

COLLEGE OF ENGINEERING, ARCHITECTURE & TECHNOLOGY

CHEMICAL ENGINEERING

STRATEGIC PLAN 2014-2018



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CHEMICAL ENGINEERING AT OKLAHOMA STATE UNIVERSITY is home to some of the university highest quality students, faculty and staff. There is no chemical engineering department in the United States that can document greater undergraduate student success than OSU. The OSU Chemical Engineering faculty are committed to scholarly excellence and are working to achieve the administration's goal to increase research expenditures.

Consistent with ABET terminology, "Educational Objectives" are the desirable attributes and accomplishments of OSU CHE B.S. graduates expressed during the first few years after graduation.

Most students seek private sector employment immediately after graduation. However, others enter professional schools (medical, law, or business) and some engineering graduate school. Some enter the military. It is common for some to leave professional practice and pursue a full-time commitment to raising a family. Regardless of the life path, there is a commonality in the activities, achievements, point of view, and style that lead to happiness and success in these after-graduation challenges.

After graduation, success is strongly dependent on personal commitment to the mission of the organization and independent learning. Contributions are most likely to occur when the new employee enjoys his situation, is enthused with the opportunities, is committed to the mission, and is comfortable enough with self and personal life to be free to work for others. Each organization will have identified desired attributes of employees, and these will be unique to the organization.

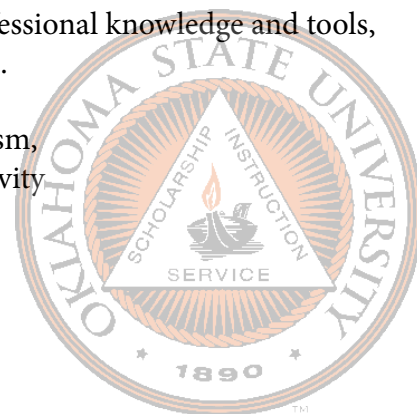
From this viewpoint our programs educational objectives desire that within the first few years after graduation, graduates from the School of Chemical Engineering at Oklahoma State University will be prepared for effective careers in chemical and related industries and will have the intellectual and social maturity to contribute to society.

MISSION

The mission of the School of Chemical Engineering at Oklahoma State University is to develop human resources, professional knowledge, and the infrastructure through which chemical engineering can contribute to human welfare. We expect to maintain national recognition for our contributions.

VISION

1. Sustain a nationally competitive undergraduate program recognized for quality, fundamental-practice balance, and educational leadership.
2. Attain widespread recognition for contributions to professional knowledge and tools, which are useful, widely accepted, and practiced by others.
3. Sustain and create infrastructures that facilitate synergism, creativity, personal and professional growth, and productivity by students and professional personnel both within OSU and the outside world.



GOALS: Maintain educational excellence and increase research productivity.
Leverage and collaborate with new programs and existing successes.
Focus on creating a strong foundation during the two-year staffing transition.
Develop individual plans that result in improved unit productivity.
Provide a direct link between performance and compensation.
Take advantage of the strong economy while the opportunity presents itself.

METRICS FOR GOALS

- Increase faculty size from 12 to 20.
- Award 60 B.S. degrees per year.
- Triple research productivity.
 - 30 combined M.S. & Ph.D.s per year.
 - 4 million \$ / year research expenditures.
 - Top 50 % NRC ranking by 2015.
 - Top 33 % NRC ranking by 2020.
- Utilize new seminar courses to address math skills, soft skills and improve retention.
- Create individual faculty plans to increase scholarly output.
- Implement method to reduce average time to graduation by 0.5 yrs for M.S. and Ph.D.
- Complete CHE office space remodel and expansion (essential).
- Revisit CHE grad program policies and procedures.
 - Grad student recruiting and stipends.
 - Incentivize reduction in time to graduation.
- Identify research collaboration opportunities and create multi-disciplinary centers for niche specialties.
 - Cement (in-progress).
 - Mid-stream, Water, Ethane/Propane, Drilling.
- Maximize hands-on/eyes-on experience in Petroleum courses.
- Leverage strong Petroleum Industrial Advisory Board with equal representation from national/
multi-national and OK-based companies.
- Tenure-track staffing plans.
 - CHE: 2+ replacement; 1+ targeted growth.
 - PetE: 1 new (current search); 1+ possible growth.
- Create case for growing the Bio cluster to take recent success to the next level.
- Major shift in operating paradigm (practice -> research).
- Minimize impact of retirements and loss of 124+ years of experience.
 - Standardize instructional policies and procedures.
 - Implement formal mentoring program for new faculty.
 - Use Clinical Professors to provide industrial practice.