Transformational. Texas A&M Engineering

Addressing the critical need for more engineers in the United States requires transformational action. To remain competitive in the global marketplace, American higher education cannot address the challenge through gradual, evolutionary steps: it’s time for revolutionary thinking in engineering education. The Dwight Look College of Engineering is committed to elevating excellence in engineering education and research to new heights. The 25 by 25 initiative infuses the new energy required to elevate our program. It is more than a thoughtful approach to advancement; it is a transformational vision.
Focus 1

Transformation of Undergraduate Engineering Education

Provide high quality engineering education that prepares students to be future engineering leaders

• Enrich opportunities for global experiences
• Bring hands-on engineering problems into the classroom
• Enhance resources (facilities, faculty and staff) to meet the growing demand for undergraduate engineering education

Optimize time to graduation

• Develop effective student engagement strategies
• Use technology and digital media effectively to complement personal advising and mentoring
• Increase resources devoted to student success

Educate a diverse population of students

• Recruit and retain a diverse student population
• Increase partnerships with community colleges
• Develop engineering K-12 outreach programs
Focus 2

Develop a World-Class Research Portfolio

Engage faculty in large-scale multidisciplinary research
- Identify and support multidisciplinary shared facilities
- Incentivize entrepreneurship and technology transfer
- Establish international research collaborations in strategic areas

Strengthen engagement in strategic areas
- Utilize 25 by 25 faculty positions to recruit research leaders
- Engage industry and national research laboratories with multidisciplinary research and technology development
- Incentivize faculty to become involved with state, federal and international agencies

Support faculty pursuing center-level proposals
- Assist faculty with large-scale funding opportunities
- Provide logistical and financial support for preparation of multidisciplinary proposals
- Provide seed-funding to form new multidisciplinary faculty collaborations
Focus 3
Graduate Program Excellence with World-Class Research

Balance domestic and international student enrollment in doctoral programs
- Support doctoral programs to effectively recruit and retain domestic students
- Increase the exposure of undergraduate students to research
- Develop partnerships with national and international universities to recruit top students

Enhance MS and MEng programs
- Develop new distance programs to meet demand for professional education
- Strategically grow enrollment in existing campus programs
- Expand distance learning programs with joint industry partnerships

Increase high impact career opportunities for graduate students
- Provide career support for doctoral students pursuing academic careers
- Expand graduate-level industry internship program
- Increase graduate student involvement in entrepreneurship activities
Focus 4

Faculty Development

Preeminent Faculty Development

- Recruit and retain faculty who are global leaders in their fields
- Hire faculty in clusters of expertise for areas of existing strengths and strategic research areas
- Raise endowments to retain high-performing faculty and leverage System-wide opportunities such as the Chancellor Research Initiative

Enhance Faculty Visibility

- Proactively nominate faculty to national-level awards, society fellowships and academy memberships
- Encourage and facilitate faculty appointments at federal funding agencies and engage with state and federal officials
- Promote faculty achievements through digital media

Support Faculty Leadership Opportunities

- Enhance faculty mentoring through all ranks
- Strategically promote faculty development leave opportunities
- Realign faculty reward structure to promote multi-disciplinary research and joint appointments