



University at Buffalo

The State University of New York

School of Engineering and Applied Sciences

UB Engineering and Applied Sciences Dean's Quarterly Report #14 October 1, 2009 to December 31, 2009

1. Enrollment Planning 	2. Faculty Searches 	3. Research Initiatives 	4. Development Report 	5. Metrics 	6. Events and Visits 
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1. Enrollment Planning

Last quarter's DQR [click here](#) discussed the current size and rate of change of our enrollment, space, and faculty. That discussion ended:

...we must gain support from UB's leadership that our graduate enrollment growth and out-of-state tuition revenues can be used to expand our faculty size. This may be the single most important issue we will face in the next two to three years.

In the past three months, progress has been made on this issue by working collaboratively with UB's administration. The discussion began this fall, when I asked the Budget and Finance office to generate data of graduate tuition revenues, net of scholarships, for SEAS. This study showed that from 2008–09 to 2009–10 the net present value graduate tuition revenue for SEAS grew by \$1.5M, or approximately 25%. Based on these data, a proposal is being negotiated to distribute a percentage of this increase to the school. An important part of this proposal is to require that enrollment growth does not reduce student quality, and that the distributed revenues be invested in sustaining student quality and increasing the academic excellence of our graduate education and research programs.

The proposal will include provisions for future year targets, participation by other schools at UB, and percent returns in future years. These policies are still in negotiations. Their outcome will determine when and if the plan is adopted. An important part of the agreement is the setting of out-year targets and the revenue sharing percentage. Our position is that for the next three years the target should be the tuition revenues of 2008–09, and that the percentage shared should be near a value of 60% to the school and 40% to central. After a three-year period, the target and sharing percentages can

be renegotiated. For perspective, this distribution policy would return a dollar amount that is approximately 50% of our annual expenditures on stipends for teaching assistants.

If an agreement is reached, the majority (75%) of the shared revenue will be returned to the departments who brought them to UB. These allocated funds will be used at the discretion of the chairs to enhance and run their departments. A smaller portion (25%) will be used to create school-wide programs to help sustain our graduate student enrollment and to improve the quality and quantity of the research programs in the school.

Added to this new UB budgeting policy is the Governor's proposal to give SUNY and, therefore, UB the ability to adjust its tuition independent of the legislature. The Governor's budget proposal also incorporates the possibility of differential tuition. Differential tuition would allow more expensive undergraduate degree programs, like engineering and computer science, to charge higher tuition rates than other less expensive degree programs.

The downsides of these changes are obvious: rapid tuition rate increases to fill state budget cuts, unhealthy internal competition for students and facilities, lowering of admission standards, focusing on revenue and not quality, etc. However, if we can avoid these obvious and short sighted drawbacks, the upside of controlling our growth path and gaining some financial independence can be worth it. As this allocation policy moves forward, I will keep you informed on its impact and how we will manage these new responsibilities.



2. Faculty Searches

The school is conducting twelve faculty searches this year, with the hope and expectation to fill all twelve by the fall of 2010. The Table on the following page shows the hiring Department, the targeted Strategic Strength, the Professorial Rank, the Posting Date, and the Number of Applicants as of January 15, 2010. The applicant pools for the searches are deep and strong, and the finances are in place to bring them all on board. Having these key parts, we now need to focus on finding those outstanding candidates who best fit UB and who will be successful faculty members.

Two of the twelve searches (#6 and #11) are being conducted with interdisciplinary search committees (ISC). This is a new and experimental approach to faculty searches for the school. The objective of using an ISC is to find the best person within an area of research, regardless of their PhD degree, and recruit them to the department where they fit best. For example, search #6 is looking for a faculty member with expertise in multi-scale modeling of molecule events. Candidates with degrees in

Material Science, Physics, Chemistry, Mechanical Engineering, Electrical Engineering, and Chemical Engineering could best fit this need, and the home department for the hire could be CBE, EE, or MAE.

This search method has the potential of finding great faculty members. However, because the search may not result in a hire in one's home department, the engagement of faculty in the recruiting process can suffer. I hope that we can overcome that limitation and make this method work.

In addition to the two ISC searches, nine searches are being conducted conventionally, and one is a joint search between EE and Physics for a replacement faculty in the area of Molecular Beam Epitaxy, a need driven by a recent vacancy.

Faculty Search Status as of 1/15/2010					
Search	Department(s)	Strategic Strength	Rank	Date Posted	# Applicants
1	CSE	ICT	Asst	9/22/2009	185
2	CSE	ICT	Asst	11/6/2009	76
3	ISE	ICT	Asst	11/13/2009	47
4	MAE	ICT	Asst	5/28/2009	61
5	MAE	ICT	Asst	11/24/2009	154
6	EE, MAE, CBE	INS	Asst	3/3/2009	114
7	EE, Physics	INS	Assoc, Full	9/4/2009	35
8	EE	open	Asst	Not posted yet	
9/10	BME (2)	INS & MRBS	Asst, Assoc, Full	8/19/2009	120
11	CSEE, MAE, ISE	ExEv	Asst, Assoc	12/8/2009	37
12	CSEE	ExEv	Asst, Assoc	1/4/2009	Too early



3. Research Initiatives

For the first two quarters (July–December) of 2009–10 SEAS submitted 235 proposals for \$192.2M, versus 202 proposals for \$192M in the first two quarters of 2008–09. These data show a continued upward trend; however, the rate of increase has declined compared to the rapid increase during 2008–09. This is probably expected and probably healthy. The rate of proposal growth in 2008–09 was unlikely to be sustainable, after all; once you win a proposal the need for new proposals shrinks.

Now that we have reached a high proposal plateau, we need to find ways to sustain a strong and steady proposal level balanced by an exemplary win-rate. The flow of research funding is critical to the future success of SEAS as a research-intensive engineering school.

With the additional funds made available through a potential graduate tuition sharing policy, enhancements to our research initiatives and graduate student recruitment and retention are possible. I have asked Associate Deans Rajan Batta and Stella Batalama to work with the Department Chairs, Graduate Academic Programs Committee, and the Research Advisory Committee and Research Area leaders to develop a series of programs and initiatives that are high-impact and low-cost ways to achieve sustained research output and simultaneously large MS enrollments. Preliminary ideas include:

- Awards, by research area, for excellent papers and theses
- Support for visits to and from program managers
- Reallocating the tedious parts of graduate student application processing
- Funds for attending important conferences
- Recognition and rewards for excellent graduate student work
- Cost sharing and release time for large multi-disciplinary research proposals

As these initiatives are formalized and funded, they will be announced by Stella and Rajan.



4. Development Report

The partial recovery of the stock market and the strengthening of the economy have helped restore confidence in many alumni and corporations who had, prior to the decline, indicated that they would like to do something significant for UB. This past quarter, the Development Staff and I made 17 visits to alumni, friends, and business leaders, in efforts to cultivate and gauge their support. The Development Staff, independent of me, made more than 40 additional visits. The conversations we had were extremely positive. Our alumni and friends, from Boston to San Francisco, are proud of UB and are glad that we have reached out to them in an effort to make us even better. These visits resulted in \$1.9M of financial support (gifts and grants) delivered this quarter from six of the individuals visited. Conversations with the other eleven were positive and have the potential of gifts totaling approximately \$4.1M. The donor's names will be announced in our next semi-annual *Buffalo Engineer*.



5. Metrics

The Dean's Office continues to update and enhance the data provided on our Metrics web site.

<http://www.eng.buffalo.edu/dean/metrics/signin/>

I encourage you to browse it when you have time and let me know if there are other types of data that you would like displayed. Currently the site contains:

Research

- Awarded Grants and Contracts
- Expenditures
- Research Proposal History
- Faculty Research Publications

Teaching

- Total School Enrollment - 1944 to 2008
- Credit Hours Taught by Departments
- Degrees Granted by Program and Level
- Student Teaching Evaluations

Awards

Student Diversity

- Undergraduates Demographics
- Undergraduate Gender
- Graduate Demographics
- In-State / Out-of-State

Student Teaching Evaluation results were added to the Metrics site last spring after launching the on-line course evaluation system. The site currently contains only the spring 2009 results; however the results for fall 2009 courses have been collected and will be posted shortly. Of note, we had a 58% return rate for the evaluations this past fall, compared to 51% in the fall of 2008 when we used the paper-based survey.



5. Events and Visits

Below is a brief list of important external events and visits during the past quarter.

Date	Visit or Event	Location	Purpose
10/1	Development Trip	Boston, MA	Discuss support of SEAS with two alumni
10/5	MedTech, Inc. Workshop	Syracuse, NY	Discuss opportunities in Biomedical Engineering
10/6	Goodarz Ahmadi, Dean, Clarkson University	UB North Campus	Hybrid Projectile workshop at UB
10/8	Dan Yankowski, President Praxair Global Hydrogen Business John Billingham, R&D Director, Praxair	Williamsville, NY	Discuss the participation of Praxair on the Dean's Advisory Council and support of SEAS
10/12	Sudhir Jain, Director, IIT Kanpur	UB North Campus	Discuss international programs with IIT Kanpur
10/13	American Society of Quality WNY Conference	Millennium Hotel, Buffalo	Presentation on Lean and Six Sigma activities at UB
10/16	Dean's Advisory Council	UB North Campus	Semi-annual meeting of the 24 member SEAS DAC
10/23	Development Trip	Syracuse, NY	Discuss support of SEAS with an alumna
10/26	Congressman Chris Lee	UB Campus	Congressman Lee's Task Force on Energy
10/26	Development Trip	Williamsville, NY	Discuss support of SEAS with an alumnus
10/29	Development Trip	Washington, DC	Discuss support of SEAS with two alumni
11/10	UB Foundation Board Meeting	UB North Campus	UBF quarterly board meeting
11/17	Development Trip	Buffalo, NY	Discuss support of SEAS with local business leader
11/18	Prof. Mallickarjun Joshi Banaras Hindu University	UB North Campus	Discuss possible programs with BHU
11/20	UB, RIT, U of R, SU, SUNYIT, SUNY Binghamton, AFRL	Griffiss Air Force Lab	State-wide consortium in information systems workshop
11/30	Dr. Shekar Babu, Amrita University	UB North Campus	Discuss startup of MS at Amrita University in Bangalore
12/3	Engineering Deans from Binghamton and Stony Brook	Albany	Discuss SUNY budget with SUNY staff and legislative representatives

12/8	Mr. Thomas Newman, NOCO Energy Corp.	Amherst, NY	Discuss collaborative research projects.
12/9	Development Trip	New York City	Discuss support of SEAS with five alumni
12/12–12/15	International Program Development Trip	Madrid Spain	Discuss possible exchange programs with University Carlos III in Madrid
12/15–12/17	International Program Development Trip	Istanbul, Turkey	Discuss enhancements to our dual degree program with the Istanbul Technical University
12/18–12/20	International Program Development Trip	Troyes, France	Discuss expanding summer engineering program with the University of Technology at Troyes
12/22	State Assemblyman Robin Schimminger	Buffalo, NY	Discuss pending SBIR and SPIR program legislation

If you would like more information on any of the topics in this quarterly report, please contact me.

Sincerely,
Harvey