

**EXECUTIVE SUMMARY**

**Item Name: Request for a New College of Engineering, Informatics and Applied Sciences at Northern Arizona University**

Action Item

**Requested Action:** Northern Arizona University asks the board to approve a request to reorganize the College of Engineering, Forestry and Natural Sciences into two colleges, effective AY 2018-2019.

**Background/History of Previous Board Action**

- The existing College of Engineering, Forestry and Natural Sciences will be split into the following two colleges: College of the Environment, Forestry & Natural Sciences and the College of Engineering, Informatics and Applied Sciences.
- The creation of a stand-alone college housing engineering and units related to informatics and applied sciences will create visibility and branding, contributing to increased enrollments, research expenditures, donor engagement, and workforce development in high demand fields. These outcomes would in turn contribute to meeting the ABOR 2025 metrics and will increase institutional rankings for the programs and the institution.

**Discussion**

- The current Engineering units serve just over one third of total students in the parent College of Engineering, Forestry, and Natural Sciences (2,758, 36%). At launch, the new college will offer eight undergraduate degree programs, whose Fall 2017 enrollments reached 2,758, six masters programs with F17 enrollments of 55, and two cross-disciplinary PhD programs with F17 enrollments of 24. We anticipate an average increase of 3-5% enrollment growth per year (with a mix of new students and current students changing their majors to engineering), resulting in over 3,300 undergraduates and over 90 total graduate students by Fall 2022. This corresponds to an additional 80-130 undergraduate students per year in the College. The NAU Office of Enrollment Management and Student Affairs reports that, in addition to the students who did enroll at NAU, another 4,500 students with intended majors in Engineering across Fall 2016 and 2017 (combined) declined to enroll. Therefore, we believe that a sizable pool exists for student recruitment, and that increased visibility and an expansion of degree offerings will increase our enrollments.
- The creation of a stand-alone engineering college will contribute to all four ABOR Enterprise Goals. With a focused application of existing institutional resources, we

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will increase enrollments, degrees, and research expenditures. Goal One: Educate – We project increases in undergraduate and graduate enrollments with an expansion of degree offerings. Goal Two: Achieve – We project that increased enrollments will contribute to increased Bachelor’s and graduate degrees. Goal Three: Discover – We anticipate that

increases in hiring of research active faculty will lead to increased research expenditures and invention disclosures. Our current Engineering units produced 8.5% of our \$39.6M FY16 research expenditures, compared to an average of 23% produced by Engineering units in public institutions classified in the Carnegie R2 category. It is clear that external research support is available. Goal Four: Impact – The disciplines of Engineering, Informatics, and Applied Sciences are among the high demand fields identified by the Board. The Arizona Office of Economic Opportunity predicts that by 2024 there will be over 12,000 new jobs in engineering occupations and over 35,000 jobs in computer occupations. NAU is eager to contribute to the State’s needed workforce development.

- The newly formed College of Engineering, Informatics and Applied Sciences will initially be launched with an Interim Dean and Interim Associate Dean on special assignment. Additional staffing in the Dean’s Office will include an Associate Director, Research Support Coordinator, Development Director, and Assistant to the Dean (FY19). After the launch, we will seek an Inaugural Dean and Associate Dean (FY20 or FY21). Current advising staff in the Engineering units will transfer to the new College. Additional resource needs will be handled through internal re-allocation.

**Committee Review and Recommendation**

The Academic and Student Affairs Committee reviewed this item at its May 31, 2018 meeting and recommended forwarding the item to the full board for approval.

**Statutory/Policy Requirements**

ABOR Policy 2-223.A, The Academic Strategic Plan

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**ACADEMIC ORGANIZATIONAL UNITS**

**Table 1 - Proposed New Academic Units**

Proposed Unit and Effective Date	Level (College, School, or Department)	Location (College, School, etc. where it will be located)	Brief Description (max 50 words)	Justification/need (max 100 words)	New Resources, if any, and Source* Savings/Efficiencies Gained
College of Engineering, Forestry and Natural Sciences will be split into the following two colleges: <ul style="list-style-type: none"> <li>• College of Engineering, Informatics and Applied Sciences</li> <li>• College of the Environment, Forestry &amp; Natural Sciences</li> </ul>	College	Flagstaff, AZ	Reorganization of the College of Engineering, Forestry and Natural Sciences  Currently one College, three schools, one center and 5 departments: <ul style="list-style-type: none"> <li>• School of Informatics, Computing, and Cyber Systems (SICCS)</li> <li>• School of Earth Sciences and Environmental Sustainability (SESES; recently approved to re-name as School of Earth and Sustainability, SES)</li> <li>• School of Forestry</li> <li>• Center for Science Teaching and Learning</li> <li>• Chemistry &amp; Biochemistry</li> <li>• Civil Engineering, Construction Engineering</li> </ul>	This change will accomplish several goals: <ul style="list-style-type: none"> <li>• Allow the colleges to refocus, enhance and strengthen their research and educational missions</li> <li>• Allow programs with similar teaching-focused missions to combine, thus providing each with similarly-oriented colleagues; and</li> <li>• Enhance existing collegial relationships with others in similar disciplines, potentially fostering additional cross-disciplinary programs.</li> </ul>	Faculty and staff resources will remain unchanged in the schools and the centers. However, additional administrative positions will be needed.  Physical facilities will remain unchanged for the schools, the centers and the College of Engineering, Informatics and Applied Sciences (with the exception of some office moves)  Current library holdings are adequate. There are no implications for

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			<p>and Environmental Engineering</p> <ul style="list-style-type: none"> <li>• Mathematics &amp; Statistics</li> <li>• Mechanical Engineering</li> <li>• Physics &amp; Astronomy</li> </ul> <p>To become two colleges:</p> <ul style="list-style-type: none"> <li>• College of Engineering, Informatics and Applied Sciences                             <ul style="list-style-type: none"> <li>✓ School of Informatics, Computing, and Cyber Systems (SICCS)</li> <li>✓ Dept. of Civil Engineering, Construction Engineering, and Environmental Engineering</li> </ul> </li> <li>✓ Dept. of Mechanical Engineering</li> </ul> <ul style="list-style-type: none"> <li>• College of the Environment, Forestry and Natural Sciences                             <ul style="list-style-type: none"> <li>✓ School of Forestry</li> <li>✓ School of Earth and Sustainability</li> <li>✓ Center for Science Teaching &amp; Learning</li> <li>✓ Dept. of Biological Sciences</li> <li>✓ Dept. of Chemistry &amp; Biochemistry</li> </ul> </li> </ul>	<p>The ultimate goal is to simplify the structure in the College of Engineering while strengthening the common interests of faculty.</p>	<p>program accreditation with any programs.</p> <p>Sources of funding remain the same. No new appropriations are requested.</p>
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