing Board Meeting**  
**Nov. 15, 2019**

Laurel Lam, Ichthyology/Pacific Shark Research Center

*Geographic and habitat-based variation in Lingcod (*Ophiodon elongates*)  
demography and life history along the U.S. West Coast*

Brijonnay Madrigal, Vertebrate Ecology

*Characterizing the acoustic behavior of odontocete species using passive acoustic  
monitoring in Monterey Bay, the Bering Sea, and the Chukchi Sea*

Cynthia Michaud, Physical Oceanography

*Effects of Phytoplankton Composition and Biominerals on the Episodic Pulses of  
Particulate Organic Carbon to Abyssal Depths*

Alex Olson, Chemical Oceanography

*The biogeochemical behavior and speciation of mercury in the sea surface  
microlayer: implications for transport to watersheds via fog*

Miya Pavlock-McAuliffe, Physical Oceanography

*Sandbar and Shoreline Response to Storm Events: Sunset State Beach (northern  
Monterey Bay, California)*

Elizabeth Ramsay, Phycology

*Morphological variability within *Dictyoneurum californicum* and *Dictyoneurum  
reticulatum* along a wave exposure gradient on the Monterey Peninsula*

## **6. Summer 2019 graduates**

Heather Barrett, Vertebrate Ecology

*Investigating the energetic cost of anthropogenic disturbance on the southern  
sea otter (*Enhydra lutris*)*

Patrick Daniel, Physical Oceanography

*Examining the contribution of wave-induced transport to nearshore chlorophyll-a  
variability in Northern California*

Sierra Helmann, Biological Oceanography

*Resolution of the chlorophyllide a problem in the routine measurement of  
chlorophyll a*

## **7. Spring 2019 graduates**

**Fall 2019 Graduate Program Report**  
**MLML Governing Board Meeting**  
**Nov. 15, 2019**

Tyler Barnes, Geological Oceanography

*Assessing beach variability & shoreline change in Monterey Bay, CA*

Melissa Nehmens, Ichthyology/Pacific Shark Research Center

*Life History of the Southern Lanternshark, Etmopterus granulosus, from the Southwestern Indian Ocean*

Stephen Pang, Ichthyology

*The effect of sex ratio on the reproductive biology of two sex changing fish (Lythrypnus dalli and Rhinogobiops nicholsii)*

Natalie Yingling, Biological Oceanography

*ATP as a Quantitative Proxy for Living Microbial Biomass: Cellular ATP Content Under Stress*

**8. Time-to-degree**

Average time to graduation for the above 18 graduates:

- 9 semesters/4.5 years



## MLML Class Schedule — Spring 2020 semester

Semester begins: Tuesday, January 21, 2020

First day of classes: Thursday, January 23, 2020

Last day of classes: Monday, May 11, 2020

Semester (and Academic Year) ends: Friday, May 22, 2020

Course #	Course Name	Professor	Units	Day	Time	Classroom
MS 131/231	Marine Botany/Biology of Seaweeds	Graham	4	Mondays	9-5	214
MS 143	Chemical Oceanography	Grand	4	Wednesdays	9-5	508
MS 204	Sampling & Experimental Design	McDonald	4	Tuesdays	9-5	202
MS 208	Scientific Methods	Graham/ Harvey	4	Thursdays	9-5	109
MS 263	Data Analysis Techniques	Connolly	4	Tuesdays	9-5	109
MS 272	Subtidal Ecology	Hamilton/ Steller/Kahn	4	Thursdays	9-5	214
MS 274	Advanced Topics: Aquaculture	Gardner	4	Wednesdays	9-5	214
MS 274	Advanced Topics: Population Biology	Kahn	4	Mondays	9-5	109
MS 285 & 274	Seminar & Advanced Topics: Climate Change & Science Communication	Aiello	4	Thursdays	1-5	202

11/7/2019

## MLML State Budget FY 18/19 &amp; FY 19/20 Proposed

		<b>FY 18/19</b>	<b>Actuals as of</b>	<b>FY 19/20</b>	<b>Actuals as of</b>
		<b>Budget</b>	<b>6/30/2019</b>	<b>Proposed</b>	<b>10/31/2019</b>
<b>REVENUE</b>	Salary	1,950,803	1,987,035	2,065,164	538,720
	Benefits	976,490	994,488	976,490	270,155
	<sup>9</sup> OE&E	228,743	228,473	228,743	228,473
	Utilities	275,600	280,287	280,900	96,811
	<sup>2</sup> Salary Recovery / Reimbursement	(25,407)	(51,704)	(25,407)	(15,548)
	<sup>2</sup> Benefits Reimbursement	(18,135)	(36,186)	(18,135)	(9,109)
	Visiting Scientist Support	21,425	21,429	21,425	-
	<sup>16</sup> Other Reimbursement/Support	18,794	24,977	37,880	16,559
	CSUMB Contribution	50,000	50,000	50,000	-
	Prior Year Balance Forward	196,891	196,891	163,107	163,107
	<sup>1</sup> Roll-Forward Encumbrances	-	34,020	-	23,864
<b>TOTAL REVENUE</b>		<b>\$ 3,675,204</b>	<b>\$ 3,729,710</b>	<b>\$ 3,780,167</b>	<b>\$ 1,313,032</b>
<b>SALARIES (Salary \$)</b>					
	<sup>3</sup> Faculty	815,393	782,987	922,320	295,707
	<sup>4</sup> Staff	904,178	914,123	925,944	318,283
	<sup>5</sup> Temporary Faculty	14,330	14,665	-	2,890
<b>SALARIES (OE&amp;E)</b>					
	<sup>6</sup> Visiting Scientist	30,002	30,709	30,000	11,804
	<sup>7</sup> Graduate Assistants	63,700	58,983	63,700	16,513
	<sup>8</sup> Student Assistants	123,200	142,833	123,200	65,132
<b>BENEFITS</b>		976,490	961,755	976,490	261,046
<b>TOTAL SALARIES &amp; BENEFITS</b>		<b>\$ 2,927,293</b>	<b>\$ 2,906,055</b>	<b>\$ 3,041,654</b>	<b>\$ 971,375</b>
<b>OPERATING EXPENSES</b>					
	<i>ADMINISTRATION</i>				
	Taxes / Liability Premiums	1,400	763	1,400	-
	Office Supplies	5,000	3,965	5,000	1,063
	Copiers & Maintenance	8,000	9,455	8,000	4,508
	Furniture/Equipment	2,000	6,949	4,500	3,016
	Postage / Postage Meter Rental	1,605	2,099	1,605	570
	Telecommunications	6,000	5,400	6,000	2,400
	Memberships	5,400	5,400	5,400	100
	Faculty / Staff Recruitment	4,000	-	15,000	1,574
	Startup Funds	52,462	33,679	22,000	22,073
	SeaGrant Position Reimb. (25%)	27,000	27,288	27,000	6,686
	Travel / Training	4,000	2,440	4,000	1,153
	Miscellaneous	2,500	2,327	2,500	149
	Reimbursable Grant/Award Exp.		4,693	-	
	Roll-Forward Expenses		29,781		750
	<b>TOTAL ADMINISTRATIVE EXPENSES</b>	<b>\$ 119,367</b>	<b>\$ 134,237</b>	<b>\$ 102,405</b>	<b>\$ 44,042</b>
	<i>INSTRUCTIONAL SUPPLIES</i>				
	Equipment/Services	18,000	14,565	18,000	2,793
	Aquarium Room Refresh	1,000	878	1,000	
	Class Materials & Supplies	8,000	3,279	8,000	604
	Baja/Chile Course	5,000	1,411	5,000	
	Oceanographic Instrumentation	-	-	-	275
	Miscellaneous	1,000	370	1,000	700
	Roll-Forward Expenses				
	<b>TOTAL INSTRUCTIONAL SUPPLIES</b>	<b>\$ 33,000</b>	<b>\$ 20,502</b>	<b>\$ 33,000</b>	<b>\$ 4,371</b>