

SECTION 4

EVALUATION OF PLAN

4.1. IMPLEMENTATION TIMETABLE

The implementation timetable for the above plan is five years. We plan to achieve the results of the plan by 2010.

We plan to increase our undergraduate student enrollment from 1550 to 1900. Table 4.1. shows the target growth plan of our undergraduate enrollment in six departments and the College of Engineering. We will do this by a variety of strategies that are described earlier. The increase in the enrollment will generate additional revenue to the college to hire additional faculty and teaching assistants.

Table 4.1. Undergraduate student growth plan in College of Engineering.

	AY06	AY07	AY08	AY09	AY10
B.S. students	1550	1650	1750	1850	1900

We plan to increase our graduate enrollment from 854 to 1000. We will increase the total number of graduate students to 1000 students and also change the relative mix of students in favor of more Ph.D. students. Specifically, we will target a total M.S. enrollment at 400, and total Ph.D. enrollment at 600. We will do this by a variety of strategies that are described in later sections. Table 4.2. shows our growth plan in graduate students.

Table 3.2. Graduate student growth plan in College of Engineering.

College grad students	AY06	AY07	AY08	AY09	AY10
MS	430	400	400	400	400
Ph.D.	424	525	550	575	600
TOTAL	854	925	950	975	1000

We plan to increase our faculty from our current number of 114 faculty to 130 by 2010. The faculty hiring plans are provided in Table 4.3. We plan to hire 28 new faculty over this period. We believe we will need to hire 16 new faculty and 12 replacement faculty.

Table 4.3. Faculty growth plan in College of Engineering

	FY06	FY07	FY08	FY09	FY10
College Faculty FTE	114	117	120	123	130

We plan to increase our Teaching Assistants from our current number of 92 half time positions to 106 half time positions by 2010

Table 4.4. Teaching Assistant growth plan in College of Engineering

	FY06	FY07	FY08	FY09	FY10
College Faculty FTE	92	96	100	102	106

We plan to increase our research funding from our current \$21 million in 2005 to \$40 million by 2010. Table 4.5 shows the growth plan.

Table 4.5. Research Funding growth plan in College of Engineering

FY05	FY06	FY07	FY08	FY09	FY10
\$21,000,000	\$21,000,000	\$25,000,000	\$30,000,000	\$35,000,000	\$40,000,000

4.2. PERFORMANCE METRICS AND RESULTS

The specific performance metrics for each of these issues are summarized below by categories.

4.2.1. Faculty

The specific performance metrics for 2010 for faculty are:

- Grow the total faculty size of the college to 130 faculty from its current 114 faculty positions.
- Hire 28 new faculty, 16 new and 12 replacement faculty through retirements and resignations
- Recruit faculty in clusters by growing selective areas of excellence
- Promote only the best faculty with national and international reputations
- Appoint four faculty as Chaired Professors
- Appoint 12 faculty with Professorships

- Have 75% of our Full Professors as Fellows of their societies such as IEEE, ASME, ASCE, ACM, AAAS.
- Have 50% of our Assistant Professors receive NSF CAREER awards by the time they are promoted to Associate Professorship
- Have 2% of our faculty in the Membership of the National Academy of Engineering
- Have women and minority individuals comprise at least 10% of our faculty; 15% of the new hires should be women or minorities.

4.2.2. Research

The specific performance metrics for 2010 for research are:

- Our faculty (size 114 in 2006 growing to 130 in 2010) should publish 500 journal papers and 500 conference papers per year in prestigious journals and conferences, an average of four journal papers and four conference papers per faculty per year.
- Our faculty should publish their papers in the top-ranked journals and conferences in their fields in order to have high impact.
- Our faculty should transfer technologies to industry by filing invention disclosures and patents
- Our faculty (size 114 in 2006 growing to 130 in 2010) should collectively bring in \$40 million in research funding by 2010, with an average of \$300,000 per year per faculty
- We will organize the research areas of the College into clusters of interdisciplinary research in the fields of Bio-technology, Nano-technology, Information Technology, and Infrastructure and Energy/Environmental Technology.
- We should submit at least five large interdisciplinary research proposals per year to agencies such as NSF, NIH, and DARPA at a funding level of greater than \$1 million per year per project
- We should get at least one large interdisciplinary research project funded per year by agencies such as NSF, NIH, and DARPA at a funding level of greater than \$1 million per year per project
- We should graduate 60 Ph.D.s per year at an average of 0.5 Ph.D. per faculty per year.

4.2.3. Undergraduate Program

The specific performance metrics for 2010 for undergraduate programs are:

- Grow the total undergraduate student population of the college from its current 1,550 students to 1900 students without lowering our standards for admission.
- Recruit high quality students to the engineering college; specifically, by 2010, we will increase the average ACT score of all incoming freshmen students from 25.8 to 27 and the average Projected Grade Point Average (PGPA) from 25 to of 27

- Provide students with access to an exciting and relevant undergraduate curriculum in engineering.
- Increase the number of B.S. graduates per year from 387 to 450
- Increase graduation rates from 60% to 80% in the college.
- Make sure that average students can graduate in five years if they take a full course load every semester.
- Make sure that diversity is reflected in the student population; ensure that 20% of our students are members of minority groups; ensure that 30% of our students are women.
- Raise funding for 12 additional undergraduate scholarships in the College of Engineering

4.2.4. Graduate Program

The specific performance metrics for 2010 for graduate programs are:

- Increase the total number of graduate students from 854 students to 1000 students
- Change the mix of students in favor of more Ph.D. students than M.S. students
- Target M.S. enrollment at 400
- Target Ph.D. enrollment at 600
- Ensure that M.S. students can graduate in two years if they take a full course load every semester
- Ensure that Ph.D. students can graduate in five years if they take a full course load every semester
- Increase M.S. graduation rates to 80% in the college
- Increase Ph.D. graduation rates to 75% in the college
- Limit the number of M.S. graduates per year to 200
- Increase the number of Ph.D. graduates per year from 41 to 60
- Recruit high quality Ph.D. students with an average GRE score of 770/800 in quantitative, average score of 600/800 in verbal, and average score of 730/800 in analytical (suitably adjusted for the new analytical writing test with a scale from 0 to 6).
- Provide students with access to an exciting, relevant and interdisciplinary graduate curriculum in engineering
- Ensure that diversity is reflected in the student population. Ensure that 10% of our graduate students are minority; Ensure that 20% of our graduate students are women
- Raise funding for 12 additional graduate fellowships in the College of Engineering.

4.2.5. Professional and International Programs

The specific performance metrics for 2010 for professional and international programs are:

- Deemphasize the current Master's of Engineering (MENG) program with internet courses
- Focus the energy on developing Professional Masters Programs with live instruction
- Master's in Bio-technology, Information Technology, Energy Technology
- Have at least 60 students in each program over two years
- Focus on strong international programs with a select set of universities
- Make the programs financially profitable

4.2.6. Corporate and Alumni Relations

The specific performance metrics for 2010 for corporate and alumni relations are:

- Create an integrated office of Corporate Relations and Student Career Placement
- Work with the UIC Career placement office to ensure program consistency and leveraging of tools and activities.
- Target placement of UIC engineering students in top companies
- Evolve present Co-op/Internship program to be industry driven and fully Web-based.
- Actively promote Co-op/Internship program to achieve over 90% enrollment of qualifying students.
- Increase College of Engineering staff/capacity to support at least a 70% placement rate of the enrolled base in the Co-op program.
- Assist the career placement of undergraduate and graduate engineering students by more effectively bringing industry to UIC. Improve tracking and follow up of graduating students. Provide post graduation career service support to the engineering alumni base.
- Create an Industrial Advisory Board consisting of 24 members from companies, two from government agencies, four Deans of Engineering from other universities, and three Venture Capitalists
- Successfully raise \$50 million through fund raising from alumni, friends, and companies with the following breakdown.
 - Endowed Chairs \$8 million (Four chairs at \$2 million each)
 - Professorships \$6 million (12 total at \$500,000 each)
 - Graduate Fellowships \$3 million (12 total at \$250,000 each)
 - Undergraduate Fellowships \$1.8 million (12 total at \$150,000 each)
 - Research Funds \$2 million
 - Facilities \$16 million (Classroom, lab renovation \$1 million; New building \$15 million)
 - Annual Giving \$700,000
 - Gift in kind \$12 million (Software and equipment donation)

4.2.7. Marketing and Rankings

The specific performance metrics for 2010 for marketing and rankings are:

- Study the rankings of engineering colleges and departments in US News and World Report and evaluate the criteria
- Prepare marketing and communications materials (printed and electronic) for various constituents to improve the reputation of the College.
- Separate materials to be prepared for visitors, various Engineering Deans, various department Chairs across the country, prospective students, current undergraduate and graduate students, parents of current students, various companies, and federal agencies.
- Coordinate the development of a better Web page for the College and the various departments.
- Coordinate the development of various printed materials (Undergraduate Programs, Graduate Programs, Research Report, Alumni Magazine).
- Improve the overall graduate and undergraduate rankings of the College of Engineering of UIC in US News and World Report from the current 59 to 40

4.2.8. Administration and Staff

The specific performance metrics for 2010 for administration and staff are:

- Provide resources to maintain efficient administrative and technical staff in the College of Engineering.
- Increase the total number of staff in the College of Engineering from 71 to 75.
- Provide competitive salaries for all staff in the College of Engineering to make the UIC salaries competitive with Big Ten Plus salaries.
- Improve the morale and effectiveness among the staff members.