



**College of Engineering:
Review of Unit Summaries for Chancellor Steinmetz
Summer 2016**

On August 15, 2016, the College of Engineering (COE) Strategic Planning Council (SPC) met to review and discuss our eight departmental strengths, weaknesses, opportunities, and priorities for the future (SWOP) summaries to develop this COE campus planning report. The council includes our eight unit department heads and selected members of the COE staff. The COE has an existing strategic plan that is the product of an 18-month “deep-dive” into the COE strengths, weaknesses, opportunities and threats (AY 2014-2015). In summary form, the strategic plan is found on pages 8-9 of our 2015 COE Fact Book (<http://engineering.uark.edu/about-us/2015-fact-book-web.pdf>). The COE Fact Book is developed as an annual progress update on our strategic plan.

1. **Vision:** Unquestionably, the units undergird the COE vision to “pursue excellence in research, scholarship, and education, ensuring personal and professional growth for future generations of engineering leaders who will stimulate prosperity for Arkansas, the nation and the world.” We drill that down to our tagline: “**Preparing you for your tomorrow.**” This observation is consistently echoed in the summaries by the overwhelming desire to grow our research enterprise in the context of balanced growth of undergraduate (UG) students, graduate (G) students, faculty, and staff. There is a great desire to sustain excellence in all dimensions
 2. **SWOP Assessment:** The SPC review of our unit summaries identified three key strengths: S1) High quality of our engineering undergraduate program and students, S2) High quality of our faculty, and S3) Existing interdisciplinary educational programs and research centers. Three weaknesses were identified: W1) Insufficient quantity of faculty/high UG student to faculty ratio, W2) Low quantity and quality of graduate students, and W3) Insufficient teaching and research space. Our key opportunities are: O1) Increase quality and quantity of Ph.D. graduate students, O2) Increase and diversify research funding, O3) Increase visibility and marketing of departmental accomplishments, and O4) Develop new unit revenue-generating online/distance educational programs. Examination of these strengths, weaknesses, and opportunities led to our Priorities for the Future.
 3. **Priorities for the Future:** In no particular order, the future priorities that emerged from our unit summaries review and how they align with our COE Strategic Plan Objectives are as follows:
 - P1) Increased high-quality PhD student production** (aligns with our college Objectives to *Increase student quality and diversity, Provide student centered education, Recruit and retain high quality faculty and staff, Increase research productivity, Increase alumni and corporate partnerships*): To support increased research productivity and improved visibility, we need to recruit higher quantity
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and quality Ph.D. students through market-driven, proactive recruiting practices and competitive stipends and fellowships. We need to improve our graduate programs within the units in terms of diverse student populations, curriculum development, student services, graduation rates, and placement. It is critical to seek a balance where we improve our graduate programs without negatively impacting the success of our undergraduate programs. Achieving balanced growth and workload distribution of existing and new faculty and staff is critical to this.

- P2) Expansion of research funding** (aligns with our college Objectives to *Recruit and retain high quality faculty and staff, Increase research productivity, and Increase economic development*): An expansion of research funding through increased collaborations within and outside the University is critical to the future success of the units. Through increased reach into the industrial world and interdisciplinary efforts to create and sustain world-class consortia, we can increase our external research funding in our COE research strengths and emerging areas. We need to stay on the cutting edge of national/international priorities and build and retain a sufficiently sized faculty, staff, and student body that supports these efforts.
- P3) Expansion of research and teaching facilities** (aligns with our college Objectives to *Provide student centered education, Recruit and retain high quality faculty and staff, Increase research productivity, and Provide high quality infrastructure*): There is a clear and an urgent cry for expanded research and teaching space across all units. Most units are at capacity, and unquestionably space, along with increased technical staff support and research active faculty, are critical to the future of the units' research programs. Development of core research facilities and research centers of excellence should be explored and sustainably funded.
- P4) Improved unit visibility** (aligns with our college Objectives to *Increase student quality and diversity, Recruit and retain high quality faculty and staff, Increase research productivity, and Increase alumni and corporate partnerships*): The units' USNWR graduate rankings depend entirely on peer perception. External perception also influences faculty and student recruiting, professional recognitions, and peer reviews. Promotion of our unit successes and unique capabilities is critical to supporting future successes.
- P5) Development of revenue-generating streams** (aligns with our college Objectives to *Provide student centered education and Increase alumni and corporate partnerships*): To supplement revenue streams for the units in a focused and strategic fashion. Examples that are being considered are: expanding market-driven online/distance education programs, implementing differential tuition for engineering students, increasing the intensity of fundraising activities, etc.

In summary, our unit summary review has substantiated and validated the COE's strategic plan, and we believe our current strategic objectives support the opportunities presented by this exercise. It is clear that this planning effort has done volumes in articulating the basis to our future at the UA and how we fit into the overarching campus plan for the U of A.