Chairs' & Center Directors' Meeting Minutes

Date: February 2, 2015 (12:00 to 2:00 pm)
Location: WCH – Room 443
Attendees: Abbaschian, Reza
Aguilar, Guillermo
Barth, Matt
Bhanu, Bir
Boretz, Mitch
Chrobak, Marek
Farrell, Jay
Garay, Javier
Haddon, Robert
Hartney, Pat
Myung, Nosang
Najjar, Walid
Ravi
Vafai, Kambiz
Venkatram, Akula
Wang, Albert

Absent: Balandin, Alex
Matsumoto, Mark
Tan, Sheldon

The agenda for the meeting is shown in Appendix 1.

1. Welcome and call for agenda items - Reza
Reza added the topics of BCOE's 25th Anniversary and Commencement to the agenda.
Reza called attention to today's message from the Provost announcing that the proposed combination of CNAS and CHASS was not supported by a majority of UCR faculty and would not be implemented. Venky added that 68% of UCR faculty did not support this combination. The most negative reaction was in CNAS. CHASS faculty were less negative. Also, Venky noted that the Academic Senate's Executive Committee voted in favor of establishing endowed chairs even if all the donor names are not revealed. He did not support this action. Reza added that all donor names should be revealed to the Academic Senate but kept on a confidential basis.

2. Approval of Minutes – Mitch/Pat
The revised minutes of the December 15th Chairs/Directors meeting were unanimously approved.

3. Retreat - Reza
Comments and feedback from Chairs/Directors about BCOE's recent Faculty Retreat included:
- the invited speakers were outstanding

- there wasn't adequate time during the Retreat for faculty discussions
- there weren't enough comments from younger faculty
- more lead time was needed for committee work before the Retreat
- if possible, committee recommendations should be circulated to faculty in advance of the Retreat
- it was unfortunate that the EVC/P had to leave before committee presentations since his feedback would have been valuable. Reza noted that he will be sending the EVC/P committee recommendation summaries.

4. Space – Reza

Reza handed out copies of slides from a recent Space Utilization Summary presentation to Deans. The first slide indicates that lab space per faculty at UCR averages 1,276sf vs. the Benchmark average of 1,454sf. BCOE's per faculty average for wet labs is 957sf vs. the Benchmark average of 1,531sf. CNAS' per faculty average for wet labs is 1,421sf vs. the Benchmark average of 1,399sf. This data will be refined by the consultants. An important part of this refinement process will be Campus Visioning Workshops. Two such workshops are planned. The first one is scheduled on 2/24/15 from 12:30 – 2:30pm in WCH 205/206. Lunch will be provided. The second workshop is scheduled for the same day (2/24/15) from 5:30 – 7:30pm in UNEX, rooms A&B. Reza noted that it is important for BCOE faculty to provide input during these workshops and encouraged faculty participation. It was suggested that the Retreat's Research Space Committee should continue its work and should participate in these workshops.

5. Department and Center Updates

CEE: Nosang announced that Prof. Xin Ge has received an NSF Career Award. A total of three recent CEE faculty hires have received Career awards. The department will be interviewing a total of seven faculty hire candidates. All interviews are scheduled to be completed by 2/28/15.

ME: Guillermo announced that Prof. Elisa Franco has been recommended for a Career Award. Similar to CEE, three recent ME hires have received Career awards. There are several excellent candidates for the joint faculty positions with MSE and CEE.

EE: Jay reported that the department received 88 faculty applications. The department will be interviewing nine candidates, including two diversity candidates.

BIEN: Bir noted that the department received several faculty applications. Unfortunately, there were no female applicants so the department needed to send letters to 51 possible female candidates. This process will take another two weeks to complete.
Also, Bir reported that there is interest in cluster hires with BIEN from the School of Medicine and CNAS. In this regard, Javier noted that a committee has been formed with CNAS to develop cluster hire proposals in materials science and engineering. Reza added that it's beneficial for BCOE to participate in cluster hires but BCOE faculty should take a leadership role in some areas. Nosang stated that cluster hire proposals are being developed for the Biotechnology Center and Water Technology Center. Reza added that he hoped a cluster hire proposal could be developed in Energy.

CSE: Marek reported that two faculty hire candidates have visited to date. There are 13 more candidate visits being scheduled. CSE has received about 1,000 grad student applications to date. The department is developing six cluster hire proposals. Reza noted that the School of Education may be interested in developing cluster hires with BCOE departments.

Mitch noted that UCR's Office of Research and Economic Development (RED) will be hiring a pre-proposal analyst that will focus on CNAS. Also, CHASS will be hiring its own contract/grant analyst. It was also noted

the Office of Naval Research has a new person in charge of Minority Serving Institution programs. This person will be invited to visit BCOE. Four out of BCOE's 11 ONR MSI proposals were successful last year.

UCLIGHT: Albert will be scheduling a demo for Northrop Grumman representatives. They are interested in UCLIGHT's applications for underwater communications.

CEN: Walid reported that two faculty candidates are being interviewed. Also, a cluster hire proposal in computational science and engineering is being developed. This proposal will involve all BCOE departments and other departments in CNAS and CHASS.

CNSE: Robert wants to respond to NSF's National Nanotechnology Coordination Infrastructure (NNCI) solicitation. This funding could be used to build out the rest of MSE's Clean Room. Robert needs faculty participants that are interested in fabrication for commercial users, in particular bio.
Reza added that he recently visited UCB's academic innovation center, the Foundry@CITRIS. This facility supports student entrepreneurial efforts.

CE-CERT: Matt reported that he is working with CEE on their joint faculty hire. The recruitment for a joint researcher with the School of Medicine has been re-opened. CE-CERT is working on cluster hire proposals in the areas of GIS, Advanced Transportation and Sustainability. CE-CERT's new contract/grant analyst will be starting soon. Lastly, CE-CERT's Board of Advisors meeting is being scheduled in May.

MSE: Javier is working with ME on their joint faculty hire. Also, he noted that lab equipment at Sandia and Los Alamos National Labs can be used by researchers at no cost.

MSOL: Kambiz noted that the Launch Visit with Pearson/Embanet representatives has been scheduled on February 12-13, 2015. Several BCOE and UCR representatives will participate in this Visit. He hopes to finalize his admissions discussions with the Grad Council soon. Lastly, MSOL's Systems area has not been popular so far.

6. Undergraduate Program – Ravi
Undergrads: Ravi distributed a summary of BCOE's high-quality 2015 admits. These applicants have AIS scores of 4,500 and above. There are about 7,200 of these applicants this year. The average AIS score in this group was 4,855 which is higher than last year. The yield number from this group is uncertain. Also presented on this handout was a comparison of the numbers of Regents and Chancellors scholarship offers at UCR from 2013 to 2015. The numbers of Regents and Chancellors scholarship offers decreased in 2015 by over half from 2014 (due to funding limitations). Ravi asked Chairs to encourage their faculty to volunteer for the 2/28/15 Chancellor's Scholarship event. The bottom portion of the handout presented the numbers of transfer student applicants by BCOE program. The total number of applicants increased from about 1,200 last year to over 1,600 this year. Also noted on this handout is BCOE's CA resident target of 500 freshmen this year. Because of state funding uncertainties, UCOP is advising programs to admit lower (not higher) numbers this year. Ravi still needs freshmen targets from a few programs. This year's Undergrad Admissions Committee will be comprised of the Undergrad Advisors from each department.
GPP Program: Ravi reminded participants that we have MOUs with 20 academic institutions in China for the GPP Program. We received most GPP students from one institution last year due to the timing of its academic calendar. Ravi has asked UNEX to include applicants from more institutions this year. Ravi needs student projections as soon as possible. He reminded Chairs that the purpose of GPP is to help CA students by providing additional course sections. Ravi stated that BCOE needs to have a standard format for offering courses to GPP students. One option would be a fixed list of courses by department. The second option would

be lists of courses available for the year by department. After discussion, the second option was preferred by departments. Ravi asked that these course lists be sent to him as soon as possible. Nosang requested a GPP timeline be distributed and that a GPP Committee be formed with representatives from each BCOE department (along with Jun Wang). Ravi reported that he has been told that GPP student demand varies by program and has asked UNEX for more details. He also indicated that many other universities are recruiting students in China. Nosang has encouraged CEE faculty traveling in China to visit BCOE's MOU partner universities. Lastly, Ravi reported that the School of Public Policy (SPP) is requesting that 32 units of a GPP student's year be credited towards an MS degree. Currently, the Grad Division allows 8 such units.

7. Machine Shop – Guillermo

Guillermo gave a Powerpoint presentation on ME's Machine Shop. Important points covered in this presentation were:

- ME's Machine Shop is about 4,100sf and is staffed by a full-time Associate Development Engineer and half-time Lab Manager
- The Shop includes several pieces of major equipment including a new CNC mill
- The Machine Shop provides instructional support, safety training and research support, primarily to ME but also provides support to students from other BCOE departments
- Due to ME instructional needs, the Machine Shop is very busy in the Winter and Spring quarters
- The Machine Shop charges $34/hour for machine shop staff time. In comparison, CNAS's Machine Shop's rate is $36/hour. (It was noted later that CNAS's Machine Shop is closing.)

In order to cover ME's instructional needs and still provide support to other BCOE departments, Guillermo proposed the following:

- Instructional or research projects that require several hours of involvement (e.g., senior design or research projects) either from the machinist, the student(s) or both, can be recharged to the respective PIs or departments via the traditional recharge process. After initial (free) consultation and basic safety training, the user provides an FAU and the Machine Shop manager charges for the instruction, supervision and machining hours. Students will need to work out the details of an FAU recharge account either with the department's Undergrad Advisor or Chair for instructional-related charges, and with their respective PI's for research-related work.
- Students or others who require relatively simple support like the occasional request for bolts and nuts or relatively minimal training/work (e.g., drilling holes through a thin metal plate) can be accommodated if the department provides a $1,000 deposit to ME so that the Machine Shop can charge those materials and/or machining time on an as-used basis.

8. Other Matters

BCOE 25th Anniversary: Reza announced that an event to celebrate BCOE's 25th Anniversary is being scheduled for Saturday, May 16, 2015. More information will be available soon.

Commencement: Reza reported that BCOE's Commencement ceremony is scheduled for Monday evening, June 15, 2015. This year's BCOE Commencement will be similar to last year's event.

No other topics were discussed.

UNIVERSITY OF CALIFORNIA
UC RIVERSIDE
BOURNS COLLEGE OF ENGINEERING

Chairs' & Center Directors' Meeting

February 2, 2015

Agenda

Winston Chung Hall – Room 443

1.	Welcome - Request for Agenda Items from the Floor	Reza
2.	Approval of Minutes from December 15, 2014 Meeting	Pat
3.	Retreat (Comments/Outcomes)	Reza
4.	Space	Reza/Pat
5.	Department and Center Updates	
6.	Undergraduate Program	Ravi
7.	Machine Shop	Guillermo
8.	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

New college-wide target: 500 (residents) UCOP is cautioning us to go lower, not higher.

Major	Applicants	Admitted	Average Admit AIS	Total Appl.	Total Admit	Average Admit AIS
Bioengineering	398	274	4847	787	387	4903
Bioengineering BS + MS	389	113	5039			
Business Informatics	146	27	4814	146	27	
Chemical Engineering	324	154	4820	462	187	4850
Chemical Engineering BS + MS	138	33	4992			
Computer Engineering	554	181	4749	988	250	4808
Computer Engineering BS + MS	434	69	4961			
Computer Science	1435	398	4881	2097	524	4905
Computer Science BS + MS	662	126	5001			
Electrical Engineering	361	115	4808	604	156	4848
Electrical Engineering BS + MS	243	41	4961			
Environmental Engineering	199	86	4790	323	111	4834
Environmental Engineering BS + MS	124	25	4986			
Materials Science and Engineering	107	36	4827	107	36	4827
Mechanical Engineering	1141	388	4758	1681	463	4794
Mechanical Engineering BS + MS	540	75	4979			
Grand Total	7195	**2141**	**4855**			**4855**

	2013	**2014**	**2015**	
Regents	546	1000	425	
Chancellors	2657	5060	2092	

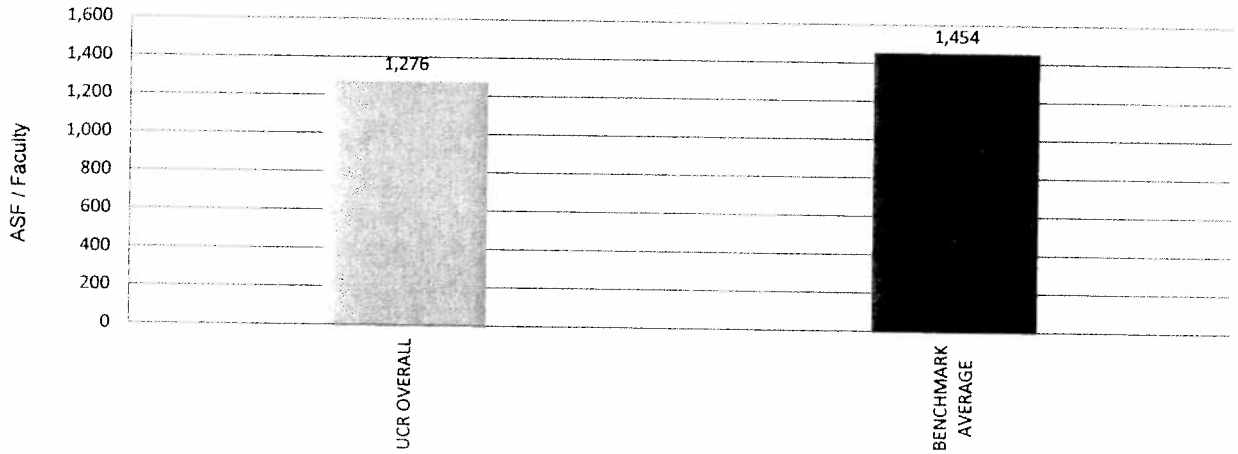
BCOE TRANSFER

MAJOR	APPLICANTS
Bioengineering	116
Business Informatics	21
Chemical Engineering	213
Computer Engineering	111
Computer Science	476
Computer Science BS + MS	2
Electrical Engineering	216
Electrical Engineering BS + MS	3
Environmental Engineering	59
Limited Student	1
Materials Science and Engineering	28
Mechanical Engineering	372
TOTAL TRANSFER	1618

Utilization – Research Lab ASF per Faculty

All Disciplines

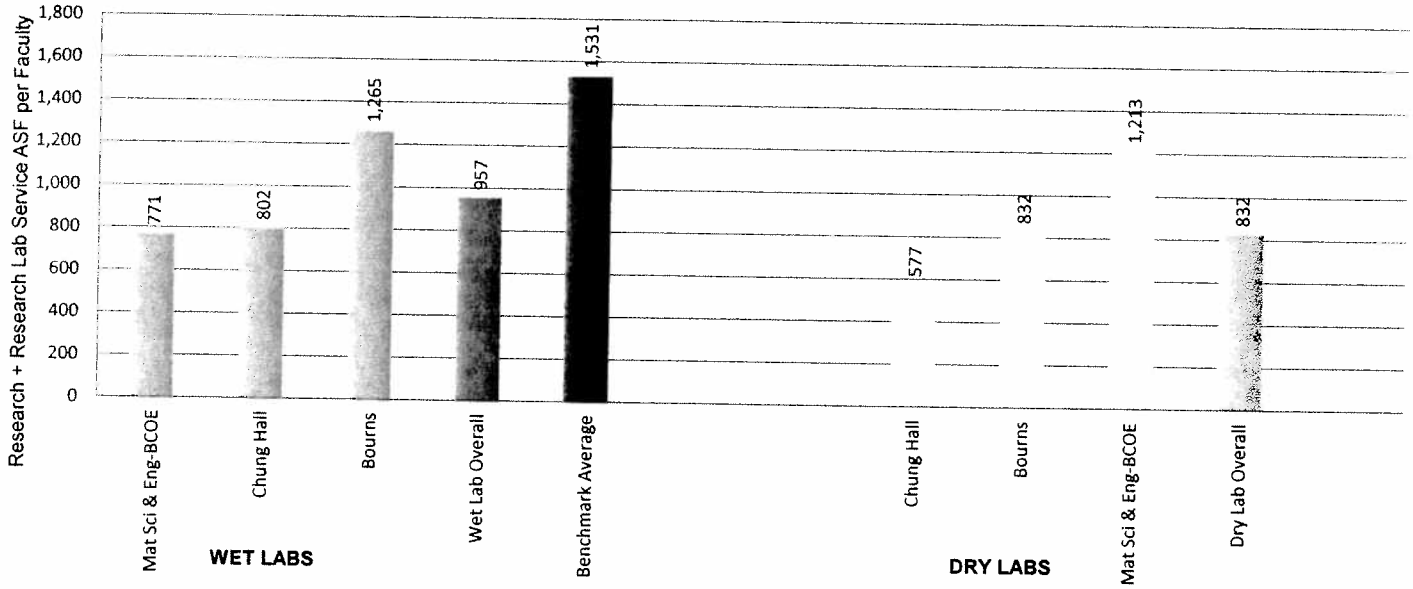
- Ratio of Research + Lab Service ASF per Faculty
- Varies widely depending on Size of Research Group
- Overall Below Norm – Need to Dig Deeper



Utilization – Research Lab ASF per Faculty

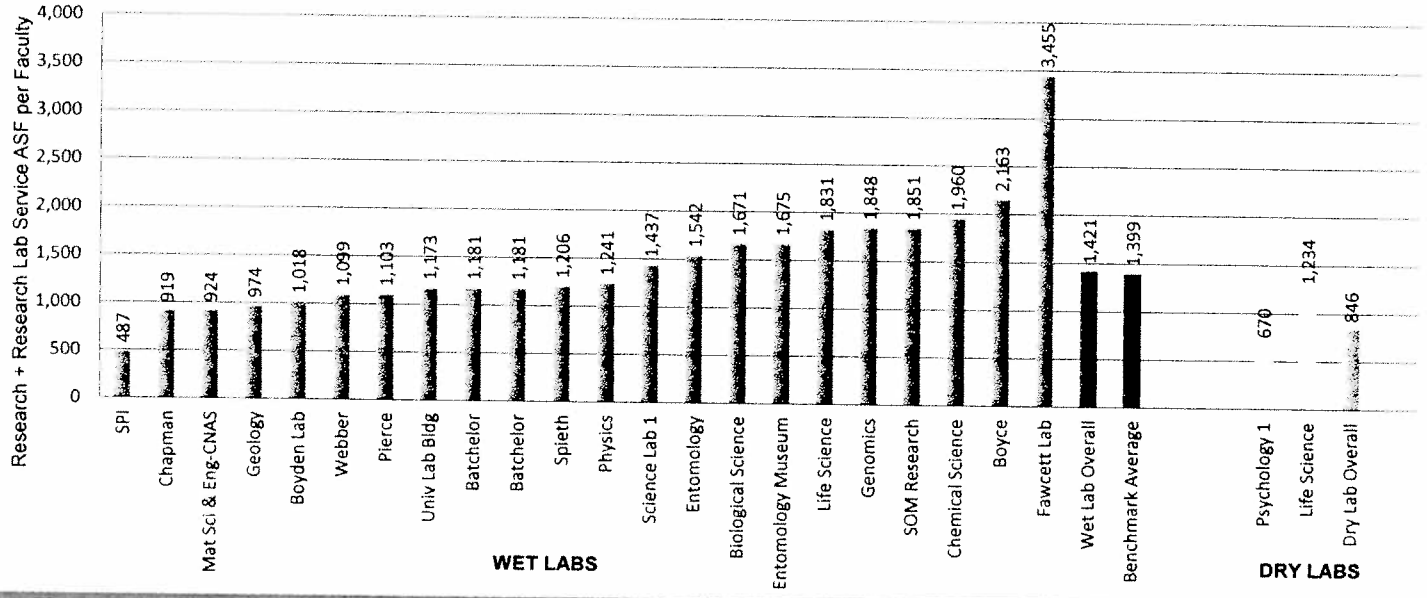
Engineering

- Ratio of Research + Lab Service ASF per Faculty
- Wet Labs Below Norm



Utilization – Research Lab ASF per Faculty
Biological, Physical, Cognitive Sciences

- Ratio of Research + Lab Service ASF per Faculty
- Overall Close to Average Norms – Varies based on Size of Research Groups
- Several Above Norm



Takeaways from Laboratory Building Analysis

- Significant Portion of Laboratory Buildings are Out-of-Date (1/3) and/or Poorly Suited for Laboratory Use (1/2)
- Majority is Inflexible Enclosed Laboratory Space (4/5)
- Most have Good Building Efficiency and Laboratory Density Ratios which are unlikely to be improved
- Some are Low in Lab Service Area (Primarily Class Labs) which should be addressed
- Some Class Labs Appear Underutilized – Maybe some Potential for Additional Lab Sections or Possible Repurposing for Research, but some Class Labs should be 'right-sized' based on Modern Standards of ASF per Student Station
- Overall Average Research ASF per Science Faculty is Typical, but Average Research ASF per Engineering Faculty is Below Average
- Research Allocations in some Buildings or Departments are Below Average, while a few are above Average – Maybe some Potential for Additional Faculty depending on Research Group Size
- Suggest looking at 'ASF per Person' in addition to 'ASF per Faculty' as a more accurate way of determining appropriate Area Allocations based on population

Department of Mechanical Engineering

Machine Shop

1

BRIEF DESCRIPTION

WHAT WE HAVE

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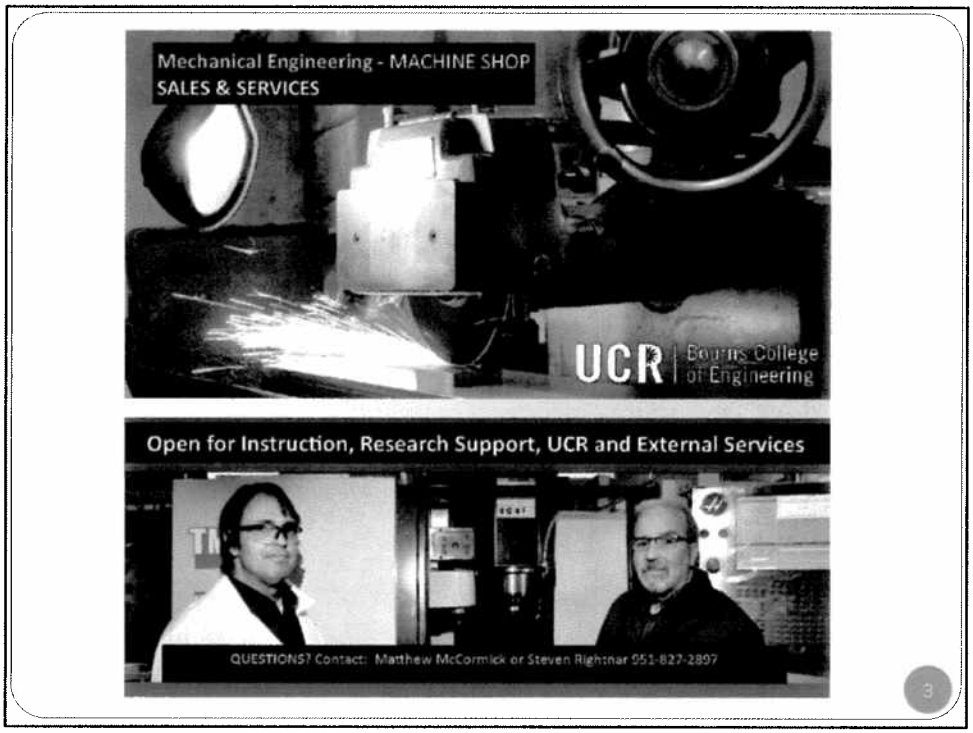
Mechanical Engineering - MACHINE SHOP
SALES & SERVICES
UCR | Bourns College of Engineering
Open for Instruction, Research Support, UCR and External Services
QUESTIONS? Contact: Matthew McCormick or Steven Rightnar 951-827-2897
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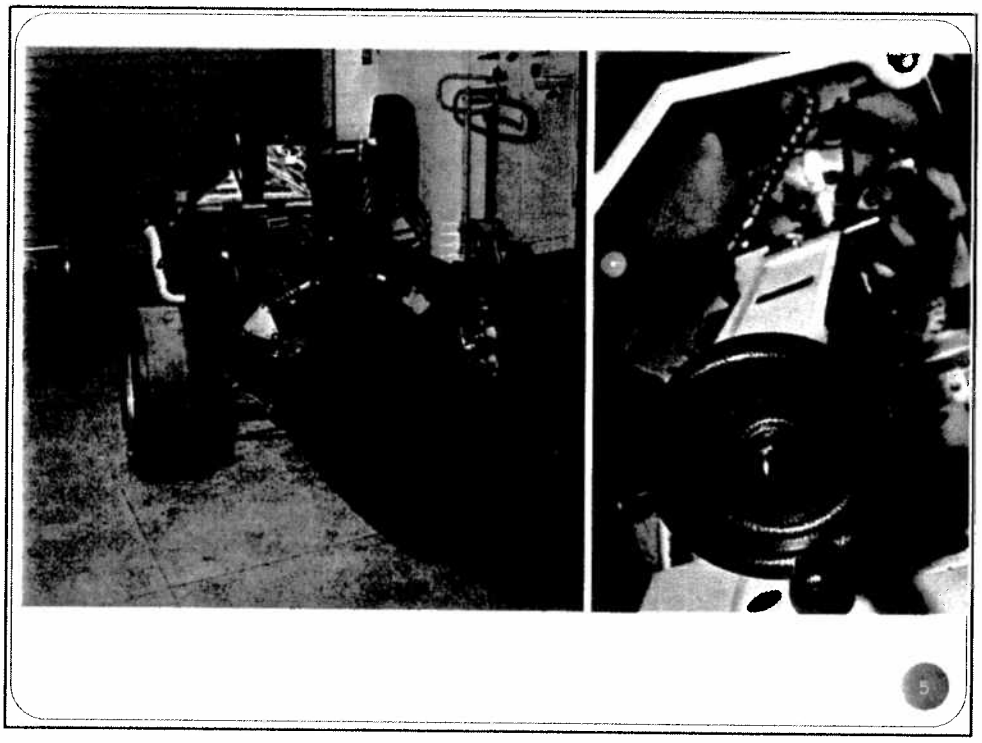

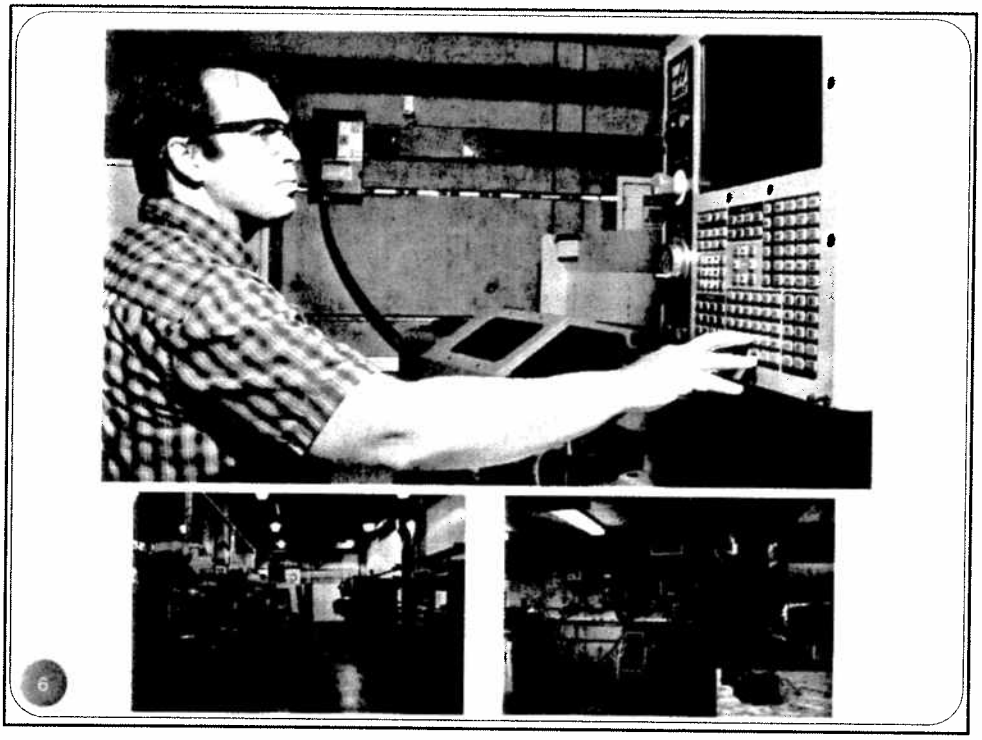

Machine Shop Description

- Nearly 4100 sq ft.
- Divided into:
  (a) Engine and assembly area,
  (b) Wood and sheet metal shop,
  (c) Heavy machine tools,
  (d) Supervisor cabin.
- Supervised by
  - Full-time Associate Development Engineer: Matt McCormick
  - A 50% Instruc. Lab Manager/50% Mechanician: Steve Rightnar

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Major Equipment

- One 20" x 60" Lion's Tool Room Lathe,
- Two 10" x 24" Monarch Tool Room Lathe,
- Two Sharp Vertical Knee Mills,
- 2 Axis CNC Trak-TRM Mill,
- 3 Axis CNC Trak-DPM Mill,
- Torchmate CNC Plasma Cutter,
- Charmilles Robofil 300 Wire EDM
- Heavy Duty Cincinnati Universal Milling Machine
- Haas CNC TL-1 lathe
- **One brand new Haas 3-axis CNC Mill**

8

Major Equipment

Support Equipment:

- Do-All Vertical Band Saw,
- Do-All Horizontal Cut-off Saw, 10"
- Kalamazoo Abrasive Cut-off Saw,
- Do-All Hydraulic Surface Grinder,
- Universal Cutter
- Grinder,
- Craftsman 20" Drill Press,
- Craftsman 10" Table Saw,
- 48" Tennsmith Pan & Box Brake,
- 48" Tennsmith Foot Shear,
- 6" Tennsmith Notcher,
- 14" Disc Sander.

9

Major Equipment

Welding Equipment:

- Miller Tig Welder,
- Miller Mig Welder,
- Miller Spot Welder,
- Oxygen & Acetylene Welder,
- Plasma cutter.

Inspection Equipment:

- 24" x 24" Grade A Surface Plate,
- 6' x 8' Grade B Surface Plate,
- Daq-View with miscellaneous Cards,
- Complete sets of inside & outside Micrometers,
- 12" & 24" Digital Height Gages,

Miscellaneous Inspection Equipment,

- 24" Tensile Tester,

10

Major Equipment

Tools & supplies:

- Complete and fully stocked tool crib.
- Rotary Tables,
- Indexing Heads,
- Chucks,
- Angle plates,
- Universal Vises,
- Hand tools and power tools,
- Cutters,
- Jigs, fixtures, and
- other small shop tools.

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BRIEF DESCRIPTION

WHAT WE CURRENTLY DO

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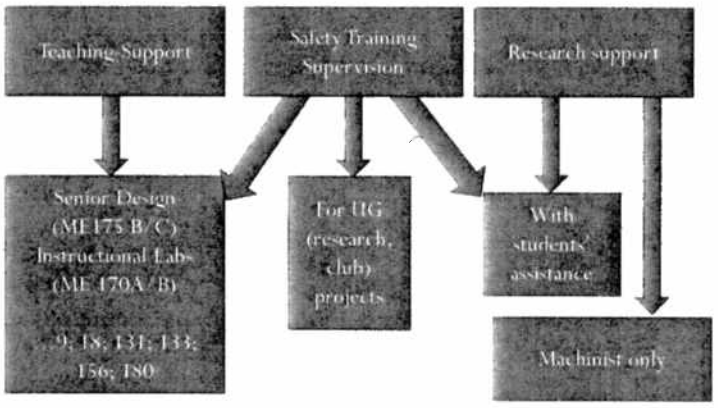
What we do?



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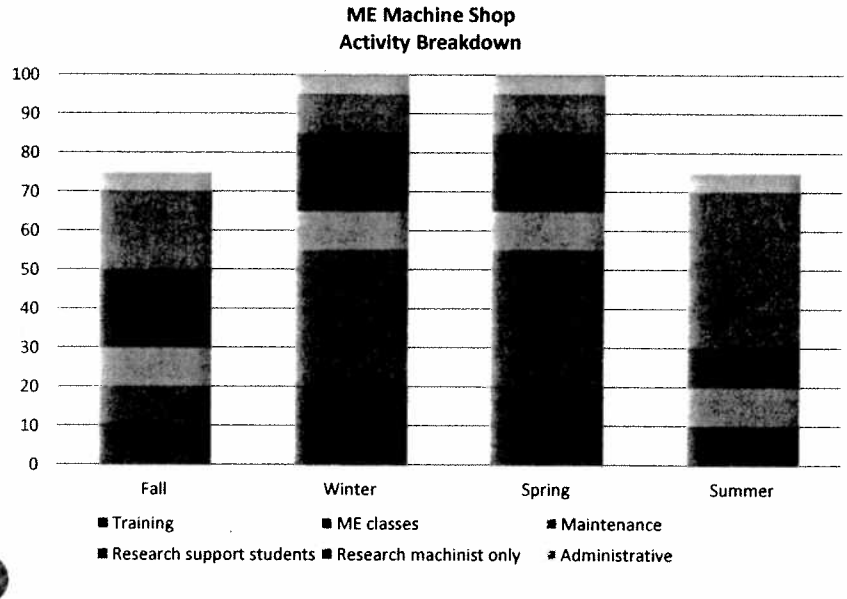
Time/Personnel Constraints



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Schedule for Machine Shop Winter 2015 (8-5pm daily)

	MON	TUE	WED	THUR	FRI
8-9	Training A/safety training-exams	machining/minimal supervision	machining/minimal supervision	Training B	Training A&C/safety training-exams
9-10	Training A/safety training-exams	**Walk-in hours full supervision**	machining/minimal supervision	Training B	Training A&C/safety training-exams
10-12	**Walk-in hours full supervision**	**Walk-in hours full supervision**	Matt machining/minimal supervision	Matt machining/minimal supervision	Matt machining/minimal supervision
12-1	Break	Break	Break	Break	Break
1-3	Matt machining/minimal supervision	Matt machining/minimal supervision	**Walk-in hours full supervision**	**Walk-in hours full supervision**	Matt machining/minimal supervision
3-5	Matt machining/minimal supervision	Clean up/scheduled maintenance / safety training-exams	Training A/safety training-exams	Matt machining/minimal supervision	Clean up/scheduled maintenance / safety training-exams
5-	After hrs	After hrs	After hrs	After hrs	After hrs

Training A – Meant for ME175B Students in anticipation of ME175C (those who'll work on device construction only) groups of 4 at a time.

Training B – Meant for graduate students who need training for research-related tasks. Groups of 4 at a time—will be billed for through S&S plan.

Training C – Meant for UCR community at large who wants need training for research-related tasks time—will be billed for through S&S plan.

After hrs, permitted ONLY with Machine Shop Manager written approval and in PAIRS

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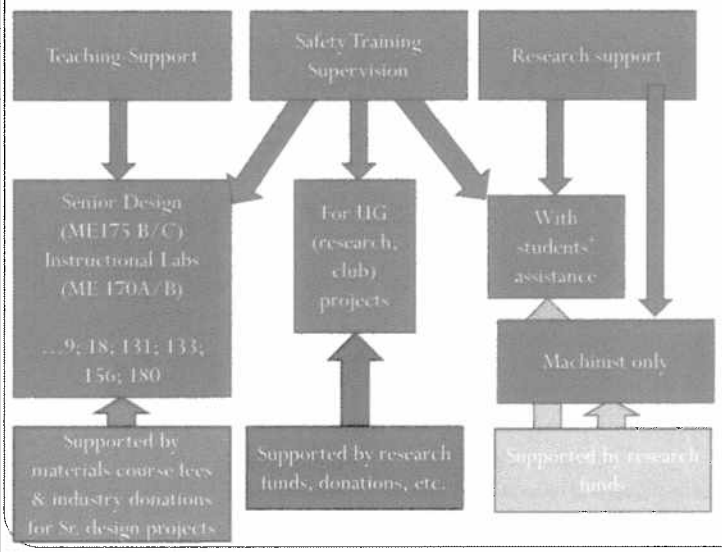
How we pay for it?



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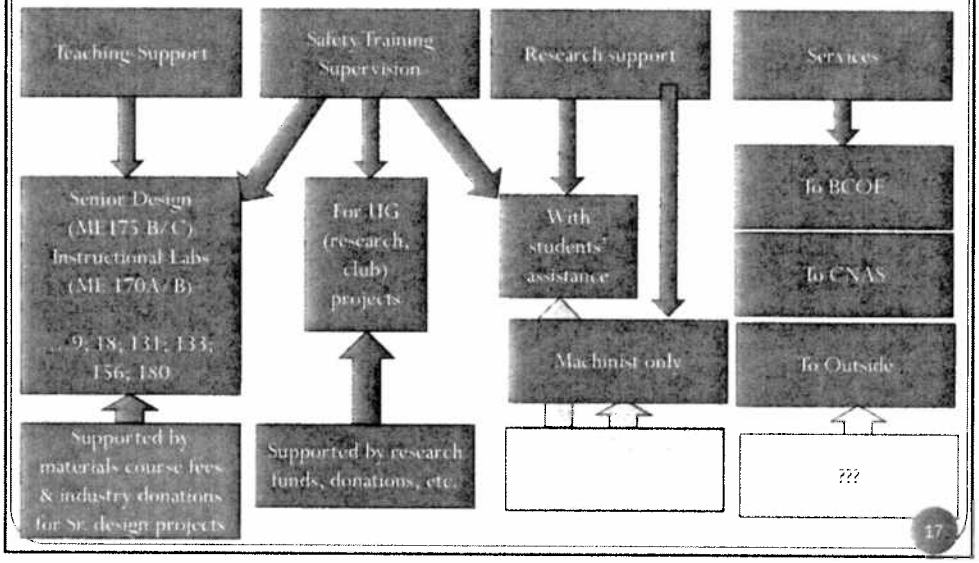
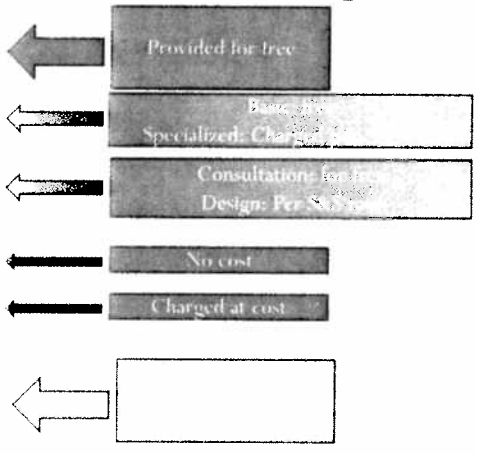
What we would like to do?



Procedures (Safety, Training, Machining)

- Safety
  - MUST
- Training
  - Different levels
- Design consultation
  - Highly recommended
- Materials
  - Self-ordered
  - Provided from stock (charged)
- Machining
  - Machinist
  - Minimal supervision
  - Maximal supervision



Sales and Services Plan in Place

- Internal Rate
  - $34 / hr
- CNAS shop rate
  - $36 / hr (not instructional)

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Deposit Proposal

- Each program provides an FAU with a $1,000 deposit to charge against to take care of your UG (instructional and student club activities)
  - MS manager provides the instruction and supervision, provides small parts (bolts, nuts, etc.) and charges both against that account
  - Provide you monthly or quarterly reports and ask for replenishment when deposit runs low.

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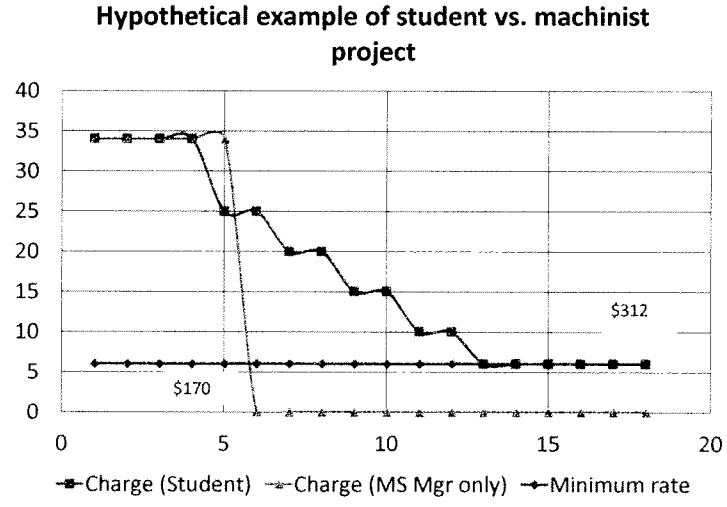
What is more feasible to do?



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