

Wichita State University
College of Engineering Strategic Plan
2015

University Goal 1: *Guarantee an applied learning or research experience for every student by each academic program.*

College Goal 1: Expand student population and applied learning and/or research experiences in the program curricula for students.

Strategy 1.1 - Expand real-world* and research experiences in the program curricula.

Strategy 1.2 - Include entrepreneurship** and substantial real-world* examples in the program curricula.

Strategy 1.3 - Increase annual graduation numbers from 210 UG and 9 PhD in 2013, to 400 UG and 40 PhD by 2021, while maintaining the number of MS graduates to around 200. This will include increasing enrollments from 1,793 UG and 109 PhD in 2013, to 3,000 UG and 200 PhD by 2021, while maintaining the enrollment of MS Graduates to around 650.

Action Items, Metrics and Targets

- Design and construct the new Engineering Innovation Building by January 2017
- Account for including real-world* and research experiences in the classroom in the faculty annual review
- Account for including entrepreneurship and substantial real-world* examples in the classroom in the faculty annual review
- Establish a task-force to investigate and develop other actions.
- Increase faculty and staff numbers
- Expand the number of degree programs
- Invest in recruitment and retention
- Establishing competitive PhD stipends
- Allow BS graduates to apply directly into our PhD programs.

Evaluative Processes

- Monitor student enrollment and graduation statistics every semester

* Real-world experience is defined as a course that includes a major design or project level experience that incorporates Blooms Taxonomy at the synthesis level.

** Entrepreneurship is defined as courses that incorporate the innovation process, technology translation, and/or business development.

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University Goal 2: *Pioneer an educational experience for all that integrates interdisciplinary curricula across the university.*

College Goal 2: Pioneer an educational experience for all that integrates interdisciplinary curricula across WSU and other universities.

Strategy 2.1 – Increase the number of faculty joint appointments by 10% by the year 2021.

Strategy 2.2 – Increase the number of interdisciplinary courses offered, taught by faculty from different colleges.

Strategy 2.3 – Create an interdisciplinary program across colleges.

Action Items, Metrics and Targets

- Establish a task-force on interdisciplinary relations.
- Establish a task-force on interdisciplinary relations to expand interdisciplinary course offerings.
- Establish a task-force on interdisciplinary relations to add programs, such as a Master of Design Degree.

University Goal 3: *Capitalize systemically on relevant existing and emerging societal and economic trends that increase quality educational opportunities.*

College Goal 3: Capitalize systemically on relevant existing and emerging socioeconomic trends that increase quality educational opportunities.

Strategy 3.1 – Identify additional annual resources and the infrastructure to support the targeted student growth.

Strategy 3.2 – Increase the number of faculty and staff from 66.5 and 26 in 2013 to 110 and 50 by 2021, respectfully. This is needed in order to support the targeted student growth while assuring a quality education.

Strategy 3.3 – Expand the number of engineering course sections online by 20% by the year 2021.

Action Items, Metrics and Targets

- Each department or program will report on their additional annual resources and the infrastructure needed to support their targeted student growth.

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- Establish multiple sources of income (examples include differential fees/tuition, research proposals that generate faculty release time, and increase in College of Engineering base budget) needed to support additional faculty and staff lines.
- Promote WSU incentives and training needed to help faculty offer online courses, and including online courses taught as part of annual faculty evaluations.

University Goal 4: *Accelerate the discovery, creation and transfer of new knowledge.*

College Goal 4: Accelerate the discovery, creation, and transfer of new knowledge.

Strategy 4.1 – Increase externally funded annual research expenditures (beyond NIAR engineering expenditures) from \$7.5M in 2013 to \$12M by the year 2021.

Strategy 4.2 – Increase the expected amount of scholarly productivity (quality journal articles and conference proceedings, patents, tech transfer, and citations) per faculty member to include two journal publications per year and \$120K in external funding per faculty member.

Action Items, Metrics and Targets

- Take advantage of funding opportunities, considering faculty teaching loads and faculty reward guidelines to focus more on external funding, organizing research working groups, and creating endowed chairs.
- Consider faculty teaching loads and faculty reward guidelines to focus more on scholarly activities, and establishing a faculty innovation (professional development) fund.

University Goal 5: *Empower students to create a campus culture and experience that meets their changing needs.*

College Goal 5: Empower students to create a campus culture and experience that meets their changing needs.

Strategy 5.1 – Create teaching and laboratory spaces that align to changing instructional methods.

Strategy 5.3 – Create spaces for students to innovate and discover.

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Action Items, Metrics and Targets

- Design and construct the Engineering Innovation Building by January 2017, which will facilitate needed innovative instructional methods.
- Design and construct an Engineering Innovation Building by January 2017, which will facilitate needed innovation, entrepreneurship, and hands-on experiences, submit proposals to acquire funds to build maker-spaces and purchase equipment, and establish a student innovation (professional development) fund.

University Goal 6: *Be a campus that reflects—in staff, faculty and students—the evolving diversity of society.*

College Goal 6: Be a campus that reflects—in staff, faculty and students—the evolving diversity of society.

Strategy 6.1 – Increase percentage of underrepresented groups of faculty, staff, and students to at least 30% each by the year 2021 (Presently, 17% of faculty, 11% of staff, and 18% of students are from underrepresented groups).

Strategy 6.2 – Create a program to assure the success of the diversity goal.

Strategy 6.3 – Identify the infrastructure to support the initiative.

Action Items, Metrics and Targets

- Actively recruit faculty, staff and students from underrepresented groups, pursue opportunity hires, and establish a task-force on diversity.
- Charge the diversity task force to create such a program.
- Charge the diversity task force to identify the infrastructure and support required.

University Goal 7: *Create a new model of assessment, incentive and reward processes to accomplish our vision and goals.*

College Goal 7: Create a new model of faculty and staff assessment, incentive, and reward to accomplish our vision, mission, and goals.

Strategy 7.1 – Align tenure and promotion requirements to the college vision, mission and goals.

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Strategy 7.2 – Align reward and compensation structure to the college vision, mission and goals.

Action Items, Metrics and Targets

- Charge the T&P committee to modify guidelines for tenure and promotion to reflect the College of Engineering Strategic Plan.
- Charge a committee to modify guidelines for faculty and staff evaluation criteria to reflect the College of Engineering Strategic Plan.