**BOARD OF GOVERNORS**

## ACADEMIC AFFAIRS COMMITTEE

## December 2, 2016

## Minutes

The meeting was called to order at 10:35 by Governor Dunaskiss in Room BC at the McGregor Memorial Conference Center. Secretary Miller called the roll. A quorum was present.

**Committee Members Present:** Governors Dunaskiss, Kelly, Pollard, and Trent; renée hoogland, Faculty Representative and Jennifer Hart, Alternate Representative; Abdul-Rahman Suleiman, Student Representative

**Committee Members Absent:** Governor Massaron

**Also Present:** Governors Nicholson, O'Brien, and Thompson, and President Wilson; Provost Whitfield, Vice Presidents Burns, Decatur, Hefner, Lanier, Lessem, Staebler, and Wright; and Secretary Miller

### APPROVAL OF MINUTES, September 23, 2016

**ACTION:** Upon motion made by Governor Trent and supported by Governor Pollard, the Minutes of the September 23, 2016 meeting of the Academic Affairs Committee were approved as submitted. The motion carried.

### MERGER OF THE DEPARTMENT OF BIOCHEMNISTRY AND MOLECULAR BIOLOGY WITH IMMUNOLOGY & MICROBIOLOGY

Provost Whitfield provided an overview of the proposal for the merger of the Department of Biochemistry and Molecular Biology with Immunology and Microbiology. The rationale was to allow departments to look like national models of how different areas co-exist and create new science, knowledge and technology. The proposal was discussed with faculty and the executive committee in the School of Medicine, per their guidelines. Vice President Hefner added that different constituent groups met for a departmental perspective and endorsed the proposed merger unanimously, with some concerns about next steps. Governor Dunaskiss asked if there were assurances so that the process would be held in its integrity in the future. Vice President Hefner noted that issues centered on process, and they were learning from the engagement now of the new Provost. Provost Whitfield noted that the normal academic review time period was 8 years but given that it was a new merger, there would be a soft academic review in 3 years.

Professor Romano noted that the role of the Academic Senate was to ensure that the voice of the faculty was heard, that the administration was committed to shared governance and faculty consultation were important parts of the Board of Governor's statute that formed the Academic Senate. The proposed merger was in the works for 4 months, but wasn't decided until the day before Thanksgiving. He felt there should have been discussion between the departmental faculty and the executive committee, and now a number of details will have to be worked out after the fact. He asked what would happen to the graduate programs, the office staff, the lab space, the PhD program and the Master's program in Biochemistry, and hopes that the Board will take seriously the requirement of the administration to talk to the faculty about major decisions.

Governor Kelly noted that they were fortunate that faculty representatives asked rather than demanded for the process to be followed as that might make it difficult to decide on proposals in the future. Abdul-Rahman Suleiman, Student Representative, supported Professor Romano's comments. Governor Trent noted that President Wilson and the Provost had expressed regret about the process and asked Provost Whitfield to address faculty concerns after action was taken by the Board.

President Wilson noted that he did not disagree with Professor Romano's comments but advised that this process was new to Dr. Sobel. He added that Dr. Sobel discussed the approval process with the General Counsel, but did not have a clear understanding of the joint governance procedures. Once advised, he tried to do what he could and as quickly as he could to review the recommendation with the faculty. President Wilson added that in terms of merging departments, once the approval to move forward is granted, the details will be worked out between the administration and in this case the Dean's office and the faculty, including the naming of the department etc.

> **ACTION:** Upon motion made by Governor Trent and supported by Governor Pollard, the Academic Affairs Committee recommended that the Board of Governors approve the proposal to merge of the Department of Biochemistry and Molecular Biology with Immunology and Microbiology. The motion carried.

## ESTABLISHMENT OF MASTER OF SCIENCE PROGRAM IN DATA SCIENCE AND BUSINESS ANALYTICS

Provost Whitfield provided an overview of the proposal for the establishment of a Master of Science Program in Data Science and Business Analytics and noted that it was a Master of Science which crossed to different colleges, the College of Engineering, as well as the Mike Illitch School of Business. It provides a Master's degree in one of the fastest growing areas in in terms of data science. This is not just about training people to be number crunchers, but to be interpreters, and to be able to provide visualization, so that data can ultimately be translated and used by others.

A representative from the College of Engineering noted excitement about the program, brought together with the collaboration across multiple colleges by the Provost, including systems engineering, computer science, and the business school, and had been nearly three years in

development. There was tremendous talent and they formed the big data and business analytics groups, had taken the lead in Michigan to organize events for the business community and organized 3 social events that were attended by hundreds of companies. An upcoming event is scheduled for March 2017 and the parties are very excited about developing and drawing out the program starting fall 2017.

> **ACTION:** Upon motion made by Governor Trent and supported by Professor hoogland, the Academic Affairs Committee recommended that the Board of Governors approve the proposal for the establishment of a Master of Science Program in Data Science and Business Analytics. The motion carried.

**PRESENTATION: COLLEGE OF ENGINEERING**

Dean Fotouhi of the College of Engineering presented an update on the College. In terms of fall 2016 numbers, the College has 3,798 students with 2,200 undergraduates and 1,400 to 1,500 graduate students. By gender, 21% of the undergraduates were female, 24% of master students were female, and PhD, 26%. In terms of ethnicity, 11% of undergraduates were minorities, the graduate master program 2%, and the PhD, 2%. The College is performing better than the national in terms of minority enrollment. In terms of applications submitted this year, there were 7,500 with 3,000 undergraduate, almost 4,000 graduate masters, and about 600 PhD. In terms of applications received of students admitted 56% were undergraduates, of which 19% enrolled. At the graduate level, 48% were admitted and 11% enrolled. And at the PhD level, 9% were admitted and 5% enrolled.

Undergraduate, graduate, master, and PhD programs are were the second largest in the State of Michigan. Retention rates are strong. Second year freshman retention for fall 2015 is 84%, and for third year retention it is 70-71%. Fourth year retention was around 59-60%. Since 2011, undergraduate degrees awarded increased by 4% and graduate by 61%. In fall 2015, 244 undergraduates were awarded degrees, of which 15% were minorities. The number of tenure and tenure-track faculty in the college during this period stayed steady. There has been support from the Provost, in hiring additional lecturers to help with the teaching mission of the college.

In terms of ethnicity and gender of the faculty, 18% of the faculty are female. Thirty percent of hires since 2011 were female, hired by departments who hired them were biomedical engineering, chemical engineering, industrial engineering and engineering technology. In terms of ethnicity, 52% of faculty were Asian, 42% white, and 5% African American.

Research proposal submissions have increased. The number of grants awarded saw a $1 million dollar increase in funding. In terms of new dollars in 2015-16, half of funding came from federal sources. The College would like to grow industry sponsorship support for research and is working with the Office of Vice President for Research in terms of signing of agreements with industry for doing research.

Annual research expenditures stayed above $20 million a year, a number reported to the national science foundation, annually. The faculty hiring focus for the next few years will be in cyber security and data privacy, especially healthcare data privacy, connectivity and data science with

the degree program recently approved in that area, sustainability and environmental engineering, bio and systems engineering, and materials, advance, smart materials.

In 2012, as a part of the strategic plan, the College identified 5 high impact practices as areas of concentration, including hands on experience in student engagement, working on competitions such as Eco Card 3, Formula Hybrid, or Formula S.A.E. teams, and sending students overseas and accepting overseas students for summer research here, in countries like Spain, Korea, Germany, France, and Austria.

The College secured internships and/or co-op opportunities for students, with more than 80% of graduates gaining experience through at least one internship before graduation. Community engagement, including summer and weekend programs, impacted over 3,000 k-12 students in STEM areas each year. The Dual Enrollment program the previous year offered one of the College of Engineering courses and this year at Waterford Mott High School, the College offered an Engineering course that could be transferred to Wayne State. Dr. Leda Araba, Mechanical Engineering, created a mobile energy lab where he and graduate students would go to various high schools and present the hands-on energy mobile lab to students to get them excited about solar and alternate type energy technologies.

Emphases in the coming fall will be in several areas, including data science and business analytics, Cyber Security, partnering with Medic Network and offering compact weekend, and the possibility of half semester courses to accommodate industries interested in learning about cyber security. The college is working Ahmad Ezzeddine to offer these courses at ATEC, as well as on main campus. Connections are also being made with Macomb Community College, and industries near the ATEC building, including General Dynamics, the Army Tank Command and Chrysler, to get some of their employees interested in these programs.

In terms of recruiting minority students, college staff are actively involved with the DAPCEP, Detroit Area Pre-College Engineering Program, which has students coming on the weekend to enhance their knowledge about Engineering, English, and Finance. The Dual Enrollment programs were another area of community outreach with the mobile energy labs, summer camps that bring in robotics, animation, games, biomedical research with students from K-12 coming to those programs and over 300-400 students enrolled with a waiting list for students who are interested getting into the summer camps.

In terms of the staffing and faculty, faculty to student ratio and student to faculty ratio has been increasing and could impact admissions. Staff needs include proficiency to manage teaching labs, IT staff, machining and electronic shop area expertise. The college has about 300 PhD students, with 70 graduate teaching assistants and with increases in enrollment, that number should be increased.

Governor Trent asked if there were any strategies in place to increase the number of minority faculty.

Dean Fotouhi noted that the search committees needed to be diverse with minority and female faculty member representation. Nationally, student PhD's were 4% African American. The college has been working with the Provost's office on a long term plan to follow individuals, who might be former students, in their careers and then encourage them to come back. In terms of women,

the college had about 20% female graduate/undergraduates. In certain disciplines, the college has been doing well, including Civil Engineering, Biomedical Engineering and Industrial Engineering. In Chemical Engineering, and Biomedical Engineering, there were 5 faculty hires over the past several years, 3 of which were women. The departments having a hard time finding female faculty were Mechanical Engineering, Computer Science, and Electrical and Computer Engineering.

Governor Thompson asked if qualified students from the community engagement programs were being admitted to Wayne State University and whether that provides an opportunity to enhance the pool.

Dean Fotouhi advised that they had recruited some students from the DAPCEP program and that Ford Motor Company initially funded about $35,000, eventually giving from a $250,000 endowment for DAPCEP students who were coming to Wayne State. Exposure to STEM, regardless if those students came to engineering or to any other science or technology field, was good for the University and for the city.

Professor Romano asked about the statistic required by the state and federal government as a secure graduation rate. Dean Fotouhi stated the current six-year graduation for the College of Engineering was 45.7%, up from 34.1% in 2006. The four-year graduation rate is one of the highest in the University, at 24%. The achievement was made possible with good faculty. The college has worked with department chairs to ensure that course offerings are properly laid out. Professor Romano asked about the number of endowed Professorships, and of the $42 million, was any of that pledge for endowed Professorships. Dean Fotouhi noted that there was one endowed professorship. The $25 million Anderson gift provided for endowed faculty, but has not yet been executed.

Governor Pollard noted that he was impressed with the program but wanted to see more with recruiting faculty.

President Wilson noted that the endowment issue was a cultural change at the University and that for the size of the institution, the endowment should be at least twice, if not three times its current size and there was hard work toward that.

Governor Kelly asked Vice President Burns if the Anderson Endowment was for faculty or for students, when was the gift made and how long would it be before endowed faculty positions were put in place? Vice President Burns noted that a portion of the $25-million-dollar gift was to create endowed faculty lines and that the gift was made two years ago. Dean Fotuohi noted that there was an endowed faculty line at the beginning of the campaign, in 2014, when the institute was established and there was hope for more within the next 3 years. Dean Fotouhi noted that Federal funding had been a challenge and a number of funded faculty were lost due to retirement. Replacing the retired faculty with a younger faculty would take time but all the hires since 2011, 2012, and 2013, had already been funded from National Institute of Health, National Science Foundation, and other private foundations. The Dean concluded his presentation.

**ADJOURNMENT**

There being no further business, the meeting adjourned at 11:29 a.m.

Respectfully submitted,

Julie H. Miller
Secretary to the Board of Governors