Chairs' & Center Directors' Meeting Minutes

Date: November 17, 2014 (12:00 to 2:00 pm)
Location: WCH – Room 443
Attendees: Abbaschian, Reza
Aguilar, Guillermo
Balandin, Alex
Barth, Matt
Bhanu, Bir
Boretz, Mitch
Farrell, Jay
Garay, Javier
Haddon, Robert
Hartney, Pat
Lonardi, Stefano (for Marek)
Matsumoto, Mark
Ravi
Vafai, Kambiz
Venkatram, Akula

Absent: Chrobak, Marek
Myung, Nosang
Najjar, Walid
Tan, Sheldon
Wang, Albert

The agenda for the meeting is shown in Appendix 1.

1. Welcome and call for agenda items - Reza
Reza welcomed Prof. Venkatram to the meeting. Venky is representing BCOE's Executive Committee and will provide Academic Senate input to the Chairs/Directors meetings. Reza noted that many documents go to the Academic Senate but are not directly distributed to UCR faculty.

Ravi reported on the recent UCR meeting to discuss the possible combination of CNAS and CHASS. Many faculty in attendance at this meeting were skeptical and questioned the benefits of combining colleges. The Provost plans to make a quick decision. Lastly, it was noted that combining colleges doesn't appear to directly support UCR's AAU goals.

Pat added the topics off BCOE Faculty Retreat and Facility Tours to the agenda.

2. Approval of Minutes - Pat
The minutes of the November 3rd Chairs/Directors meeting were unanimously approved.

3. Department and Center Updates
MSE: Javier reported that the SHINES program held its kickoff meeting on Saturday. There are 15 university SHINES participants including the University of Texas, UCLA and the University of Maryland.

POEM: Alex added that a future SHINES meeting will be held in Palm Springs, at the Mission Inn or at UCR's center in Palm Desert.

CE-CERT: Matt reported that the candidate for the joint CE-CERT/School of Medicine research position declined our offer at the last minute. Also, CE-CERT hosted Riverside's EV Ride and Drive event last weekend. This event was co-sponsored by the Charge Ahead California campaign, and CALPIRG UCR student chapter. There were 100-200 attendees that drove a selection of EVs. This will likely be an annual event. Reza added that there is interest in China in partnering with CE-CERT researchers to undertake smog projects. Their initial interest is in small-scale smog control devices.

WCGEC: Reza met with Winston Chung on his recent visit to China. Winston is generally pleased with our joint efforts but stressed the need for deliverables from prior funded projects. Matt added that CE-CERT researchers will be proposing energy efficiency projects in partnership with local water districts.

BIEN: Bir reported that the department's senior faculty search is continuing. There are 10 applications so far. He recently met with a possible candidate from another institution. He noted that there are 110 Bioengineering departments across the nation competing for faculty. The University of Illinois is searching for faculty to fill 35 endowed chairs in Bioengineering. Also, about 6-7 BIEN faculty will be reviewed this year. It was decided during BIEN's off-site meeting that the department Chair will present each tenure case. Lastly, a recommendation from BIEN's off-site meeting was to increase its computational capabilities.

CRIS: Bir reported that he recently participated in a site review for Northwestern University's proposal for a ($40M) Engineering Research Center. Four Centers will be awarded from this competition. Also, he recently attended an NSF meeting on cyber-physical systems.

CNSE: Robert reported that Georgia Tech may reconstitute its MSREC effort into a small-scale center. Mitch added that the STC pre-proposal deadline is 12/11/14. There are two STC letters of interest being processed at UCR (in Genomics and Catalysis).

ECE: Jay reported that two Target of Excellence faculty candidates are being evaluated (one jointly with CSE; one jointly with CEE).

CSE: Stefano reported that department faculty are submitting several NSF proposals.

ME: Guillermo stated that the department is evaluating applications for two faculty positions. Also, a new Machine Shop Manager has been hired. ME will soon be listing its machine shop services on its website.

MSOL: Kambiz noted that the new ECE and ME specializations are proceeding. Each specialization course will need a "v" designation.

4. Graduate Program – Mark
Mark pointed out the Grad Student Comparative Data document attached to the agenda. He stated that the numbers of applications started and submitted had declined from last year. Reza asked for estimates of how

much time is needed by departments to review grad applications. He hopes to convince the campus to provide additional resources to BCOE for these efforts.
Mark summarized the recent UC President's Task Force report on the status of graduate education at UC. The report recommended four efforts to improve PhD recruitment: change/eliminate NRT; make multi-year offers to students; increase the levels of stipends; provide additional funding for outreach to minorities. It was noted that BCOE provides more stipend funding to incoming PhD students than any other UC college of engineering.

5. Undergraduate Education – Ravi
Ravi noted the attachment that presented BCOE undergraduate enrollment data. He stated that the percentage of female BCOE undergraduates has continued to be around 19%. Also, 40% of incoming freshmen this year had GPAs above 3.9 and another 40% had GPAs between 3.6 and 3.9. The average GPA and SAT scores of incoming BCOE freshmen has continued to trend upwards. 55% of incoming freshmen have completed calculus. Only 3% of incoming freshmen need remedial algebra compared to about 10% three years ago. Additionally, BCOE's new mentoring program (ENSURE) has about 40 mentors this year. Lastly, he noted that students will need additional training to successfully utilize BCOE's new A+ (course planning) system.

6. Faculty Recruitment Plan 2015/16 - Reza
Reza called attention to the presentation slides from the recent UCR Leadership Retreat attached to the agenda. He stated that the campus intends to hire new faculty to build on areas of strength instead of just hiring replacements. As such, Reza requested that departments initiate discussions about areas of strength (or "make a difference areas"). Particular focus should be on joint areas with other (BCOE, CNAS, School of Medicine, etc) departments. It was noted that new faculty hires will also need space allocations and significant Initial Complement resources. Lastly, faculty hire considerations could respond to California workforce areas (not just those in computer science).

7. Other Matters
BCOE Retreat: Reza announced that the next BCOE Faculty Retreat is tentatively scheduled for January 23-25, 2015. The location is still under discussion. Senior research faculty will be invited.

Facility Tours: Pat stated that four tours of BCOE facilities are either planned or pending in the near future. These tours include:
- Space Audit: 11/18 beginning at 8:30am
- Bourns B Retrofit Tour: 11/21 from 10:15am – 12:15pm.
- Insurance Agency Tour of CNSE and 1st floor of MSE: pending.
- Regulatory Agency Tour: pending

Lastly, Pat reminded attendees of the BCOE Staff Appreciation event scheduled for Wednesday, December 17th from 3-5pm in WCH 205/206.

No other matters were discussed.

UNIVERSITY OF CALIFORNIA
UC RIVERSIDE
BOURNS COLLEGE OF ENGINEERING

Chairs' & Center Directors' Meeting

November 17, 2014

Agenda

Winston Chung Hall – Room 443

1.	Welcome - Request for Agenda Items from the Floor	Reza
2.	Approval of Minutes from November 3, 2014 Meeting	Pat
3.	Department and Center Updates	
4.	Graduate Program	Mark
5.	Undergraduate Education	Ravi
6.	Faculty Recruitment Plan 2015-16	Reza
7.	Other Matters	

Future Meeting Dates

2014

~~Monday, July 7~~
~~Monday, August 11~~
~~Monday, September 8~~
~~Monday, September 22~~
~~Monday, October 6~~
~~*Wednesday*, October 22~~
~~Monday, November 3~~
Monday, November 17
Monday, December 1
Monday, December 15

2015

Monday, January 5
Friday, January 23
Monday, February 2
Friday, February 20
Monday, March 2
Monday, March 16
Monday, March 30
Monday, April 13
Monday, April 27
Monday, May 11
Friday, May 29
Monday, June 8
Monday, June 22
Monday, July 6
Monday, July 20

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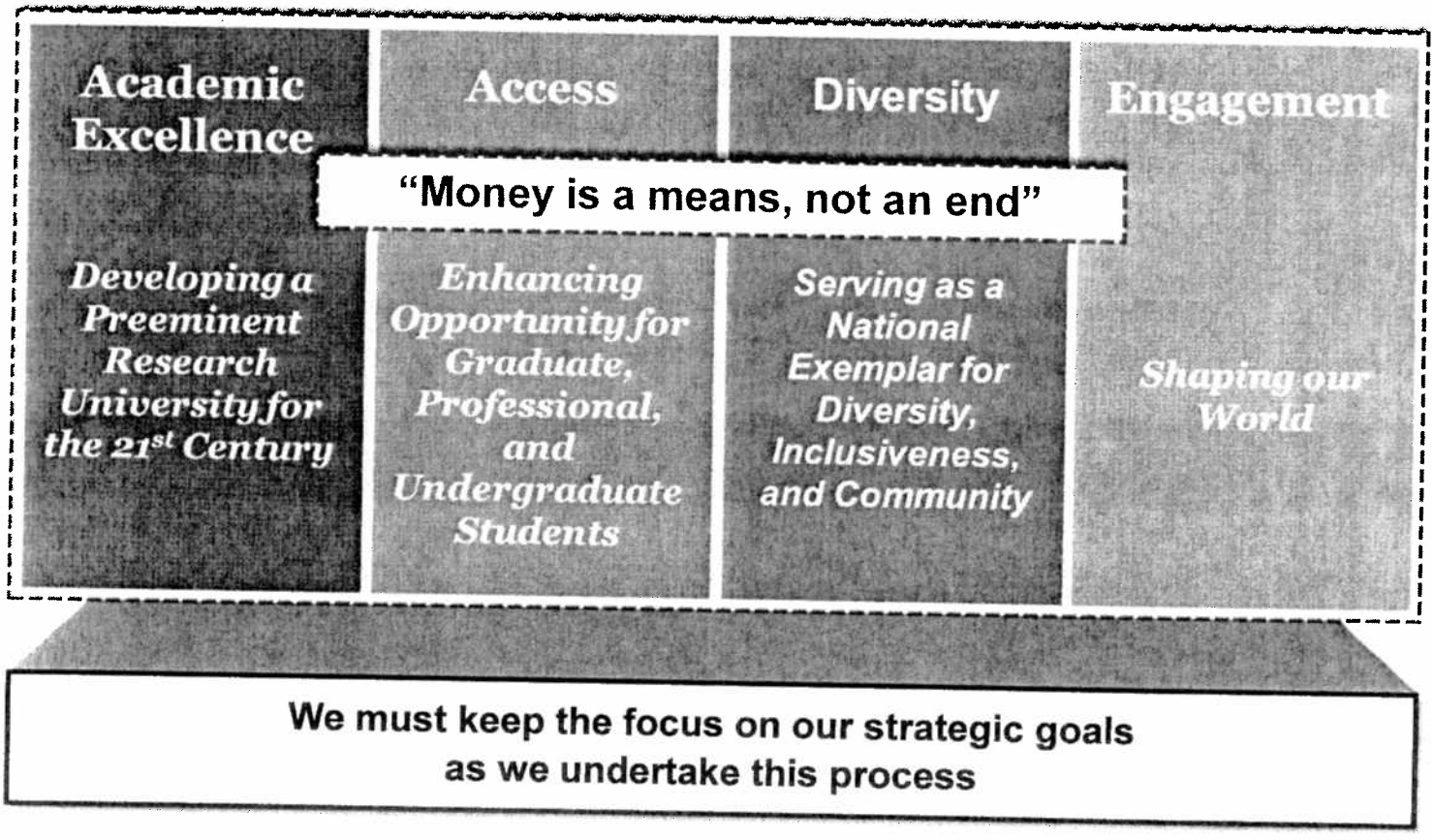
UCR's key goal is developing the profile of an Association of American Universities (AAU) member



This Current Process Workshop Discussion Document is intended solely for the information and internal use of UC Riverside and should not be used or relied upon by any other person or entity.

10:30am (1 hour)

Research

Vice Chancellor of Research and Economic Development, Michael Pazzani

10:30am (1 hour)

Research

Vice Chancellor R&D, Michael Pazzani

- Opening Remarks (10 min.)
- Discussion Sections (20 min.)
- Group Report Out (30 min.)

Discussion Topics

1. How does UCR play a major role in emerging research trends? What is the role of Vice Chancellors, Deans, Chairs, Faculty, Senate?
2. Should research strengths be uniformly distributed? How do we choose areas of excellence?
3. Team Science: How do we encourage and support teams? What distribution of faculty create strong teams?
4. How do we get more departments pursuing federal funding?
5. Federal Funds: They are not just for research.

10:30am (1 hour)

Research
Vice Chancellor of RED, Michael Pazzani

Emerging Research Trends: An Example

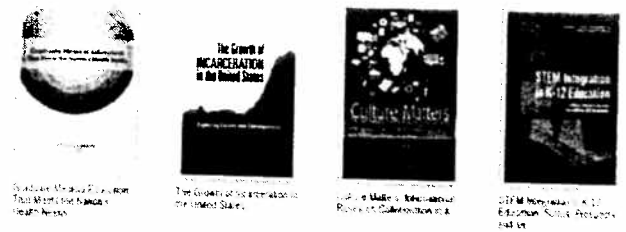
- Human Genome Sequence published in 2001
- What's Next?
  - 2002-2006: NIH Regents: Brain Imaging
  - 2006-2011: Office of Science and Technology Policy: New Technologies for Brain Imaging
  - 2011 Conference: Kavli Foundation
  - 2012: Neuron, Brain Activity MAP
  - April 2013: President and NIH director announce
  - 2013-14: Brain 2025, First Proposals
  - Sept 30, 2014: First NIH Brain awards announced

10:30am (1 hour)

Research

Vice Chancellor of R&D, Michael Pazzani

National Academies Press



10:30am (1 hour)

Research

Vice Chancellor of R&D, Michael Pazzani

Identifying emerging area for investment

- What emerging areas can we take a leadership role in?
  - Synthetic Biology, Precision Medicine, Precision Agriculture, Agriculture and Nutrition, Digital Humanities, Green Chemistry, Advanced Manufacturing, Healthy Aging, STEM Learning, …
- The best way to predict the future is to create it.
- What is the role of Vice Chancellors, Deans, Chairs, Faculty, Senate?
- Where should the discussion be happening?

10:30am (1 hour)

Research

Vice Chancellor of RED, Michael Pazzani

Agenda Setting

- Computer Science Department
  - Couches in open areas
  - Requirements for CS287
  - Discussion about MS breadth courses
  - Addition of CS210 and CS211 in the Major Specialty Areas listing
  - Policy for enforcing prerequisites in graduate courses
  - Changing the number of course CS272 to CS227
- Committee on Research
  - Systemwide Review of Proposed New Policy – APM 430, Visiting
  - Proposed Open Access Policy (attached)
  - Systemwide Review of "Rebenching" Report (attached)
  - Fellowship Policy
  - Preliminary discussion of using F&A guidelines to define minimum campus support for faculty.

10:30am (1 hour)

Research

Vice Chancellor of RED, Michael Pazzani

How Should Research Strengths be distributed?

NSF Funding to UCR

Biology	
Integrative Organismal Systems (IOS)	$12,745,803
Environmental Biology (DEB)	$4,000,523
Molecular and Cellular Biosciences (MCB)	$3,813,358
Computer and Information Science & Engineering	
Computing and Communication Foundations (CCF)	$4,361,813
Computer and Networking Systems (CNS)	$4,000,523
Information and Intelligent Systems (IIS)	$6,744,344

10:30am (1 hour)

Research
Vice Chancellor of RED, Michael Pazzani

Team Science

- *A team comprises a group of people … linked in a common purpose. Human teams are especially appropriate for conducting tasks that are high in complexity and have many interdependent subtasks.*
- *A group does not necessarily constitute a team. Teams normally have members with complementary skills and generate synergy through a coordinated effort….*
- *Team size and team composition affect team processes and team outcomes. The optimal size (and composition) of teams is debated and will vary depending on the task at hand. One study … showed an optimal size of groups at four members. Other estimate the optimal size between 5-12*

How should we encourage and support team formation?
How do we encourage leadership when faculty to represent a group?
How do we support and recognize being a member of a team?

10:30am (1 hour)

Research
Vice Chancellor of RED, Michael Pazzani

Federal Funds: Not Just for Research

- Funding available for Veterans Programs, K-12 Outreach, Student Retention, Communicating Science to the Public, Economic Development, Community College Outreach, …
- How do we develop a culture of federal funding (vs. UCR funding) for such programs, many of which are not led by faculty and which faculty get less credit for than research.
- How do engage in best practices and fundable innovations for such programs?

COMPARATIVE DATA **November 17, 2014**

BCOE GRADUATE APPLICATIONS

MS/PHD - DOMESTIC + INTERNATIONAL

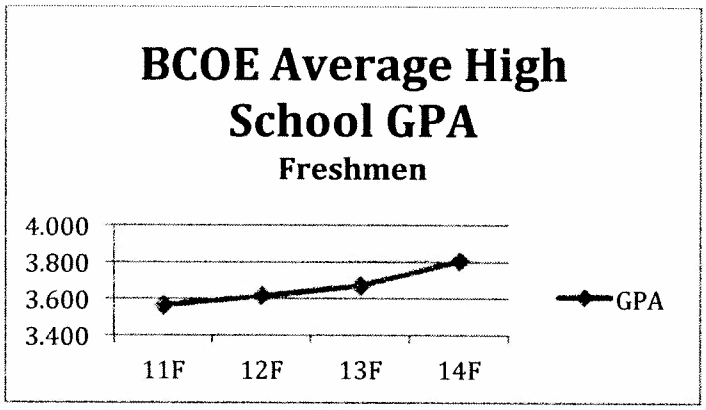
Program	Apps Started			Apps Submitted			Submit/Start	
	Fall 2014	Fall 2015	%Diff	Fall 2014	Fall 2015	%Diff	Fall 2013	Fall 2014
BIEN	51	49	-4%	9	10	11%	18%	20%
CEE	72	65	-10%	15	5	-67%	21%	8%
CEN	24	26	8%	5	6	20%	21%	23%
CPSC	227	235	4%	49	51	4%	22%	22%
ELEN	182	167	-8%	47	33	-30%	26%	20%
MSOL	0	2		0	0			
MSE	42	40	-5%	8	6	-25%	19%	15%
MCEN	48	36	-25%	7	7	0%	15%	19%
BCOE	646	620	-4%	140	118	-16%	22%	19%

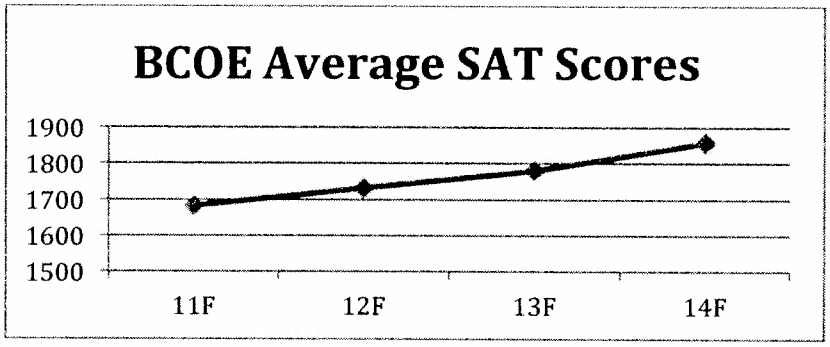
MS/PHD - DOMESTIC ONLY

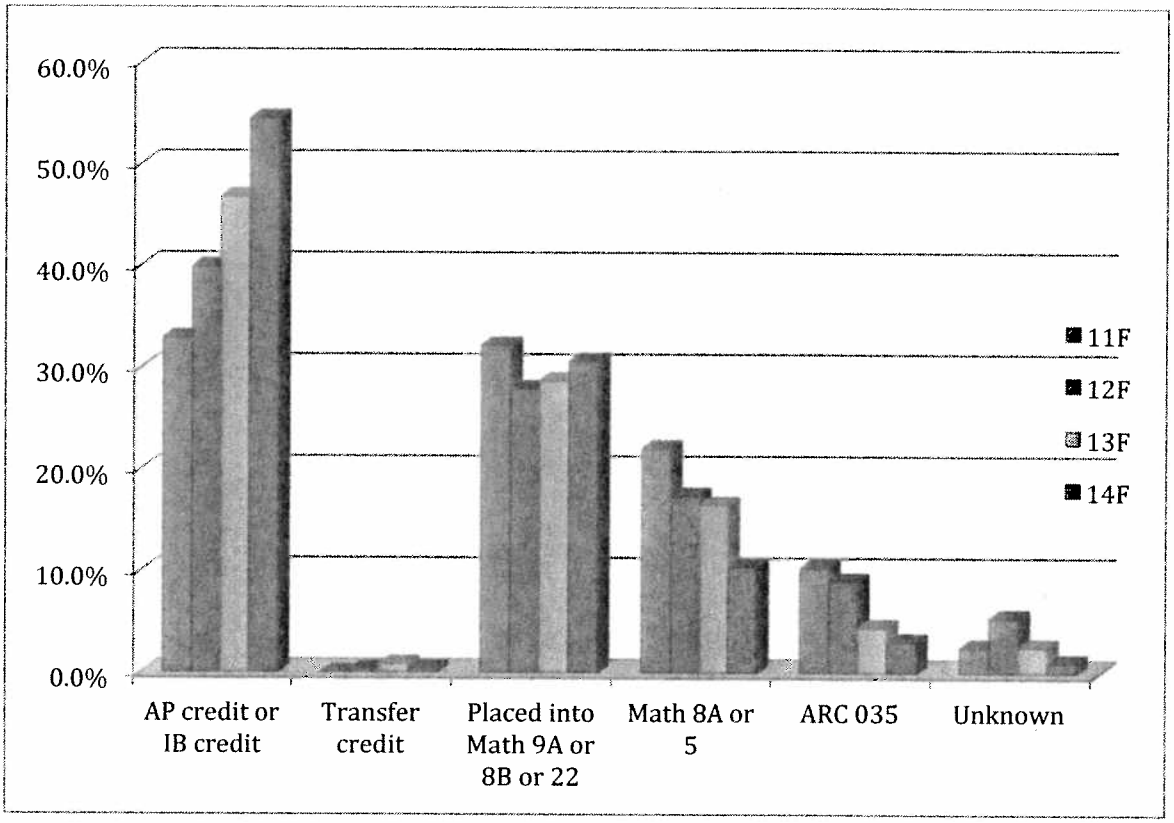
Program	Apps Started			Apps Submitted			Submit/Start	
	Fall 2014	Fall 2015	%Diff	Fall 2014	Fall 2015	%Diff	Fall 2013	Fall 2014
BIEN	26	28	8%	4	5	25%	15%	18%
CEE	27	21	-22%	6	3	-50%	22%	14%
CEN	2	2	0%	0	1	#DIV/0!	0%	50%
CPSC	29	21	-28%	10	2	-80%	34%	10%
ELEN	15	23	53%	2	4	100%	13%	17%
MSOL	0	1		0	0			
MSE	9	8	-11%	1	1	0%	11%	13%
MCEN	22	10	-55%	3	3	0%	14%	30%
BCOE	130	114	-12%	26	19	-27%	20%	17%

MS/PHD - INTERNATIONAL ONLY

Program	Apps Started			Apps Submitted			Submit/Start	
	Fall 2014	Fall 2015	%Diff	Fall 2014	Fall 2015	%Diff	Fall 2013	Fall 2014
BIEN	25	21	-16%	5	5	0%	20%	24%
CEE	45	44	-2%	9	2	-78%	20%	5%
CEN	22	24	9%	5	5	0%	23%	21%
CPSC	198	214	8%	39	49	26%	20%	23%
ELEN	167	144	-14%	45	29	-36%	27%	20%
MSOL	0	1	#DIV/0!	0	0	#DIV/0!	#DIV/0!	0%
MSE	33	32	-3%	7	5	-29%	21%	16%
MCEN	26	26	0%	4	4	0%	15%	15%
BCOE	516	506	-2%	114	99	-13%	22%	20%


BCOE Average High School GPA
Freshmen
4.000
3.800
3.600
3.400
11F
12F
13F
14F
GPA


BCOE Average SAT Scores
1900
1800
1700
1600
1500
11F
12F
13F
14F


60.0%
50.0%
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20.0%
10.0%
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11F
12F
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14F
AP credit or IB credit
Transfer credit
Placed into Math 9A or 8B or 22
Math 8A or 5
ARC 035
Unknown