



College of the Environment and Life Sciences All Faculty Meeting

Friday, April 24, 2009

2:30 PM

CBLS Thomas M. Ryan Family Auditorium

Faculty & Staff members present: David Abedon, Steven Alm, Christopher Anderson, Kimberly Anderson, Farhad Atash, Peter August, David Bengtson, Colleen Blackwood, Jon Boothroyd, Debra Bourassa, Terry Bradley, Rebecca Brown, Richard Burroughs, Joel Chandlee, Paul Cohen, Geoff Cook, Tracey Dalton, Annie DeGroot, Megan Dyer, David Fastovsky, Katherine Favreau, Graham Forrester, Karen Frost, Leonard Gerber, Howard Ginsberg, Arthur Gold, Marion Gold, Frank Golet, Marta Gomez-Chiarri, William Gordon, Cheryl Grasso, Linda Green, Geoffrey Greene, Thomas Grigalunas, Donna Handley, Elizabeth Herron, Kristy Horan, Niall Howlett, Linda Hufnagel, Thomas Husband, Steven Irvine, Bethany Jenkins, Larry Juda, Gabrielle Kass-Simon, Albert Kausch, Keith Killingbeck, Richard Koske, Christopher Lane, Fred Launer, Chong Lee, Ingrid Lofgren, George Loomis, Seth Macinko, Anthony Malillo, Bruce Marti, Lenore Martin, Pamela Martin, Thomas Mather, Andy Mazurkie, Scott McWilliams, Cynthia Messier, Fred Meyerson, Laura Meyerson, Mike Milkman, Nathaniel Mitkowski, Lenny Moise, Marcia Morreira, Joanna Norris, James Opaluch, Judy Palmer, Gregory Paquette, Martha Patnoad, Peter Paton, Katherine Petersson, Richard Pollnac, Amy Porter, Erin Rainone, Alison Roberts, Cathy Roheim, Becky Sartini, Jeff Seemann, Richard Sheridan, Meredith Silvia, Angelo Simeoni, Mark Stolt, Gongqin Sun, Stephen Swallow, Robert Thompson, Carol Thornber, Emi Uchida, Hiro Uchida, Anne Veeger, Linda Vetovis, Jacqueline Webb, Elissia Wahl, Yeqiao, Cheryl Wilga, Richard Rhodes, Dennis Nixon.

Dean Seemann opened the meeting by congratulating the following CELS faculty who were recently promoted:

Marta Gomez-Chiarri- Promotion to Professor
Richard Sheridan- Promotion to Professor with Tenure
Seth Macinko- Promotion to Associate Professor with Tenure
Brad Seibel- Promotion to Associate Professor with Tenure
David Fastovsky – Promotion to Professor III
Jay Sperry- Promotion to Professor III



The following awards were presented to CELS faculty and staff in recognition of their outstanding contributions to the college's research, teaching and outreach mission.

CELS Research Excellence Award *(presented by Prof. Yeqiao Wang)*

Cheryl Wilga, Biological Sciences

CELS Teaching Excellence Award *(presented by Prof. Fred Launer)*

Geoffrey Cook, Geosciences

CELS Staff Excellence Award *(presented by Erin Rainone)*

Linda Vetovis, Plant Sciences

Debra Bourassa, Natural Resources Sciences

CELS Outreach Excellence Award *(presented by Megan Dyer)*

David Kalen, New England Onsite Wastewater Training Program

Associate Dean Rhodes introduced Col. Lynn Hague and Laura Paton of the RI National Guard who presented an award to Kristy Horan, of the Rhode Island 4-H program, for her outstanding contributions to the Operation: Military Kids program in Rhode Island.

Congratulations to our 2009 award winners and on behalf of the Office of the Dean, thank you for your hard work and commitment to excellence!

MINUTES

Associate Dean Nixon announced that a quorum was present and commenced the Spring 2009 meeting of the College of the Environment and Life Sciences faculty and staff.

1. Motion to approve the minutes of the Fall 2008 CELS All Faculty Meeting:

A CELS faculty member made a motion to approve the minutes of the Fall 2008 CELS All Faculty Meeting. Peter Paton seconded the motion.

2. Curriculum Committee Report (L. Martin)

Committee Members: Lenore Martin, Chair, CMB; Len Gerber, NFS; Peter Paton, NRS; Thomas Grigalunas, ENRE; Richard Pollnac, MAF; Alison Roberts BIO; David Fastovsky, GEO; Anthony Mallilo, FAVS; Richard Sheridan, LAR; Larry Englander, PLS; Dennis Nixon, Dean's Off. (ex officio).

Lenore Martin presented the Spring 2009 Curriculum Committee report (per attachment I.) Dave Bengtson made a motion to approve; Linda Hufnagel seconded the motion.



3. Selection of Faculty Senators (D. Nixon)

Ballots were handed out to the CELS Faculty, who were asked to vote for two out of the three nominees for the 2009-2012 term to the Faculty Senate. Associate Dean Nixon thanked Graham Forrester, Len Gerber and David Fastovsky for their service. We went from three senators to two this year. Three faculty members have been nominated to fill two open slots, so we will go to a ballot vote to determine who will fill the two slots.

Tom Husband (NRS), Brian Savage (GEO) and Ingrid Lofgren (NFS) were nominated. Profs. Husband and Lofgren were elected to serve on the Faculty Senate.

On behalf of Prof. Jim Kowalski of the Department of Computer Science, Associate Dean Nixon reminded faculty to ask their students to fill out the electronic SET's. Only 30% of CELS students have taken the online survey.

4. College Reorganization (J. Seemann, D. DeHayes)

Dean Seemann expressed his appreciation for everyone's participation in the reorganization process. He noted how the college has evolved over the years from a College of Agriculture to an incredibly diverse collection of faculty and disciplines. The discussion of reorganization has been about the faculty's vision for research and scholarship and about being in the best position to take on the challenges of our planet. Dean Seemann recognized the tremendous amount of work that our faculty and Executive Council have put into this. Dean Seemann also recognized that the process has caused angst. He thanked the chairs profusely for all their hard work and further noted that they have all by far earned their chair stipends.

Dean Seemann posed the question- what is the right organization for the future? At this point in the process, we do not want to lose the ground we have made. We want to give faculty every opportunity to make efficient use of their time, in all facets of research, teaching and outreach. Today's discussion will focus on our graduate and undergraduate programs, which is not only our core business, but also something we should constantly revisit.

Associate Dean Nixon briefed the faculty on how the meeting would be run. All faculty were sent the language of the motions to be voted on over the listserv. Each reorganization subcommittee chair will make independent presentations and present the faculty with a motion for their vote. Associate Dean Nixon will moderate the discussion. He further reminded the faculty that the Provost, who will be joining us shortly, has been kept abreast of all of our progress.

Provost Don DeHayes arrived and took the floor. Faculty are well aware of the fiscal issues of the university, which has prompted the RI Board of Governors for Higher Education (RIBOG) to take a closer look at all the academic programs offered by the university. Now has come the time to take care of the plethora of majors offered at URI, 70 of which fall below the low enrollment criteria of the RIBOG, and half of which belong to this college. Provost DeHayes clarified that we are not necessarily talking about getting rid of departments. Provost DeHayes asked rhetorically, why are we taking this on now? This has partly been prompted by the RIBOG mandates, partly by the budget



crunch, and partly by the general need to clean up the books, but mostly, it is about positioning us for the future and building faculty and our resources as thoughtfully and artfully as we can. How do we build better programs? The life sciences are growing here at URI and nationally. Many universities are struggling image wise. This is an opportunity to focus what we do. We have many majors that graduate 3-5 students. It's about rethinking those majors. RIBOG has revised the process used to evaluate low enrollment majors. Low enrollment majors fall into 3 categories: 1) suspended and leading to elimination; 2) consolidated; and 3) those that need justification to keep and a strategy for how to strengthen them.

Provost DeHayes noted that academia is not a place for complacency; and that we need to utilize the brilliance of our faculty to harness the process of change. He commended CELS for jumping into this process with two feet.

Provost DeHayes opened the floor to questions.

Prof. Ruemmele asked, what are the 35 majors that are under enrolled? Provost DeHayes responded that he could not list them off the top of his head, but that this counts both undergrad and grad programs. It is important to keep in mind that we can strengthen our grad programs, by increasing the number of students in our programs. We live in an interdisciplinary world, and can best train our students by educating them in broad fields. We need to create a critical mass of Master's and Ph.D. students who will relate to each other and build vibrant programs in the future that will facilitate these kinds of interactions and learning experiences beyond the classroom.

Prof. C. Anderson asked how we might we measure strength in our programs? Provost DeHayes responded that vibrant programs find ways for cohorts of students to take up-to-date classes together and work closely with faculty. Classes in the library, the classroom and in the field, create collaborative learning opportunities. We need to pull students together into larger groups and create critical mass. We must also invest in areas of strategic emphasis, productive, efficient programs and make those investments through colleges to departments.

Prof. F. Meyerson asked about interdisciplinary majors across colleges. The Provost responded that these are the kinds of programs that will drive the college into the future. Environmental science and policy might include engineering, communications, and business in discussions. The question is how to design that between colleges? The Provost further advised the right approach is to have these conversations first within the college. A student could potentially enroll in a major and matriculate through three colleges.

Prof. Y.Q. Wang noted that a low enrollment number today may be a larger number tomorrow. How do we manage this? Provost DeHayes noted that he went through the reorganization process as Dean at UVM. The key is to create flexibility and to position ourselves, without having to go through the motions. Another key is to tap into the fundamental expertise of the faculty to attract research dollars and to position us well with graduate students.

Prof. G. Sun asked if we are worse than other universities in our low retention rate. Provost DeHayes responded that our retention rate issues are not as much of a cost issue, but a value issue. Our current



curriculum is organized in a way that students don't get exposed to our faculty's brilliance until their sophomore and junior years. We need to move the value up front to capture these students and so that their parents see the value within the first year.

Prof. S. Swallow spoke about robust undergrad enrollment. Our student body has increased 20%. With the ratio of in-state/out-of-state tuition, could some of that money go into graduate student tuition waivers or faculty positions? Provost DeHayes responded that yes, there is the potential. The future will not be driven by state appropriation. This year has been full of wild cards. We are running about 10% ahead of last year's enrollment numbers. UVM was down 20% in enrollment, and they are very much a tuition-driven university. Right now we are running about 9% ahead in out-of-state enrollment. The Provost noted that he and his staff are continuing to work on pieces of the budget.

Presentation by Graduate, Research and Outreach Reorganization Subcommittee
(Subcommittee Members: C. Anderson, P. Cohen, M. Gold, M. Gomez-Chiarri, G. Greene, S. McWilliams (chair), D. Bengtson (ex officio).)

Prof. Scott McWilliams presented the report of the grad, research and outreach reorganization subcommittee (attachment II).

Prof. S. McWilliams noted that this proposal consolidates 19 grad programs down to 9.

Prof. S. McWilliams presented the motion to the faculty. Profs. Husband and Fastovsky seconded and the floor opened to discussion.

These titles are not set in stone. This proposed organization of majors brings the numbers up to meet RIBOG requirements for critical mass.

It was asked if the committee talked about marketing strategies and the role of the graduate school. The committee noted that the next step forward will be a midterm goal. Prof. M. Gomez-Chiarri noted the importance that the names are not changed right away. Prof. C. Anderson also noted that these degrees are specialty degrees. The discussion focused on non-research degrees, as well as the research degrees that will be needed for research assistantships and teaching assistantships. With additional research dollars there is the potential to bring in more students.

Prof. R. Brown noted that she does not see agriculture within any of the research areas. We have an entire department who are wondering where they fit in. Prof. McWilliams replied that this design has built in flexibility to grow degree programs.

Prof. Opaluch noted that the word endorse conjures up fear. Endorse doesn't mean that it's cast in stone. It is important to highlight the flexibility and that we need to make adjustments to our trajectory.

Prof. S. McWilliam stated that there will be more opportunities to make arguments, as this is far from approval and being set in stone. We need to have a framework of ideas and faculty buy-in throughout the process. This still has to go to the FacSen, Provost and the RIBOG. By taking this



step, we are satisfying the RIBOG's deadline for action while we continue the process of achieving maximum efficiency.

Prof. Dalton asked, what is the next immediate step? Prof. S. McWilliams indicated that the reorganization committee will construct a framework and decide on a process toward implementation. Perhaps we will bring in some outside facilitation. Right now, we need to think about what kinds of grad programs we want to have, and take advantage of institutional memory. Let's not get hung up, this is an important first step.

Prof. F. Golet wondered how convincing this will be to the RIBOG. What are the primary ways to increase the numbers? As of last Friday's Executive Council meeting, MAF was linked up with ENRE.

In closing, Prof. S. McWilliams noted that we are pushing the process forward and faculty will continue to be fully involved. We anticipate it taking about a year to get the changes in the catalog.

5a. Motion to endorse the Graduate Degree and Program Structure

Associate Dean Nixon called the question. The majority of the CELS faculty voted in favor of the motion.

6. Undergraduate Reorganization Subcommittee (*Subcommittee Members: D. Fastovsky, N. Mitkowski, T. Husband, J. Sperry, R. Sheridan, J. Webb (chair, C. English (ex officio.)*)

Prof. Webb took the podium and thanked her fellow committee members, all of whom who worked very hard. Prof. Webb proceeded to present the undergrad reorganization plan, as per attachment III.

Prof. Webb noted that we have accomplished many things, but there is still more to do. We have to think about what steps we need to take next, such as identify foundation courses that have both breadth and depth. Prof. Webb expressed the importance of a web presence and that effective marketing is key. A great example is the new marine bio website, which has been a huge success.

6a. Motion to endorse the Undergraduate degree structure

Dr. Webb presented the motion to the faculty. Prof. Mallilo seconded and the floor opened for discussion.

Prof. Ruemmele asked for clarification on the difference between plant and horticultural sciences? Horticulture is a subset of plant sciences. If we vote yes, does it preclude changing the names of majors? Prof. J. Webb noted that the answer is no, the names are subject to conversation. Options can be added to these proposed majors. Prof. Webb also noted that she confirmed with Jack Humphrey that degree names would appear in transcript along with options. In PeopleSoft, this would appear as a sub plan.



Prof. J. Webb indicated that just because we vote yes, it doesn't mean it is cast in stone. This grouping of 12 satisfies the RIBOG requirements, but when we iron out the details it will look different.

How will we end up with core courses for both natural and social sciences? Prof. S. Swallow offered a friendly amendment to the proposed degree structure in which ENRE becomes its own major. The reorganization subcommittee had no representation from the social sciences. Could we explicitly list the 13th major as Environmental Economics and say that ENRE will cooperate with other majors. Green economy is a huge new focus, which promises increased interest in the future. Take it on faith that we will ENRE will work with other majors in a constructive manner?

Prof. S. Swallow made a motion to include Environmental Economics as the thirteenth major. The motion was seconded by Opaluch and Pollnac. Prof. Bengtson reminded the faculty that the RIBOG is calculating enrollment and degree conferral based on the last 3 years of data.

Prof. A. Veeger noted that this is not set in stone and that we will continue to look at separate degrees, options and cross-pollinating majors. We still have time to decide how to set it up. We will lose the opportunity to talk interdisciplinary if we fragment it too much at this point in time.

Prof. A. Gold strongly endorsed the amendment from Prof. Swallow. Routinely economics is a strong major at other universities. There are great opportunities to link up with the business school. This is a strong group. The concept of environmental economics is the embodiment of what the college is doing and where the world is going right now. Prof. Meyerson opposed the amendment, noting that it is untimely.

Associate Dean Nixon called the question. After a close call on the vocal vote, Assoc. Dean Nixon asked for a standing vote. 23 voted in favor of Prof. Swallow's amendment, 30 opposed; the amendment failed.

The discussion returned to the main motion. Prof. Gordon inquired about our student interests? Why is the MAF BA being proposed instead of the BS? Prof. Pollnac responded that was based on the merger of the two degrees and that we would decide which one it would be. Combine the major, and editorialize later.

Prof. L. Martin posited that the college is approving these majors as described in the proposal, but the names are subject to fine tuning.

Prof. N. Mitkowski noted to the faculty that the package that we submitted as a committee is very extensive.

Associate Dean Nixon noted that our deadline to the RIBOG was two weeks ago. Prof. Webb clarified to the faculty the other recommendations in the UG report (Attachment IV).



Prof. Veeger clarified the fate of the current majors; there will be no diminished recruiting into our current majors. We can still bring people into our programs as this process takes place. We are trying very hard to maintain normalcy, but we need to think about new plan and implementing that plan as soon as possible.

Prof. S. Swallow asked if the RIBOG will look at this list of majors and suspend enrollment to our current majors? We will be reporting these actions with our plan for moving ahead. We need to show we are moving forward in the direction they want to go.

Prof. F. Golet inquired about whether a positive vote on the motion would commit the college. Prof. F. Golet stated that we want to make sure that all of our majors feel comfortable where they are. Presented here is an outline. When we get into negotiations, it will look different. Today, we are satisfying a mandate. It is possible to see the 13th major. Associate Dean Nixon expressed confidence that we will accomplish this goal.

Assoc. Dean Nixon called the question; and the CELS faculty almost unanimously voted in favor.

The CELS Executive Council will continue the process of reorganization with faculty involvement.

The meeting adjourned 4:53 PM.

TO: CELS Faculty

FROM: Lenore M. Martin, CMB
Chair, CELS Curriculum Committee

DATE: April 20, 2009

RE: CELS Curriculum Committee Report

Below you will find a copy of the CELS Curriculum Committee Report. The report will be presented at the April 24th College meeting. If you have comments, questions, or corrections, or would like additional information, please contact Lenore Martin (martin@uri.edu 4-5049).

CELS Curriculum Committee Report
April 24, 2009 CELS College Meeting

Members – 08-09. Chair Lenore Martin, CMB; Len Gerber, FSN/NFS; Peter Paton, NRS; Thomas Grigolunas, ENRE; Richard Pollnac, MAF.; Alison Roberts BIO; David Fastovsky, GEO; Anthony Mallilo, FAVS; Richard Sheridan, LAR; Larry Englander, PLS; Dennis Nixon, Dean's Off. (ex officio).

The following actions were approved by the CELS Curriculum Committee and forwarded to the Graduate Council Curriculum Committee and/or the Faculty Senate Curriculum Committee:

New Courses Approved

AVS505*	3 credits/3 Lec	Advances in Animal Science
BCH211	3 credits/3 Lec	Biochemical Aspects of Nutrition and Physiology
BIO263X	1 credit/1 Rec	Introductory Ecology Recitation
BIO412-512*	4 credits/3 Lec, 3 Lab	Evolution and Diversity of Fishes
BIO480-580*	3 credits/3 Lec	Community Ecology
NFS440*	3 credits/3 Lec	Macronutrient Metabolism
PLS415*	2 credits/2 Lec	Plant Plagues: Causes and Consequences
EEC350	4 credits/3 Lec, 1 Rec	Energy Economics, Environment, and Policy
NFS515X*	2 credits/1 Lec, 1 Lab	Interdisciplinary Research in Nutrition

*also approved by Graduate council for graduate credit

Deleted Courses.

None

Other Approved Changes.

CLS-CMB	MS course requirements and staff revised – One Specialization “Medical Laboratory Sciences” will now include Clinical Chemistry, Clinical Microbiology, and Hematology/Immunohematology. Add a new specialization in “Public Health Laboratory Sciences”. No new courses are required. EDC505 or 529 or 582 or 583 or 584 is eliminated as a core requirement to give students more flexibility in program development. Cytopathology Specialization remains unchanged. Minor specialization in adult education will continue to require four of the five EDC courses listed above. The nine courses required for the other specialties will now be selected from the following list: (1) Biotechnology: BIO 437, MIC 422 and 534, and MTC 501, 541, 571, and 594 (2) Medical Laboratory Sciences: BIO 437, MIC 534 and 538, MTC 501, 502, 520, 530, 541, 543, and 591 (3) Public Health Laboratory Sciences: MIC 534 and 538, MTC 501, 541, 591, and 594
ENRE	PhD course requirements revised - EEC527 (ECN527) no longer required.
LAR	Undergraduate course requirements for Landscape Architecture revised - LAR302 and LAR450 are now required, not elective courses, the major now has 61 credits of required coursework and this concurrently reduces the number of electives from 12 to 8 credits.
AFS486	Name change from “Applied Physiology of Fish” to “Fish Physiology”
BIO321	Change credits from 3 to 4 (Lec 3, Lab 3).
BIO365-465	Change course number/level from 465 to 365 to fit in better with similar courses (Lec 3, Lab 3).
EEC595	Change credits from 3 to 4 (Lec 4).
MAF312	Remove MAF100 as a prerequisite.
MTC195	Change credits from 4 to 5 (Lec 3, Lab 4).
NRS223	Name change from “Conservation of Populations and Ecosystems” to “Conservation Biology”. Change credits from 3 to 4 (Lec 3, Lab 3).
PLS301	Change credits from 3 to 4 (Lec 3, Lab 3).
PLS306	Change credits from 3 to 4 (Lec 3, Lab 3).
PLS331	Change credits from 3 to 4 (Lec 3, Lab 3).

Respectfully Submitted,
Lenore M. Martin, CMB, Chair CELS Curriculum, Committee



Appendix II

Motions to Be Voted on at CELS All Faculty Meeting

5a. Motion to endorse the graduate degree and program structure distributed by the Graduate, Research and Outreach Committee and endorsed by the Executive Council on April 17th, 2009.

Ph. D. degree in Environmental Economics and Marine Affairs

Ph.D. degree in Biological and Environmental Sciences

M.S. degree in Environmental Economics (EEC)

M.S. degree in Biological and Environmental Science

M.S. degree in Nutrition and Dietetics (NAD)

M.A. in Marine Affairs (MAF)

Master of Marine Affairs (MMA, including an MMA/JD option)

Master of Environmental Science and Management (MESM)

M.S. in Clinical Laboratory Science (CLS)

6b. Motion to endorse the undergraduate degree structure as distributed by the CELS Reorganization Advisory Committee on Undergraduate Programs and endorsed by the Executive Council on April 17th 2009.

(12 Undergraduate Majors: Similar to Model B in final report, but modified by CELS Exec. Council on April 17, 2009)

1. BS Biology (with options)	(373 majors/ 63 grads each year)
2. BA Biology	(161 majors/ 22 grads each year)
3. BS Marine Biology (with <i>new</i> options, AFS Certif.)	(245 majors/ 35 grads each year)
4. BS Cell and Molecular Biology	(60 majors/ 20 grads each year)
5. BS Clinical Lab Sciences (accredited, with options)	(93 majors/ 14 grads each year)
6. BS Animal Science	(212 majors/ 36 grads each year)
7. BA Marine Affairs	(89 majors/ 19 grads each year)
8. BS Environmental/Earth Sciences & Management (with <i>new</i> options)	(162 majors/ 18 grads each year)
9. BS Wildlife and Conservation Biology (WS Certif.)	(90 majors/ 21 grads each year)
10. BS Plant and Horticultural Science	(63 majors/ 22 grads each year)
11. BLA Landscape Architecture (accredited)	(72 majors/ 18 grads each year)
12. BS Nutrition and Dietetics (accredited, with options)	(192 majors/ 32 grads each)

6a. Motion to endorse the Executive Council to continue the reorganization process: In light of the newly endorsed undergraduate and graduate degree structures, CELS faculty appoint the Executive Council to continue the process of college reorganization.

The GROC

Graduate Research & Outreach Committee (GROC):
Chris Anderson, Paul Cohen, Marion Gold,
Marta Gomez-Chiarri, Geoff Greene,
Scott McWilliams (Chair), Dave Bengtson (ex officio)

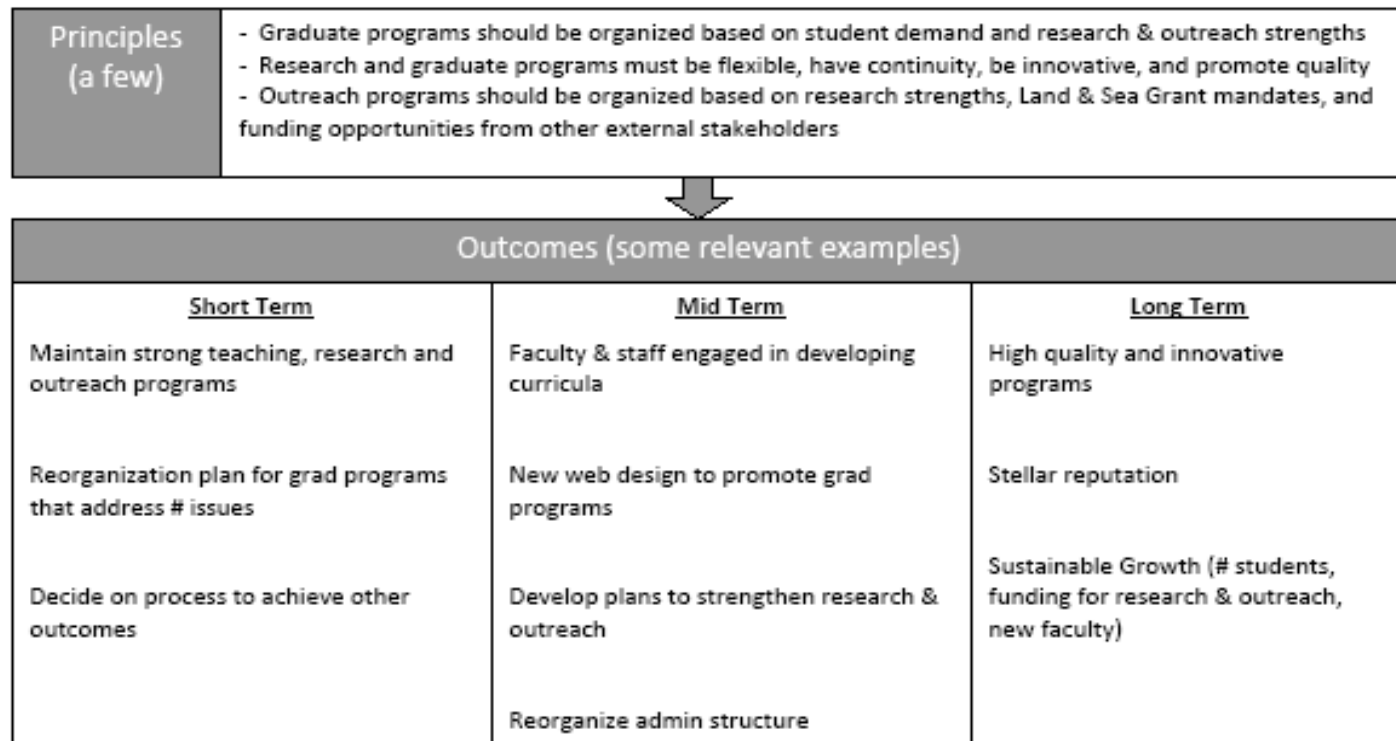
CELS Grad Programs: the foundation

- Strong research base (YTD – March 09 - \$17.3 million; GSO YTD – \$19.1 million)
- Effective partnerships add value:
 - experiential learning opportunities for grad students
 - address global, state & local problems/issues
 - integrated training in research & outreach
 - funding for grad students & research
- Increasing demand for advanced training in environmental & life sciences

CELS Grad Programs: Challenges

- Dec. 2009, Provost and BOG will eliminate low enrollment programs
- **Only 5 of 19 CELS grad programs had > 6 grads/yr over last 6 years**
- Improved coordination and integration will make CELS Grad Programs more effective and attractive to students

CELS GROC Reorganization Process



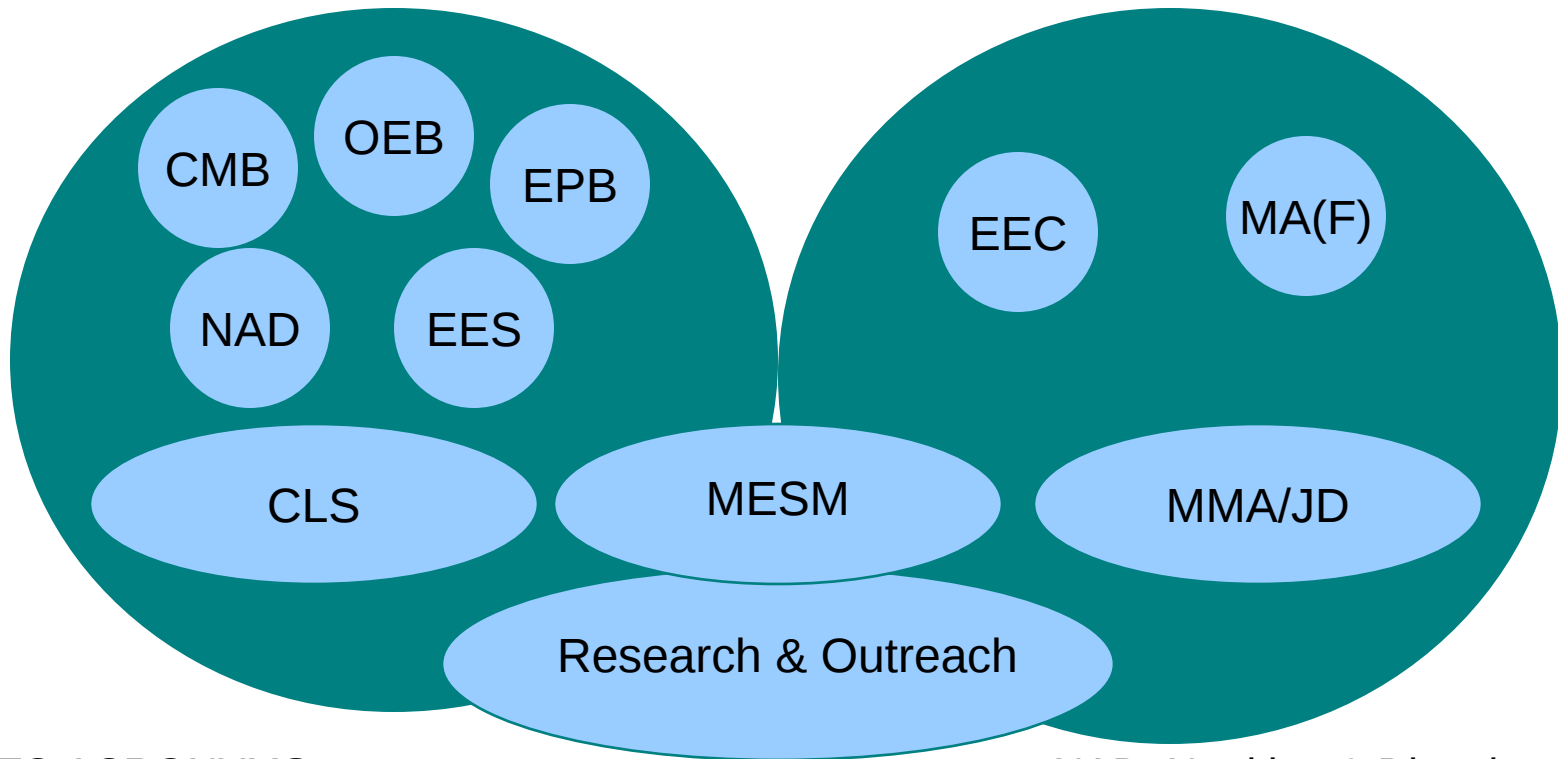
GROC Recommendations

- 2 PhD Degrees
 - Biological & Environmental Sciences
 - Environmental Economics & Marine Affairs
- 4 MSc thesis or MA Degrees
 - Biological & Environmental Sciences (MSc)
 - Environmental Economics (MSc)
 - Nutrition & Dietetics (MSc)
 - Marine Affairs (MA)
- 3 Masters non-thesis Degrees
 - Clinical Lab Sciences
 - Masters in Environmental Science & Management (MESM)
 - Masters in Marine Affairs/JD (w/RWU)

CELS Graduate Degrees & Programs

PhD & MSc Degree in
Biological & Environmental Sciences

PhD & MSc Degree in
Environ. Econ. & Marine Affairs



KEY TO ACRONYMS:

CMB: Cell & Molecular Biology

OEB: Organismal & Evolutionary Biology

EPB: Ecology & Population Biology

EES: Environmental & Earth Sciences

NAD: Nutrition & Dietetics

EEC: Environmental Economics

MAF: Marine Affairs (MA & MMA)

CLS: Clinical Lab Sciences

MESM: Environmental Science & Mgt

Dept	Degree	Level	2005-06	2006-07	2007-08	MEAN
CMB	CLS	MS	23	34	23	27
EVS	EVS	MS	10	11	8	10
CPL	CPL	MS	17	5	1	8
MAF	MMA	MS	8	5	8	7
MAF	MA	MS	6	5	6	6
FAVS	FISH	MS	4	8	4	5
BIO	BIO SCI	MS	3	6	5	5
NFS	DIET	MS	2	10	2	5
MESM	MESM	MS	5	6	2	4
ENRE	ENRE	MS	2	5	4	4
CMB	CMB	MS	2	2	2	2
MAF	MMA/JD	MS	2	1	3	2
ENRE	ENRE	PHD	5	1	4	3
EVS	EVS	PHD	4	5	0	3
CMB	CMB	PHD	5	0	0	2
CMB	BIOCHEM/PHY	PHD	3	0	1	1
NFS	NFS	PHD	1	0	2	1
MAF	MAF	PHD	0	1	2	1

PhD & MSc Degree in
Biological & Environmental Sciences

PhD & MSc Degree in
Environ. Econ. & Marine Affairs

Graduate Programs (focus of curriculum, field experience, seminars)

CMB

OEB

EPB

EES

EEC

MAF

CMB

OEB

NAD

EPB

EES

EEC

MAF

CLS

MESM

MMA/JD

CELS Research & Outreach Ventures

 = PhD thesis programs  = MSc thesis programs  = MA thesis program  = non-thesis programs

*Underlined are the proposed 8 CELS Graduate Degrees

KEY TO ACRONYMS:

CMB: Cell & Molecular Biology

OEB: Organismal & Evolutionary Biology

EPB: Ecology & Population Biology

EES: Environmental & Earth Sciences

NAD: Nutrition & Dietetics

EEC: Environmental Economics

MAF: Marine Affairs (MA & MMA)

CLS: Clinical Lab Sciences

MESM: Environmental Science & Mgt

CELS Grad Programs: Achieving excellence

Immediate goals:

- Solve problem: low-enrollment programs
- Maintain strong teaching, research, & Outreach programs
- Adhere to the following principles:
 - continuity, innovation, quality

Next steps:

- Develop curricula for grad programs
- New web design to highlight programs
- Develop plans to strengthen Research & Outreach programs

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- Develop curricula for grad programs
- New web design to highlight programs
- Develop plans to strengthen Research & Outreach programs

Final outcomes:

- High quality and innovative programs
- Excellent reputation in core areas
- Sustainable growth (# students, funding for research/outreach, new faculty)

CELS Reorganization Advisory Committee – Undergraduate Programs (CRAC-UP)

David Fastovsky (GEO)

Nathaniel Mitkowski (PLS)

Tom Husband (NRS)

Jay Sperry (CMB)

Richard Sheridan (LAR)

Cathy English (NFS, Executive Council rep.)

Jackie Webb (BIO, Chair)

Challenges

GOAL: Enhance excellence, increase efficiency, increase faculty time...(edit)

1. Reduce low enrollment majors by eliminating or consolidating low enrollment majors. The Provost suggests evaluating undergrad majors graduating fewer than 10 students per year (to address B of G concerns).
2. Reduce number of courses offered, transition to 4-credit course model.
3. Strategic management of course sizes: establish a viable and efficient plan for class size management for each department (e.g., increase course sizes where possible)
4. Standardize the number of credits to graduate for almost all majors: Move to a 120-credit model for graduation for standard for undergraduate majors.

Opportunities to Be Had

- Communication and Collaboration:
 - Among faculty (!!)
 - Between faculty and students
 - Among faculty, students, Admission and Career Center (recruiting, success stories)
- Innovation:
 - New majors, enhanced/revised majors
 - Interdisciplinary thinking (outside the box)
- Ultimate Goal: To Promote Excellence Among All Academic Programs to Enhance Student Success

Charge to the Committee – 2/25/09

We need to recommend:

1. A series of majors to prepare our students for the next 10-20 years, based on existing strengths and projected future areas of excellence, that will attract new students.
2. Options within majors, as appropriate.
3. Ideas for core curricula, as appropriate.
4. An advising structure.
5. Ways to meet the new requirements for 120-credit programs and incorporate 4-credit courses.

Majors offered should ensure that we meet needs of students who are:

- pursuing professional training for a discipline-based field
- using a degree as a springboard to advanced study (e.g., graduate school, law school or medical school)
- pursuing a liberal education.

The Process since March 1, 2009

- Held 8 committee meetings (and in addition, Chair attended several Exec. Council meetings)
- Distributed preliminary report to faculty (3/9/09).
- Discussed feedback to preliminary committee report received from ~15 CELS faculty via e-mail
- Held an Open Forum (4/10/09; 36 faculty in attendance); resulted in modifications to committee report. Minutes distributed to faculty.
- Final Committee Report (4/17/09):
 - distributed to faculty
 - accepted by Executive Council, with minor modifications made to list of majors (April 17)

Table 1. Number of awarded degrees based on data from Provost's Office. Based on BOG criteria, majors with <11 degrees awarded annually (shown in red) for three consecutive years. Majors in red shaded area are subject to BOG review. (Courtesy of Peter Paton)

Dept	Major	2005-06	2006-2007	2007-08	MEAN
BIO	BS	65	56	68	63.0
FAVS	ANIMAL SCI	35	33	40	36.0
NFS	DIET	25	30	42	32.3
BIO	MARINE BIO	21	22	33	25.3
BIO	BA	23	25	19	22.3
PLS	ENVI HORT	16	22	26	21.3
NRS	WILDLIFE	22	22	19	21.0
CMB	MICRO	14	22	24	20.0
LAR	LDA	14	15	19	16.0
CMB	CLINIC LAB SCI	9	14	20	14.3
MAF	MAR. AFFAIRS - BS	15	12	7	11.3
NRS	ENVIR SCI	14	5	12	10.3
FAVS	AQUA -FISH TECH	13	8	9	10.0
MAF	MAR. AFFAIRS- BA	9	7	7	7.7
ENRE	RES ECON COMM	2		4	3.0
GEO	GEOSCIENCE	2	3	2	2.3
ENRE	ENVI ECON MAN.	1	1	5	2.3
GEO	GEOL -OCEAN	2	1	2	1.7

Proposed UG Majors

1. **BS Biology** (373 majors/ 63 grads each year)
2. **BA Biology** (161 majors/ 22 grads each year)
3. **BS Marine Biology** (with new options; AFS Certif.) (245 majors/ 35 grads each year)
Incorporates "Aqua-Fish Tech"
4. **BS Cell and Molecular Biology** Formerly "Microbiology" (60 majors/ 20 grads each year)**
5. **BS Clinical Lab Sciences** (accredited, with options) (93 majors/ 14 grads each year)
6. **BS Animal Science** (with options) (212 majors/ 36 grads each year)
7. **BA Marine Affairs** Consolidates two majors (89 majors/ 19 grads each year)
8. **BS Environmental/Earth Sciences & Management**
(with new options) Incorporates 2 ENRE & 2 GEO majors (162 majors/ 18 grads each year)
9. **BS Wildlife and Conservation Biology** (WS Certif.) (90 majors/ 21 grads each year)
10. **BS Plant and Horticultural Science** (63 majors/ 22 grads each year)
11. **BLA Landscape Architecture** (accredited) (72 majors/ 18 grads each year)
12. **BS Nutrition and Dietetics** (accredited, with options) (192 majors/ 32 grads each year)

Course requirements and options to be determined by faculty aligned with each major

** based on numbers for current Microbiology major

Immediate Results of Proposed Major Structure

Satisfies mandate by Provost and Board of Governors:

- 30% reduction in # of majors (17 → 12), with enrollments above threshold based on current data.

Answers the Committee's Charge:

- Proposed majors build on existing strengths, incl. successful, high visibility majors
- These larger, more robust majors with options will allow curricula to evolve as needs change in the future.
- Proposal allows continuing innovation and evolution:
 - o Possibilities for experiential learning (beyond laboratories), capstone courses, interdisciplinary opportunities.
 - o Minors and Honors Program courses as incubators for interdisciplinary undergraduate experiences.
 - o Enhanced advising and career counseling

As the process continues.....

1. Develop novel and/or improved curricula for all majors:
 - Identify foundation courses, and both breadth and depth within each major.
 - Identify “options” (“*sub-plans*”) that provide depth of knowledge within majors to best serve our students and acknowledge strengths among faculty.
 - Maintain flexibility and an eye toward the future
2. Support all majors with an effective and efficient advising structure to enhance student success.
3. Establish web presence and effectively marketing all of our majors and programs to enhance program success.

The NEXT STEPS (*as details of majors are defined by faculty*):

Reduce number of courses offered, transition to 4-cr. course model.

Establish strategic management of course sizes: establish a viable and efficient plan for class size management (e.g., increase course sizes where possible)

Standardize the number of credits to graduate (from 130 to 120 cr.) for almost all majors.

The Motion: Proposed UG Majors

1. BS Biology	(373 majors/ 63 grads each year)
2. BA Biology	(161 majors/ 22 grads each year)
3. BS Marine Biology (with <i>new</i> options; AFS Certif.)	(245 majors/ 35 grads each year)
4. BS Cell and Molecular Biology	(60 majors/ 20 grads each year)**
5. BS Clinical Lab Sciences (accredited, with options)	(93 majors/ 14 grads each year)
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** based on numbers for current Microbiology major

Course requirements and options to be determined by faculty aligned with each major