CoE OVERALL STRATEGIES

1. Invest in the strength(s) of each department within the CoE by (a) hiring new talent and (b) ensuring retention of the current strengths.
2. Invest in entirely new disciplines/departments that are needed to strengthen the CoE as a whole
3. Invest in a flexible matrix organization to foster excellence in research, education and innovation in overarching interdisciplinary themes / societal problems.
4. Invest in a new building to host the transformed CoE and provide the best physical structure for interdisciplinary research, education and innovation.
5. Invest in an agile, transparent and capable administration that can support the CoE research, education and innovation mission.
6. Create a culture of belonging throughout the CoE.

RESEARCH

- Aim to drive the College of Engineering into the top quartile of engineering research rankings
- Recruit and Retain Faculty With Research Excellence
- Invest in core facilities/buildings for research labs
- Invest in research staff to support research programs
- Develop Infrastructure for Interdisciplinary Research & Teaching
- Build Bridges Between CoE and other UM Schools and Colleges
- Identify strategic areas where translational alliances can be built with Arts and Sciences, Miller School of Medicine, RSMAS, the School of Architecture, and the School of Business,
- Facilitate research collaboration with the promotion of dual appointments and the creation of trans- department and college research centers
- Invest in four problem-based interdisciplinary collaboration across Departments within the College of Engineering and across Schools and Colleges at the University level:
    1. Materials Engineering
    2. Smart, Sustainable and Resilient City (Smart City)
    3. Healthcare Analytics and Medical Decision-Making
    4. Neural Engineering
- Invest in flagship programs and pursue cluster hiring for interdisciplinary priorities
- Initiate internal funding mechanisms to seed potentially successful large scale interdisciplinary collaborations
- Establish a bridge fund mechanism to maintain healthy research programs

EDUCATION

- Invest in core facilities for instructional labs and innovative classrooms & instructional methods
- Invest in educators and lecturers to enhance educational programs
- Recruit & retain/graduate high quality BS students
- Embrace the Engineering Education Reform through Innovation and Entrepreneurial Mindset
- Create interdisciplinary student projects with students from other schools & colleges
- Develop and offer courses relevant to industry
- Increase enrollment for MS students
- Develop interdisciplinary Master's programs supervised by Industry Advisory Boards, such as: "MS in Cybersecurity", "MS in Nanotechnology", "MS in Energy Management", "MS in Healthcare Analytics"
- Create new team-taught problem-based courses on cross-disciplinary topics
- Attract and support High Quality PhD Students
- Revamp graduate curricula, encourage trans-department and college coursework
- Create cross-disciplinary seminar series and networking events
- Equip students to develop graduate fellowship applications
- Provide a meeting space for students to promote interdisciplinary interaction
- Improve engineering student life by creating:
    o Innovation café and design studio
    o Maker space / Machine Shop
    o Senior Design Expo
    o Study Abroad
- Invest in Faculty Development
    o STEM Learning Community
    o Develop partnership with Olin College of Engineering
    o Create incentives for mentoring

INNOVATION

- Focus on translation and commercialization of novel science and technologies
- Provide tangible incentives and rewards for entrepreneurial activities
- Market UM CoE as a South Florida hub for innovation
- Develop formal BS/MS internship program with UM partners in Industry and Government
- Create CoE positions for "Professors of Practice" and hire industry executives to fill them on a temporary contractual basis
- Invest in resources for formal training in soft-skills such as leadership and entrepreneurship
- Create a spectacular incubator space that inspires and facilitates teaming and training for university spinouts
- Encourage interdepartmental, inter-college and inter-university research collaborations
- Assign value to interdisciplinary collaborations, recognizing its value during the evaluation of promotion and tenure
- Foster an entrepreneurial ecosystem that holistically encompasses all components of the academic curriculum
- Create a nest where the community (students, staff and faculty) has access to an all-inclusive workshop with the necessary tools and resources to deliver designs and prototypes of manufactured works
- Establish a framework where external entrepreneurial connectors can inspire and engage the CoE community
- Create a platform for collaboration to support innovation & entrepreneurship
- Provide leadership to identify internal strategic actions that will encourage students, faculty and staff to pursue innovation

ADMINISTRATION

Improve Shared Governance
- Adopt fair and transparent hiring policies for staff and faculty
- Align CoE with University HR Benefits/Rules/Regulations
- Team building and shared responsibilities with faculty and student groups
- Emphasize accountability at all levels
- Develop standardized procedures across departments to assure continuity in administration and in procedures

Improve Communication
- Remove language, age and seniority barriers
- Apply an open door policy between upper management and employees/students
- Redesign website
- Create a culture of customer service at all levels

Invest in Professional Development
- Invest in Faculty/Staff development
- Host workshops on pedagogy and interconnections with other fields by branching out to excellent faculty outside of CoE. "Lunch and Learn" type of workshops

Streamline Operations
- Establish an electronic reservation system to manage conference room reservation across departments
- Improve advising and clearing of files
  - Provide yearly training sessions to both faculty and staff
  - Provide students with booklets to track their progress
- Invest in Award Management
  - Hire additional research administration personnel and assemble a team to better assist faculty
  - Organize inter-university meetings to promote collaborations
  - Invite funding agencies to visit CoE or implement regular visit to agencies
  - Encourage faculty to serve as reviewers on panels and study sections

Increase Quality of Work Life
- Update equipment and provide dual monitor screens to increase productivity
- Reorganize, reconfigure workplaces to assure an ergonomic environment for employees (possible senior project design or CoE grant)
- Start CoE family fun days tradition

CULTURE OF BELONGING

Develop a Culture of Belonging for Students
- Improve the student's perception on how well they are treated by their advisors
- Increase student involvement in the CoE community
- Improve access to university support (financial, moral, and academic)
- Improve student/faculty communication for students to feel better supported
  - Develop and monitor metrics to quantify students' involvement
  - Improve student access to information and encouraging students utilization of all university resources
  - Improving students networking skills
  - Provide more academic support to students
- Facilitate means for students in providing anonymous, safe, effective and timely feedback on teaching
- Invest in an Ombudsperson to support students

Develop a Culture of Belonging for Faculty and Staff
- Create a formal program to train advisors. Training can focus on:
  - Improving faculty customer service
  - Welcoming students and treating them with respect
  - Creating a sense of advising responsibility and accountability
  - Eliminating the potential disconnect between freshmen/sophomore advisors and department advisors.
- Develop and implement Small seminars with Faculty Advisors to discuss academic issues and channel student issues
- Increase faculty communication with other students and with other faculty
- Improve web-based and social media communication for CoE
- Provide support for teaching faculty to address student feedback
- Provide mentoring for tenure-track faculty
- Increase diversity of gender, race, and culture by intentional hiring of new faculty, i.e., actively identifying and recruiting qualified faculty
- Emphasize demonstration of empathy and teaching skills when hiring faculty

Improve Faculty-Staff relations
- Organize monthly social events (e.g., happy hours)
- Create round tables for staff
- Organize a joint faculty/staff retreat
- Identify ways of recognizing staff
- Clarify expectations – both staff for faculty and faculty for staff
- Invest in more staff to better support faculty