# The University Senate Of Michigan Technological University 

Minutes of Meeting 359
7 November 2001
Synopsis: The Senate
(1) heard that Provost Wray has withdrawn the request to eliminate the men's and women's Nordic ski teams.
(2) heard that President Tompkins has appointed Kelly Strong to a two-year term on the MTEPS board.
(3) heard that the academic faculty elected Tom Merz to the Academic Tenure Committee.
(4) heard that President Tompkins appointed Carl Vilmann to the Athletic Council.
(5) discussed six budget-cutting proposals.

## 1. CALL TO ORDER AND ROLL CALL

President Bob Keen called University Senate Meeting 359 to order at 5:32 p.m. on Wednesday, 7 November 2001, in Room B45 EERC.

Secretary Craig Waddell called roll. Absent were representatives from Electrical and Computer Engineering, Library, Keweenaw Research Center, Research and Graduate School/University Relations/Administrative Offices, and Student Affairs and Educational Opportunity. Liaisons in attendance were Dennis Taylor (USG) and Becky Christianson (Staff Council).

## 2. RECOGNITION OF VISITORS

Visitors included David Nelson (Biomedical Engineering), Marcia Goodrich (Tech Topics), Provost Wray, Bernie Carr (School of Technology), Gary Willis (School of Technology), Pat Joyce (School of Business and Economics), Neil Hutzler (College of Engineering), Bob Warrington (College of Engineering), Tim Collins (School of Technology), and the following MTU students: Ryan Wesley, Jayson Ripke, Dan Adler, Kurt Reichenbach, Dan Collins, Wayne Johnson, Rachel Miller, Trent Weatherwax, Dan Siderius, Julie Varichak, Skye Malette, Kari O'Dell, Kevin Sands, Chris Zellner, Shalini Chandrahasa, Lisa Graham, Christian Woods, and Henry Walqui.

## 3. APPROVAL OF AGENDA

Keen presented the agenda and asked for amendments. Keen said that the Senate Executive Committee recommended that all items on the agenda be discussed at this meeting and voted on in one week. Item 7.D--Proposal 9-02, Proposed Elimination of the Men's and Women's Nordic Ski Programs--was removed from the agenda since Proposal $9-02$ has been withdrawn. The agenda was accepted as distributed. [Appendix A. NOTE: Only official senate and library archival copies of the minutes will contain a full complement of appendices.]

## 4. APPROVAL OF MINUTES FROM MEETING 356

Keen presented the minutes from meeting 358 and asked for corrections or amendments. Several minor corrections were noted. There were no further corrections and no objections to the minutes as corrected. The minutes were declared approved as corrected.

## 5. PRESIDENT'S REPORT

Keen said that he had sent to Provost Wray the sense of the senate approved at senate meeting 358
["Although the Senate appreciates the Provost's request that the Senate approve the membership of the committee to review the proposed merger of the School of Technology and the College of Engineering, the Senate respectfully chooses to review the proposed merger through its own committee structure and proposal process. We further wish to express our concern that the timetable provided for the review and recommendation on this issue is inadequate to address the serious repercussions of such a merger."] [Appendix B]

Keen received a memo from Provost Wray indicating that the proposal to eliminate the men's and women's Nordic ski teams has been withdrawn. [Appendix C]

Keen said that President Tompkins has selected Senator Kelly Strong as the faculty representative to the Michigan Tech Enterprise Smart Zone, replacing Larry Davis.

Keen said that Tom Merz has been elected as the faculty representative on the Academic Tenure Committee. President Tompkins will appoint one additional member.

From the senate's slate of nominees, President Tompkins has selected Senator Carl Vilmann as the senate's Athletic Council representative.

Keen reminded the senate that Barry Solomon, the university's conflict of interest coordinator, has asked to visit departments to explain new developments in the university's conflict of interest policies.

Since the last senate meeting, Keen has met twice with the provost to discuss the separation policy, which has been or will soon be submitted to the university counsel for legal review. The conflict of interest policy will also be reviewed by the university counsel.

The provost has appointed a committee to review the proposed merger of the College of Engineering and the School of Technology.

Senate officers met with the provost on 6 November to discuss the incendiary devices that had been discovered near the Noblet Forestry Building and the U.S. Forest Engineering Laboratory. The provost said that as a result of this experience, the university's emergency communication procedures will be improved. Senate officers also discussed with the provost the agenda for senate meeting 359.

The Benefits Liaison Group met on 7 November to discuss the simplification of the TechSelect form.
Keen announced that the senate will meet on 14 November from 5:30-7:30 p.m. in EERC B45.

## 6. UNFINISHED BUSINESS

Keen said that for items 6.A and 6.B, he would first ask for or refer to reports from the Senate Curricular Policy Committee, the Senate Administrative Policy Committee, and the Senate Finance Committee. He would then allow time for comments from deans or other proposal initiators and from students. Finally, time permitting, he would allow time for additional comments or questions from senators or visitors. There will be no motion on the floor unless senators wish to introduce a simple motion to discuss these items. There were no objections to this procedure.

## A. Proposal 3-02, Elimination of the AAS Degree Program in Forest Technology [See minutes, page 9315, for a copy of this proposal and Appendix D.]

Senator Dieter Adolphs, representing the Senate Curricular Policy Committee, said that he would respond to any questions about the committee's 6 November memo, which responds to Proposal 3-02.

Keen said that the committee's memo recommends that the university further strengthen cooperation between the School of Technology and the School of Forestry with another program and strengthen efforts to improve the visibility of School of Technology programs.

Adolphs said that the only concern the committee had was that there are currently few students in the AAS program, but that if the visibility of the program were improved, this problem could be solved, and the program could become cost effective (although the Curricular Policy Committee is not primarily concerned with cost effectiveness). The committee sees no reason why this program should be eliminated.

Senator Lee Oberto said that the Senate Administrative Policy committee did not review this proposal.
Senator Jim Pickens, representing the Senate Finance Committee, referred senators to the committee's 6 November report. He said that although the AAS degree in Forest Technology has had low enrollments in recent years, in the past, enrollments have been significantly higher, with approximately 25 majors in 1996. Pickens said that this AAS degree is probably the most concentrated degree program at Michigan Tech, with just two faculty delivering 45 of the 66 credits required. The program accepts students who don't have the academic background to succeed in some other programs at Michigan Tech, but the program mentors these students to improve their study skills. Hence, the program has had an excellent record of its students transferring to the School of Forestry. The program also enjoys extremely strong support in the regional forestry industry: graduates are highly recruited and do well in the workforce.

Pickens said that the cost savings resulting from the elimination of this program include (1) salary and benefits for a faculty position eliminated, (2) space released due to the elimination of the program, and (3) students in the program take 21 credits outside the major, and outside faculty won't have to teach these students anymore.

Pickens said that revenue reductions resulting from the elimination of this program include (1) loss of tuition and fees of ten students (assuming that students in this program will not transfer to other majors at Michigan Tech), and (2) the one tenured faculty member in this program would continue to serve at Michigan Tech.

Pickens said that unlike the Senate Finance Committee's analysis, the School of Technology's financial analysis failed to include fringe-benefits costs ( 39.9 percent of salary). The School of Technology's analysis also failed to include the value of space released. The School of Technology's analysis also included a $\$ 20,000$ savings for something completely unrelated to the elimination of this program.

Pickens said that this proposal would not yield any cost savings in the 2001-2002 academic year because nothing would change during this year. During 2002-2003, the proposal would yield savings due to space reduction (eliminating the need for new construction [\$13,158] and maintenance [\$685]); however, the loss in tuition revenue would be $\$ 15,744$. Hence, during 2001-2002, Michigan Tech would suffer a net loss as a result of the elimination of this program. Pickens said that the Senate Finance Committee looked not only at the financial impact on the program under consideration but also at the financial impact on the entire university.

During 2003-2004, the AAS degree in Forest Technology would be completely eliminated, resulting in one non-tenured, tenure-track faculty member's contract not being renewed with a savings of $\$ 55,960$ (salary plus benefits). Additional savings would include elimination of new building space construction and maintenance. After accounting for lost tuition-and-fees revenue, savings in 2003-2004 would be about $\$ 31,000$. In subsequent years, annual savings would be about $\$ 18,000$.

School of Technology Dean Tim Collins said that he believes that the materials submitted by the various senate committees are accurate. Michigan Tech has had a forest technology program since the 1960s. It serves a different group of students than most other programs at Michigan Tech, such as workers who were displaced when the White Pine Copper Company closed. The School of Technology would like to see this program grow.

Senator Dana Johnson said that she was concerned that some of the proposed cost reductions would simply shift costs from one school or department to another.

Senator Don Beck asked Pickens if the projected tuition-revenue losses included financial aid.
Pickens said that they did.
Senator Christ Ftaclas asked what the competition for the AAS in Forest Technology was.
Collins said that this was the only such program in Michigan.
Ftaclas said that it looked like a good program and asked why there wasn't a plan to grow the enrollment rather than to eliminate the program. Ftaclas said that the university should not operate on the discredited financial model that assumes that every group within a company should be forced to make a profit. When forced to operate under this model, the various groups within a company simply determine ways to charge each other, thus shifting costs but not necessarily ensuring the overall profitability of the company. Instead of trying to increase external revenues, we're shifting costs internally.

Keen said that the senate would debate and vote on five proposals at its next meeting [14 November]. Hence, he asked that the senate limit debate at this 14 November meeting to one comment per individual.

Professor Pat Joyce asked if the subtraction of financial aid was a canard; that is, would this aid simply be awarded to other students? He also asked if the university awards all financial aid that is available, or if there is some financial aid that is available but not awarded.

Senator John Williams asked if the AAS in Forest Technology makes use of the Ford Forestry Center.
Professor Bernard Carr of the School of Technology said that the program formerly used the Forestry Center but has since moved on campus. They subsequently used the center in the fall, but had to discontinue this practice when they were asked to pay rent for using the center.

Strong asked how many of the AAS students go on to pursue a four-year degree on campus.
Carr said that over the past 10 years, about 25-30 percent of AAS students have continued with four-year degrees at Michigan Tech.

Adolphs said that there is an arrangement with the School of Forestry that allows students to continue at Michigan Tech for another 2.5 years after competing their AAS degree and earn a bachelor's degree in forestry.

Carr said that some AAS graduates also return to pursue bachelors' degrees after spending a few years in the workforce.

Barna said that a lot of the proposals are expected to achieve budget reductions in this year. He asked what the implications would be for those proposals that do not realize savings during this year.

## B. Proposal 4-02, Elimination of the Option in Mineral Process Engineering [See minutes, page 9321, for a copy of this proposal and Appendix E.]

Keen said that the Senate's Curricular Policy Committee had presented in its 6 November report an alternative proposal: relocating the concentration in mineral process engineering to the Department of Chemical Engineering.

Adolphs, representing the Curricular Policy Committee, said that the proposal to move two faculty members to the Department of Chemical Engineering seems appropriate. The proposal also includes significant cost reductions. Many administrators, faculty members, and students interviewed by the committee support the proposal. Faculty interviewed by the committee support elimination of all of the courses nominated for elimination except one, which they offered to teach as an overload. With a little more effort, this proposal could be modified to create a new degree in the Department of Chemical Engineering with all of the costs savings included in the original proposal.

Referring to the attachment to the Curricular Policy Committee's 6 November report, Adolphs said that Michigan Tech has only 31 bachelors' degrees--the lowest number of all Michigan public universities (compared to 222 at the University of Michigan and 155 at Western Michigan). He said that it would be in Michigan Tech long-term interests to increase and diversify its degree offerings.

Keen said that the Curricular Policy Committee's recommendation included in this report should be assigned a proposal number in case the senate votes against the adoption of Proposal 4-02. This will be done at the next senate meeting.

Oberto, representing the Senate's Administrative Policy Committee, referred the senate to the first page of the Administrative Policy Committee's 6 November report. He said that the APC was concerned about whether or not students and funding agencies would be able to identify the uniqueness of the program after the merger.

Barna, representing the Senate Finance Committee, said that the financial analysis he was about to present would not be valid if the senate accepted the recommendation just presented by the Curricular Policy Committee. He said that the point of Proposal 4-02 is to eliminate the concentration in mineral process engineering. He said that the Michigan Tech catalog refers to this as an concentration, not an option, and that eliminating a degree program is probably different than eliminating an option. The proposal calls for the transfer of two faculty; other groups are considering whether this should be linked to the elimination of the program. The proposal also calls for shifting a research engineer to soft money; Barna said that one does not have to eliminate a program in order to shift a research engineer to soft money.

Barna said that by shifting two faculty members to the Department of Chemical Engineering, the College of Engineering proposes to eliminate two current, entry-level openings in chemical engineering. The committee assumed that there would be no financial changes involved in the laboratory space transfers and SS\&E transfers. Six the students currently majoring in mineral process engineering would be allowed to complete their degree programs.

Barna presented a spreadsheet indicating that as a result of this proposal, there would be no direct savings in the first year. The two faculty would transfer to chemical engineering, but they would not teach any chemical engineering courses; instead, they would fulfill their obligations to those mineral process engineering students who were completing their degree requirements. Hidden costs include administrative and faculty time associated with renegotiating charters, curricula, etc.

Barna said that savings would begin in the second year [\$219,000], including the savings of two start-up packages (for new faculty) of $\$ 75,000$ each. By the fourth year, savings would level off at about $\$ 165,000$ per year. Hence, there are savings associated with this proposal, but those savings would be eliminated if the degree option is preserved as recommended by the Senate Curricular Policy Committee. That is, if the two transferred faculty do not eventually teach chemical engineering courses rather than serve a reconstructed concentration in mineral process engineering, there would be no long-term cost reduction.

Dean of Engineering Bob Warrington said that there are problems with maintaining an ABET-accredited degree program. Under the old ABET criteria, a degree in mineral process engineering had to have a minimum of three faculty lines for accreditation. Currently, the program has only two filled lines and one opening. The new ABET criteria indicate that a college or university has to have sufficient faculty to offer a degree program. There is no minimum number, however, a program cannot be dependent on just one faculty member. It is difficult and expensive to develop new, ABET-accredited degree programs. However, concentrations and minors are much easier since they are not under the same guidelines.

Warrington said that in preparing its financial analysis of the proposed elimination of the concentration in mineral process engineering, the College of Engineering was asked to consider only recurring monies, not one-time monies such as start-up packages, and they were told that not all of the savings had to be accomplished in the first year.

Keen asked if there were any comments from students.
Ryan Wesley said that he represented the undergraduate students in the Concentration in Mineral Process Engineering. He said that students in this concentration support moving the degree to the Department of Chemical Engineering. However, they are concerned that if the program is temporarily discontinued in the transition, it may never recover. Vital lab space and the $\$ 900,000$ endowment for scholarships for undergraduate students in this program could be lost.

Wesley referred the senate to a 18 September memo from Anita Quinn, which he said indicates that the total amount of external research funding awarded to the Department of Mining and Materials Processing Engineering over the past year was over $\$ 3$ million, 10 percent of the external research funding awarded to Michigan Tech during that period. Wesley said that if the Concentration in Mineral Process Engineering is eliminated, much of that funding will disappear, because the graduate program will lose the undergraduate base upon which it draws. He said that they support the recommendation of the Senate's Curricular Policy Committee that a new degree in material process engineering be created within the Department of Chemical Engineering.

Associate Dean of Engineering Neil Hutzler said that there were some problems with the assumptions made by the Senate Finance Committee. He said that in the research funding described in Quinn's 18 September memo, one research project accounts for about half of the $\$ 3$ million awarded to the Department of Mining and Materials Processing Engineering and that there was currently an effort to move that project to another university. He said that the proposal to eliminate the department and the proposal to eliminate the Concentration in Mineral Process Engineering are linked. If this program is not eliminated, the College of Engineering will have to make cuts elsewhere, and no cuts will be popular. Moving a degree program from one department to another won't save money. The faculty transferred to the Department of Chemical Engineering should eventually be expected to teach chemical engineering courses. Some alumni will and some alumni will not support such a change.

Senator Bill Gregg said that the Senate Curricular Policy Committee recommends that the Concentration in Mineral Process Engineering be integrated with particulate processing engineering, in which there is great interest, especially since the terrorist attacks of September 11 and the ongoing anthrax threats. This would combine the two current faculty in mineral processing with two current faculty in particulate processing. He said that the university should not eliminate one program and wait for another to evolve; we should begin a new program now.

Warrington said that the Department of Chemical Engineering is understaffed with a student-to-faculty ratio of over 30-to-1. The department could afford to begin a new minor or concentration at this point, but not a new degree program.

## 7. NEW BUSINESS

Keen said that given time constraints, the Senate Executive Committee had decided that for each of the three proposals included under new business, the senate would circulate simultaneously an amendment to insert the word "not" into "the senate recommends the implementation" [i.e., "The Senate does not recommend the implementation. . . ." vs. "The Senate recommends the implementation. . . ."]. This will allow the senate to avoid introducing an amendment, and the consequent delay required by Robert's Rules of Order, at the next senate meeting. He encouraged senators to consult with their constituents on these proposals.

## A. Proposal 6-02, Recommendation on the Proposed Elimination of the Department of Biomedical Engineering and the Merger of the Biomedical Engineering Degree Program with the Department of Chemical Engineering [Appendix F] <br> Adolphs said that the Senate Curricular Policy Committee had no report on this proposal.

Oberto, representing the Senate Administrative Policy Committee, said that the committee met on several occasions with Professor David Nelson of the Center for Biomedical Engineering and Associate Dean of

Engineering Mark Plichta. They tried to assess the impacts of the recommended merger on such things as ABET accreditation and faculty research. The committee learned from Nelson that the biomedical engineering faculty and staff do a lot of work recruiting students during the summers and have been successful in these efforts. There are enough faculty in biomedical engineering for ABET accreditation; however, several faculty lines are currently open.

Oberto said that the committee could not find any accredited biomedical engineering programs that were hosted within chemical engineering departments in the United States. He said that they may have found such programs if they had searched using other descriptors, such as "bioengineering" rather than "biomedical engineering." He said that today, he searched Yale's web site and found a program of biomedical engineering, which is the synthesis of several traditional departments. Nevertheless, it is not traditional to find biomedical engineering in chemical engineering departments, which could cause problems for such an arrangement at Michigan Tech in terms of identifying faculty and connecting with traditional funding agencies.

Oberto said that the biomedical engineering program attracts high-quality and diverse students to Michigan Tech. Sixty percent of the students in the program are female; 15 percent of students graduating from the program go on to medical school; and 40 percent go on to graduate school. The program has about 160 majors, and MS and Ph.D. programs are in proposal form. These graduate programs could bring an additional 30-40 students to Michigan Tech.

Oberto said that if Tech is willing to be creative and combine resources across departments--as has been done at Yale--biomedical engineering could prosper at Michigan Tech.

Keen thanked Oberto and called for the report of the Senate Finance Committee. He thanked the Senate Finance Committee for the enormous amount of work the committee has completed in a short time.

Barna, representing the Senate Finance Committee, said that the proposal includes two distinct components: (1) the elimination of the Department of Biomedical Engineering; and (2) the merger of the Biomedical Engineering Program with the Department of Chemical Engineering. These are being treated as joint in the proposal, but they are distinct.

Barna said that the senate had just approved the creation of the Department of Biomedical Engineering last spring. Eliminating the department would allow the elimination of the chair's position and a senior secretary's position. The new, combined department would create an associate chair's position, a staff position, and two GTA positions. SS\&E and space requirements are assumed to transfer.

Barna said that, as Pickens mentioned, the Senate Finance Committee tried to determine the effects of proposed budget cuts not only on the department or college, but also on the university as a whole. They also chose to look at one-time monies, which Warrington said was not part of the charge of the College of Engineering. Hence, the committee took a four-year perspective on the financial impacts of the proposal.

Barna said that there would be no financial impact this year since the proposed changes are not scheduled to take effect until the fall of 2002 . In the second year, the credit for eliminating the chair's position doesn't fully accrue because the chair will have been paid most of his summer salary by the time the change occurs. Additional expenses required for the proposed merger include a staff position (about $\$ 24,000$ ), an associate chair's position (about $\$ 9,000$ summer salary), and two new GTA positions (about $\$ 26,000$ stipend and $\$ 17,000$ tuition each). In conclusion, the committee's analysis showed a slight cost in merging these two programs.

The committee also tried to assess some hidden costs, such as possible enrollment losses. The committee was also concerned about promises made in accepting the Whitaker Grant and assumed that there was at least an implied promise of creating and maintaining a separate biomedical engineering program. Hence, there may be some hidden costs associated with offending granting agencies. Where the committee
assumes a loss of students, they assume the freeing up of space; hence, they allow in their analysis credit for reduced need for constructing and maintaining new space.

Keen called for comments from the College of Engineering.
Warrington said that the College of Engineering has thought of biomedical engineering as a center and has considered possible fits within three departments. Last spring, they formed the Department of Biomedical Engineering, but they revisited that decision when faced with the current budgetary problems. He believes that the college would save about $\$ 80,000$ per year with the proposed merger, not taking into account one-time monies. There would also be some future savings, including eliminating the costs of technician support that are required for a small, stand-alone department. Tufts University has a combined chemical and biomedical engineering department. The goal is to form a critical mass of faculty who can work together. Few of Michigan Tech's tiny departments have been able to make a major impact in terms of national visibility.

Warrington said that visibility of a biomedical engineering program housed within a chemical engineering program would not be a problem for funding purposes. Environmental engineering is one of the college's most heavily funded programs, yet it's housed with the Department of Civil Engineering. The college has already violated the Whitaker grant: the president said that Michigan Tech would continue to support a director, but we are not doing so.

Keen asked if there were any comments from students or faculty in the Department of Biomedical Engineering. There were none.

Keen asked for comments or questions from the senators.
Beck asked if the new GTA positions would be additional costs or if the positions would just be transferred from other programs.

Warrington said that the positions would just be transferred.
Ftaclas asked how this merger looks to us, to our alumni, and to our students, given that the Department of Biomedical Engineering was just created last spring. It was rushed through because we had to have a program in place in time to recruit students.

Warrington said that the College of Engineering was looking for a home for the program where the faculty receiving the program would be happy with it. Since last spring, two faculty have left the Department of Biomedical Engineering, which now has three open faculty lines. Hence, there is an opportunity to hire faculty with cross-over interests in the two programs. The Department of Chemical Engineering voted 10 to 3 with one abstention among the faculty and 6 to 3 among the staff to merge with the Department of Biomedical Engineering. You must have a receptive faculty to make a merger work.

Ftaclas asked why that argument wasn't valid last spring.
Warrington said that there wasn't a department that was willing to receive the biomedical engineering program last spring.

Nelson said that the faculty in the Department of Biomedical Engineering voted 4 to 0 against the merger.
Barna said that the Department of Chemical Engineering did not vote in favor of this merger. They voted in favor of the terms of the agreement that were negotiated between the dean, the provost, and the interim chair if the merger takes place.

> B. Proposal 7-02, Recommendation on the Proposed Elimination of the Department of Mining and Materials Processing Engineering and the Merger of the Mining Engineering Degree Programs with the Department of Geological Engineering and Sciences [Appendix G]

Keen said that there was no Curricular Policy Committee report on this proposal. He called for the report of the Senate Administrative Policy Committee.

Oberto said that the committee met with Prof. Komar Kawatra, chair of the Department of Mining and Materials Processing Engineering, and with Prof. Mark Plichta, associate dean of the College of Engineering. Faculty in the department have been very productive in their research, and much of this research is enabled by the department's laboratories. The continued success of these faculty is in large part dependent on their continued access to these laboratories.

Oberto said that the committee is concerned that students and funding agencies be readily able to identify the mining engineering program. Any new program should be structured such as to maintain the support of industrial advisors, alumni, and others interested in mining engineering.

Keen called for the report of the Senate Finance Committee.
Senator Carl Vilmann said that no degree programs are eliminated in this proposal. The major financial issues are placing the secretary's position on soft money and eliminating the chair's summer salary (the faculty line would not be eliminated, but there would no longer be a chair of Mining and Materials Processing Engineering; hence, there would no longer be a summer salary for this position). The estimated savings would be about $\$ 81,000$.

Warrington said that he agrees with the committee's figures. Combining small departments can crate critical mass and save money. Newly appointed Vice President for Research Dave Reed has said that he wants centers that involve more than one department to report to the college, or if they involve more than one college, to report to the vice president for research.

Keen called for comments from students.
Trent Weatherwax said that he was a third-year mining engineering student. He said that mining engineering students are generally supportive of the merger of departments. However, they are not sure that the administration is concerned with mining engineering. He presented a list of other schools that have combined mining and geology--including the Ohio State University, the University of Minnesota, and the University of Wisconsin-resulting in the demise of the mining programs. The University of Arizona and the University of Utah are two examples of universities where such a merger has worked.

Weatherwax said that the back cover of the 2000-2001 Michigan Tech Annual Report lists national rankings in undergraduate enrollment for various engineering programs. Rankings are provided for chemical, civil, geological, mechanical, and material science engineering. Michigan Tech has the fourthlargest mining engineering program in the nation, but this fact is not mentioned in this list. Neither is the department mentioned in the Annual Report's "Points of Pride." Such things cause students to question the administration's commitment to mining engineering.

Warrington said that Weatherwax's points were well taken. He said that the chair of the Department of Geological Engineering and Sciences has said that he wants to see both programs become nationally recognized. It is in Michigan Tech's best interest to keep its mining heritage alive.

Keen called for comments from faculty associated with either department. There were none. Keen called for comments or questions.

Julie Varichak said that she was a student in mining engineering. She asked whether the department chair's summer salary had been double counted.

Hutzler said that it had not been.

Gregg said that he had sampled the personal opinions of the faculty in the Department of Geological Engineering. One or two strongly favor the merger; one or two strongly oppose the merger; and most are somewhere in the middle. All, however, are in favor of making the mining engineering program work.

## C. Proposal 8-02, Recommendation on the Proposed Elimination of Men's and Women's Varsity Tennis Programs [Appendix H]

Keen called for the report of the Senate Administrative Policy Committee.
Oberto said that the committee had met with students in an open forum. Some students came to Michigan Tech because of the opportunity to play tennis; hence, the university will suffer some loss in enrollment if the tennis programs are eliminated. The tennis teams were first organized at Michigan Tech 60 years ago. There are only 10 universities offering accredited engineering degrees that also have tennis teams. The team helps with recruitment by sending over 1000 letters to high school tennis coaches throughout the Midwest. They also taught about 500 students in tennis clinics, which could be another recruiting device. The Gates Tennis Center would also be negatively affected by the elimination of these programs.

Keen said that the Senate Finance Committee is still working on its report on this proposal. He called for administrative comment on this proposal; there was none. Keen called for student presentations on the proposal.

Kari O'Dell and Kevin (Shawn) Sands introduced themselves as members of the women's and men's tennis teams.

Quoting his grandfather, Sands said "The challenge of every organization is to build a feeling of oneness, because the question is not usually how well each person works, but how they work together." The Michigan Tech men's tennis team was started in 1940; the women's team was started shortly thereafter. A $\$ 700,000$ gift from the Gates Corporation led to the building of the Gates Tennis Center, the only indoor tennis facility in the Upper Peninsula. In the last 25 years, the men's tennis team has been the most successful athletic team at Michigan Tech. When the team competed in the NIC, it always finished in first or second place. When competing in the GLIAC, the team never finished below fifth place. Last year, four members of the women's team and six members of the men's team were named all-conference.

Academically, the average Michigan Tech student's GPA is 3.0. The average varsity athlete's GPA is 3.2. The average GPA for members of the men's tennis team is 3.36 , and the average GPA for members of the women's tennis team is 3.27 .

O'Dell said that Michigan Tech is one of 11 Division 2 universities out of 210 with four or more accredited engineering programs and a men's or women's tennis team. If Michigan Tech is removed from this list, students who want to play tennis and pursue an engineering degree will go elsewhere. Michigan Tech tennis players help to promote the university in a variety of ways, such as by offering tennis workshops. Members of the men's and women's tennis teams have taught tennis to more than 500 students ranging in ages from 8-19. Members of the team come from three different states and five foreign countries.

O'Dell said that the women's tennis team brings in $\$ 41,231$ to the university each year (in tuition, housing, and fees); the men's team brings in $\$ 95,018$, for at total of $\$ 136,249$. The total tennis budget is $\$ 69,416$, which includes the coach's salary with benefits. Hence, the program brings in $\$ 66,833$ more than is spent on the program. This doesn't include the $\$ 5,000$ per player that comes from the state and is given to any student at the university.

Sands said that he was born and raised in the Bahamas. When he was searching for a college, he looked for a school that would allow him to pursue both his academic interests and his interest in tennis. Out of 3000 colleges in the United States, he chose Michigan Tech, because here he could do both. He said that 17 of the 21 players on the tennis teams would not be at Michigan Tech if it were not for the tennis programs.

Sands said that Tennis Coach Mike Axford not only coaches the tennis team but also teaches physical education classes, serves as the Department of Physical Education's computer coordinator, and maintains the Michigan Tech Trails for free.

Professor Patrick Joyce said that he was the faculty athletic representative for Michigan Tech. He said that all of Michigan Tech's athletic programs are Division 2 programs. Our students are not going to become professional players--they're here for the love of the sport they play. They provide a significant addition to the quality of life on the campus, including for those students who do not participate in athletics.

Ftaclas asked if every sport had been subjected to the same "show-us-your-validity" test to which the tennis programs had been subjected.

Joyce said that the athletic programs have a combined budget slightly more than $\$ 1$ million; hence, they were required to propose cuts of $\$ 100,000$ to achieve the goal of 10 percent cost reduction. He said that he believes the proposed cuts were intended to impact the smallest number of student athletes.

Ftaclas said that the cost-reduction process should focus on rational cuts--cuts that might have been advisable apart from the current economic problems. Every sport should be accountable for making such cuts.

Senator Scott Pollins asked how many varsity sports Michigan Tech has added in the past five years.
Joyce said that the university has not added any new varsity sports during that time.
Pollins said that despite this, several new administrative positions have been added in the Athletic Department during that time, including two assistant athletic directors.

Joyce said that these additions were actually position enhancements for the sports information director and for the compliance director.

Senator Becky Christensen asked if in order to comply with NCAA regulations, Michigan Tech would still have to pay for the four scholarships on the women's team.

Joyce said that the university would have to pay for these scholarships until the four recipients graduate. However, the subsequent termination of these scholarships would not violate NCAA regulations. The university is in compliance with Title IX. However, in January, the NCAA will vote on a proposed constitutional amendment. The Division 2 constitution currently requires four men's and four women's sports over three seasons (the four-three rule). The proposed constitutional amendment would require five men's and five women's sports over three seasons. If this amendment passes, if Michigan Tech eliminates the women's tennis program, in three years, the university would have to create another women's athletic team or leave Division 2.

Strong asked what would happen with the Gates Tennis Center if the two tennis programs were eliminated.

Wray said that he believed that if the two tennis programs were eliminated, the center would be used for recreational tennis.

A member of the men's tennis team said that he would not have come to Michigan Tech if he had been unable to play tennis here. He said that in the past three years, he has not seen many people using the Gates Tennis Center for recreational tennis.

Senator Steve Seidel asked whether there was any reason to question the tennis team's claim that cutting these programs would cost the university $\$ 67,000$.

Joyce said that the university seems to lack a comprehensive flow model that would indicate what effects cuts in one area have on other areas. Each component of the university is both a cost center and a revenue center.

In response to Seidel's question, Barna said that the Senate Finance Committee is working on a report on the costs and revenues of the tennis programs. He recommended deferring discussion on this matter until the committee's report has been completed.

Barna said that some of the proposals were examples of opportunistic management. One of the primary reasons for proposing that the Department of Biomedical Engineering merge with the Department of Chemical Engineering is that that just happens to be where the open lines are. This has nothing to do with synergies; it's just trying to take advantage of a current void. The mining and materials processing programs were strategically moved and joined as a center within the past two or three years. Such changes should be based on long-range, strategic management, not on personalities or short-term opportunities.

Dan Adler said that he was a member of the Undergraduate Student Government and that he has been talking with Athletic Director Rick Yeo about the proposed budget cuts. The total budget for the Athletic Department is about $\$ 1.8$ million, so they are expected to cut about $\$ 180,000$. He asked if the tennis team were cut and the university saved $\$ 70,000$, would the administration still come back to the department requiring an additional $\$ 110,000$ in cuts.

In response to Barna, Warrington said that the College of Engineering's budget-reduction proposals were not based on opportunistic management. The original first choice for housing the biomedical engineering program was in the Department of Chemical Engineering. However, there weren't enough available lines at the time. Now there are three lines available and an endowed chair.

Johnson said that the senate needed to look more closely at the effects of the proposed changes on enrollment.

Sands said that if the tennis programs were eliminated, the $\$ 700,000$ gift used to establish the Gates Tennis Center would be wasted.

## 8. ADJOURNMENT

Pollins MOVED and Malette seconded the motion to adjourn. The meeting adjourned at 7:30 p.m.

Respectfully submitted by Craig Waddell
Secretary of the University Senate

