

ACADEMIC AFFAIRS COMMITTEE

February 6, 2015

Minutes

The meeting was called to order at 11:22 a.m. by Governor Dunaskiss in the Ballroom at the Student Center Building. Secretary Miller called the roll. A quorum was present.

Committee Members Present: Governors Dunaskiss, Kelly, O'Brien, Pollard, and Trent; Linda Beale, Faculty Representative and Jane Fitzgibbon, Faculty Alternate Representative; Kristin Tarp, Student Representative

Also Present: Governors and President Wilson, Provost Winters, Vice Presidents Lessem, Lindsey, Nork, Ratner, Ripple, Staebler and Wright, and Secretary Miller

APPROVAL OF MINUTES, DECEMBER 5, 2014

ACTION — Upon motion by Governor Pollard and seconded by Governor Trent, the Minutes of the December 5, 2014 meeting of the Academic Affairs Committee were approved as submitted. The motion carried.

COLLEGE OF ENGINEERING — DEAN'S PRESENTATION

As part of the ongoing series of presentations from the schools and colleges, Provost Winters introduced Dean Farshad Fatouhi to give an overview of the College of Engineering.

The College of Engineering adopted the Five-Year Strategic Plan in 2012. Its focal point was student success, and five practices were identified that were proven to increase student learning:

- **Experiential learning** — The College promotes itself as a place not only to get the best education in engineering but the best place for job placement and practice in the real world. About 88% of its students have at least one internship and 90% are employed in the state of Michigan.
- **Hands-on experience** — Students participate in team competition locally, nationally, and internationally, often with students from other disciplines such as business and communications. EcoCAR3 is such an example, a project funded for the last few years by the Department of Energy and General Motors to develop alternative fuel technology for a vehicle.
- **Global experience** — The College has identified universities in China, Austria, France, England, Spain and South American countries where WSU students can study abroad. There

were about 12 students in 2013, about 21 in 2014, and about 30 showed up at a recent Open House for the upcoming summer term.

- Undergraduate research — Engineering faculty are known for their research activity, and it is important that undergraduate students participate. Funding is provided for more than 20 students each year to work with the faculty.
- Scholarships — Funding is provided to help students keep good GPA's and to graduate on time.

Dean Fatouhi next gave a breakdown of the College's statistics including enrollment, degrees granted, and retention. There has been a 50% growth in total enrollment since 2010, with 69% of that growth among undergraduates and 27% graduate. About 50% of graduate students are international; 20% female and 9% African American. FTIAC students are coming in with an ACT average of 24.5 and a GPA of 3.45. The total enrollment of the College of Engineering is 2000 undergraduate and 1200 graduate, of which 300 are Ph.D. students and 900 Master's. Dean Fatouhi said that Wayne State's undergraduate program in engineering is the fourth largest in Michigan, and its engineering graduate program is second only to the University of Michigan-Ann Arbor.

There has been a 20% increase in degrees granted by the College since 2009, with 56 Ph.D. graduates in 2013-2014, 239 Master's, and 193 bachelor degrees. Although six-year graduation rates have increased slightly between 2012-2014, the four-year graduation rate of 15.3% is stable and considered by Dr. Fatouhi to be very good. He noted that the first undergraduate biomedical engineering cohort had a 100% graduation rate, with all 19 students graduating in four years, and commented that the four-year rate is a goal that can be accomplished with a lot of effort and time.

Retention rates within engineering have climbed slightly from 59% in Fall 2012 to 62% in Fall 2013, an increase the Dean said could be attributed partly to the improved delivery of bridge programs for at-risk students, and partly to improved undergraduate advising. In addition, some part-time faculty were replaced with lecturers, a move which seems to have improved learning outcome for the students. The data shows that retention from the second to the third year is about 70% in the College.

The College has increased its tenured and tenure-track faculty size by 15% since 2009. Unfortunately, the student-to-faculty ratio has increased by 44%, from 18:1 to 26:1. Dean Fatouhi noted that the ratio at U of M is 24:1. Since 2011, 18 faculty members and three department chairs have been hired, all of whom are multi-disciplinary in nature and who came in with research funding from agencies such as the National Science Foundation, National Institutes of Health, and federal and state departments of transportation. Nevertheless, more faculty are desperately needed in order to maintain the quality of education being given to students.

The College's strategic plan identified several areas of thrust in its multidisciplinary research program, including biomedical research, automotive safety, energy solutions, advanced manufacturing and materials, big data and business analytics, as well as the Transportation Research group and the Center for Automotive Research. The last two have been in the College for many years and are very successful in receiving research funding. For the past four years the College's research expenditure has been above \$20 million for each year, and for

2014 has increased by \$2 million. Industrial partnership is crucial for the College, and among its partners are the Lightweight and Modern Metals Manufacturing Institute (LM3I) in Corktown, a \$140 million research initiative from the federal and state governments that is looking into aluminum, titanium, and high strength steel technologies, as well as a partnership with the Oak Ridge National Lab and Michigan State University dealing with composite materials. Dr. Tapan Datta received funding from the Federal Highway administration of \$150,000, and the Department of Industrial Systems Engineering over the past five years received more than \$5 million from the Veterans Affairs Department to develop a health informatics system.

Dean Fahouti next talked about recent developments in the College. Several new degree programs have been initiated, such as the Master's program in Big Data and Business Analytics and the Nanoengineering certificate program, funded by the National Science Foundation and involving faculty from the Physics and Chemistry departments and the School of Medicine. It began Fall Term 2014 with an enrollment of 40 students. Two additional degree programs are being developed, Embedded Systems and Cybersecurity, the latter being supported by General Motors, and the College is receiving much positive feedback from industry for developing the programs.

In order to improve retention and graduation rates as well as recruitment of new students, the College started a Living and Learning Community. Residential scholarships of \$2,000 are available, and one floor in Ghafari Hall is dedicated to engineering students, where they have their own RAs, computer labs, and advising. The College has also approached industry to sponsor Capstone Design projects, and the annual Design Day is scheduled for May 8 to promote not only the capstone designs but also undergraduate research and innovation.

With a substantial gift of \$25 million from Mr. James Anderson, the College recently established the James and Patricia Anderson Engineering Ventures Institute, with the goal of translating Research and Development (R&E) into Innovation and Entrepreneurship (I&E). The Associate Dean is now involved with I&E with funding from iCorp, an innovation training grant for students. The College is also involved in the community with summer enrichment programs and various programs promoting STEM education and careers.

In terms of fundraising, the College has a target of \$50 million; they are currently at \$35 million with a couple of years left in the campaign, and are hoping to reach \$75 million. One of the goals for fundraising is the construction of an Engineering Student Innovation Center, where students involved in competition teams and capstone design projects would have space 365 days, 24 hours a day to work. Another project for which they are seeking industry support is the STEM Summer Academy for Future Engineers, where promising seniors would spend three weeks on campus in the summer, followed by three weeks of internship in industry.

In conclusion, Dean Fatouhi listed the challenges resulting in a 50% increase in enrollment as the need to invest in faculty and staff, need to ensure proper Graduate Assistant support for Ph.D. students, space requirements, and the need to update facilities. The floor was open to discussion.

Professor Beale noted that there was a fairly significant increase in research from 2008 to 2011, and then a decrease in 2012 and 2013. Dean Fatouhi replied that a \$5 million funding from the Department of Energy in 2009 spiked the numbers. The decline in 2012 and 2013 was a result of a decline in federal funding, partly due to sequestration, when it dropped from \$18 million to

\$13 million. To offset the problems with federal funding, the College is working with the Vice President for Research and the Tech Transfer Office to promote more industry collaboration.

Governor Thompson asked about the purpose of the Engineering Student Innovation Center, and whether any of the start-ups are sustainable beyond the University. Dean Fatouhi said that students are innovative when they build something from scratch and bring it to competition. The idea is to give them a garage-type space on the first floor where they can interact among themselves, with the second floor consisting of meeting and discussion rooms. Now that the Anderson Institute has been established, many former alumni are contacting the College offering to join forces with the students in developing their ideas. The students also have a chapter called the Collegiate Entrepreneurship Organization, with about 25 to 30 students who have ideas that could lead to innovation. Vice President Staebler added that the Blackstone Launchpad program, a campus-wide student entrepreneurship program, has launched about 137 businesses over the last four years, with about 25% of the students from the College of Engineering. He said about half of those new start-ups are actually generating revenue, hiring employees, and finding additional funding.

Governor Pollard congratulated Dean Fatouhi and the College of Engineering for the advances made in recent years. He said it was not long ago when the numbers were headed in the wrong direction, but now the College has advanced enough that it can help lead the University forward. He assured the Dean of his support and wished him the best.

Governor Trent asked the Dean to provide more information on the community partnerships such as DAPCEP, the C2 Pipeline, and the Michigan Council of Women in Technology. She asked how the College is engaging high school students and exposing them to the STEM career paths. Dean Fatouhi said that the College recently appointed a person in charge of community engagement who is devoted full-time to that activity. An enrichment program last summer brought more than 200 students to campus for three weeks where they attended various camps that included robotics, animation, gaming, and biomedical engineering. The Michigan Council of Women in Technology held their own camp on campus for the same purpose. The College is working with Cristo Rey High School in southwest Detroit, sending its Hispanic engineering students to provide tutoring, and also developing a dual enrollment program. The College plans to further develop the STEM Academy, bringing students to campus for three weeks and giving them short internships in industry. They would follow up by bringing them back to campus during their senior year so that the students would develop an affinity for Wayne State. Dean Fatouhi said the challenge is to keep good students, since other universities are always waiting in the wings to pick them up. Another aspect is to keep students interested in engineering by engaging them in building and in competitions.

In response to Governor Nicholson's question about job placement, Dean Fatouhi said that 90% of alumni stay in southeast Michigan, and 77% of students are placed within the first couple of months after graduation. The challenge for the College is to produce enough students for the jobs. More than 80 companies show up for the one-day career fair, and the College does not have enough space to bring more companies to the campus.

ESTABLISHMENT AND DISCONTINUANCE OF ACADEMIC PROGRAMS

In the interest of time, Governor Dunaskiss proposed that the Committee consider the five recommendations regarding academic programs in one motion, and asked whether Provost

Winters had any objections. The Provost replied that all the recommendations were straightforward, and all were reviewed and approved by the faculty and administration in the relevant school or college. There were no questions, and the motion was called.

ACTION — Upon motion by Governor Kelly and seconded by Governor Pollard, the Academic Affairs Committee recommended that the Board of Governors approve the five recommendations as presented. The motion carried.

The text of each individual recommendation is as follows:

Establishment of Multiple Majors in the Doctor of Nursing Practice Program in the College of Nursing

ACTION — Upon motion by Governor Kelly and seconded by Governor Pollard, the Academic Affairs Committee recommended that the Board of Governors approve the establishment of the following majors in the Doctor of Nursing Practice (DNP) program in the College of Nursing, effective Fall Semester 2015:

- Nurse Midwifery
- Neonatal Nurse Practitioner
- Women's Health Nurse Practitioner
- Adult-Gerontology Nurse Practitioner – Primary Care
- Adult-Gerontology Nurse Practitioner – Acute Care
- Advanced Public Health Nursing
- Psychiatric Mental Health Nurse Practitioner
- Pediatric Nurse Practitioner – Primary Care
- Pediatric Nurse Practitioner – Acute Care
- Family Nurse Practitioner

The motion carried.

Revision of Multiple Titles of Majors in the Master of Science in Nursing Programs in the College of Nursing

ACTION — Upon motion by Governor Kelly and seconded by Governor Pollard, the Academic Affairs Committee recommended that the Board of Governors approve the titling revisions of the following majors and concentrations in the Master of Science in Nursing program in the College of Nursing, effective Fall Semester 2015:

Current Title

Advanced Practice Nursing with Women,
Neonates and Children with a concentration in
Certified Nurse Midwifery

Advanced Practice Nursing with Women,
Neonates and Children with a concentration in
Neonatal Nurse Practitioner

Advanced Practice Nursing with Women,

Revised Major Title

Nurse Midwifery

Neonatal Nurse Practitioner

Women's Health Nurse Practitioner

Neonates and Children with a concentration in
Women's Health Nurse Practitioner

Adult Acute Care Nursing with a concentration in
Adult Critical Care Nursing

Adult Primary Care Nursing with a concentration
in Gerontological Nurse Practitioner

Community Health Nursing

Advanced Practice Nursing with Women,
Neonates and Children with a concentration in
Child Health

Advanced Practice Nursing with Women,
Neonates and Children with a concentration in
Child Health

The motion carried

Adult-Gerontology Nurse Practitioner
– Primary Care

Adult-Gerontology Nurse Practitioner
– Acute Care

Advanced Public Health Nursing

Pediatric Nurse Practitioner –
Primary Care

Pediatric Nurse Practitioner – Acute
Care

Discontinuance of the Bachelor of Arts in Education with a Major in Health

ACTION — Upon motion by Governor Kelly and seconded by Governor Pollard, the Academic Affairs Committee recommended that the Board of Governors approve the discontinuance of the Bachelor of Arts in Education with a major in Health, effective January 2015. The motion carried.

Discontinuance of the Bachelor of Arts in Education with a Major in Kinesiology

ACTION — Upon motion by Governor Kelly and seconded by Governor Pollard, the Academic Affairs Committee recommended that the Board of Governors approve the discontinuance of the Bachelor of Arts in Education with a major in Kinesiology, effective January 2015. The motion carried.

Discontinuance of Graduate Certificate in Analytical Toxicology in the Eugene Applebaum College of Pharmacy and Health Sciences

ACTION — Upon motion by Governor Kelly and seconded by Governor Pollard, the Academic Affairs Committee recommended that the Board of Governors approve the discontinuance of the Graduate Certificate in Analytical Toxicology, effective immediately. The motion carried.

UNDERGRADUATE STUDENT SUCCESS ANNUAL REPORT

Provost Winters announced that the annual report on undergraduate student success will be presented by Associate Provost Monica Brockmeyer. The slide presentation would show data on retention and graduation rates and academic success for first-time students (FTIACs) as well as a brief overview of transfer students.

The first-to-second year retention rate for FTIACs has averaged about 76% for the last five years. A comparison with selected peer institutions as well as the average for Michigan Public Universities (MPUs) shows that WSU's rate is only slightly lower than the comparison groups.

Six-year graduation rates are the standard for national reporting, and WSU's graduation rate in 2014, for students who entered in 2008, was 34%, an increase of 8 percentage points over three years. Again, comparing WSU's six-year graduation rates to those of its urban peer institutions and the MPUs, Wayne State falls below its peers, which hover around 50%. Therefore, WSU has set a goal to increase that six-year graduation rate to 50% by 2020.

The next chart examined several cohorts of students between Fall 2005 to Fall 2013 and their retention rates into the third, fourth, fifth and sixth years. The rate into the third year for the newer groups improved considerably to over 65%, the highest it has been in 17 years. Dr. Brockmeyer noted that these are positive leading indicators that provide hope for a rise in graduation rates in upcoming years.

A comparison of four-, five-, and six-year graduation rates for the full-time FTIAC cohorts from 2003-2010 shows a slight increase in the four-year graduation rate. Dr. Brockmeyer commented that while some students take longer to graduate, they nevertheless do graduate after six years, or sometimes later. This point is illustrated in the next slide depicting the retention and graduation rates for the 2004 cohort over a nine-year period. While 10% graduated in four years, students continued to graduate after the sixth year, well into the ninth year.

Data compiled by the National Student Clearinghouse helped follow up on the Fall 2008 FTIAC cohort over a six-year period, but this time it gave the additional information of what happened to them after they left WSU. After six years, 34% graduated from WSU, 5% from another four-year institution, and 4% from a two-year community college. About 11% are continuing at WSU after six years, and 17% at another institution. Therefore, of those students who started at WSU in the Fall of 2008, close to 70% earned a degree or are continuing their studies towards a degree either at WSU or elsewhere.

Dr. Brockmeyer noted that an institution must understand that retaining a student is not enough. To graduate, a student must learn, thrive, and engage with the institution. A more detailed analysis was done, and the next chart examined the 2008 cohort during the first year and how their performance laid the foundation for future success. Roughly, a third of the students fell into three groups: those who achieved grade point averages above 3.0, those between 2.0 and 3.0, or those below a 2.0. Students who finished above a 3.0 had a 63% chance of graduating; the middle group in the B and C range had a 29%; and those below a 2.0 only a 3.5% chance. The conclusion was that retention rates into the second year are not enough if not matched with strong academic success in the first year. Dr. Brockmeyer said this is an important starting conversation for advisors and the administration in terms of helping students from before the first day. The message is to start on track, stay on track, and set their target for academic achievement at 3.0 or higher.

The University has been working on that goal, and the next chart showed some progress in that area. The data examined the cohorts starting 2008 through 2013 and how they finished at the end of the first year. The percentage of students who finished above 3.0 increased from 37% to 45%, while those who finished below 2.0 decreased from 31% to 25%. Again, this is a positive academic indicator for future graduation rates. Dr. Brockmeyer said the administration plans to

work more with the middle group of students to help them finish the first year above a 3.0, and future Student Affairs Committee meetings will highlight some of the initiatives.

The next set of data broke down the FTIACs by race/ethnicity and gender and examined their one-year retention and six-year graduation rates between 2007 and 2013. Retention rates for African Americans, non-resident, and female students increased slightly in 2013, while rates for Hispanic, white, and male students decreased. The six-year graduation rate shows continued increase for most groups. Dr. Brockmeyer noted the retention and graduation rates for the African American, Hispanic and other groups are lower than for the Asian and white students, and the administration must focus on narrowing and closing that gap.

The study shifted from FTIACs to transfer students, who are roughly one-third of the student population. It is harder to analyze retention and graduation rates for transfer students, since their situations are more variable than those of FTIACs. One student may come in with 12 credits and be uncertain about his direction; another student may come in with an associate degree and have a very clear path laid out. The chart analyzed the retention of recent cohorts of transfer students into the second, third, and fourth years. Retention rates into the second year after transfer ranged between 60 to 80%, comparing quite reasonably with the FTIAC rates. Lower retention rates into the third and fourth year can be attributed to graduation.

Dr. Brockmeyer also analyzed the success of transfer students from Fall 2013 during their first year and compared them to freshmen FTIACs. First-year transfer students attempted and earned slightly fewer credits than the FTIAC students, perhaps reflecting the fact that transfer students are more likely to have work obligations. However, transfer students actually completed a higher percentage of credits, 85.6%, and earned an average GPA in their first year that was identical to that of the FTIACs. Looking at the transfer students' entire career at WSU, on average they attempted 65.4 credit hours at WSU and completed 53, with a success rate of 84% and a GPA of 3.0. This shows that they have worked out the issues of how to go to college and understand what it means to be successful in college.

Data for the graduation rates for four, five, and six years for transfer students showed that students who transferred to WSU as freshmen still graduated within 10 years; those who transferred in with more credits had a very high graduation rate approaching 70%. This denotes a good success rate for transfer students in terms of graduation, suggesting that they represent about half of the students crossing the stage at commencement.

Dr. Brockmeyer stated that the data presented is evidence that transition into college is very complicated, often presenting a confusing array of signals to many students. Over the next few meetings, the administration will describe several initiatives to help guide students toward graduation.


In summary, first- to second-year retention rates are competitive with WSU's peers, and there are increases in retention into the third, fourth, and fifth years, and in four-, five-, and six-year graduation rates as well as in credit attainment and academic outcomes. Graduation rates are still too low, and gaps in outcomes by race/ethnicity require continued investment and attention. There will be a continued and improved focus on educational attainment during the first year, not just retention. Several initiatives will be established to help meet the goal of a 50% graduation rate by 2020, with closed achievement gaps. In essence, the University must move beyond individual programs to an institutional culture that helps students progress forward towards graduation.

Governor Trent asked whether there is a specific goal for graduation rates of minority groups that currently have a very low six-year rate. Dr. Brockmeyer replied that numerical targets have not been set, although in her experience it would be a good motivational stimulus for the campus to do so. Currently, graduation rates for African American and Hispanic students do not compare favorably to those of WSU's peer institutions. Some progress has been made but the gaps between graduation rates for white students and African American students show there is a long way to go. However, many institutions have made measurable and meaningful progress over a period of about a decade, and it would not be impossible for WSU to do so as well. President Wilson added that although the exact target has not been set, he would be very disappointed if by 2020 the success rate for six-year graduation for African American students was any different than for the general student body.

ADJOURNMENT

There being no further business, the meeting adjourned at 12:16 p.m.

Respectfully submitted,



Julie H. Miller
Secretary to the Board of Governors

DRAFT