

The University Senate Of Michigan Technological University

Minutes of Meeting 360

14 November 2001

Synopsis: The Senate

- (1) amended and approved Proposal 3-02, Elimination of the AAS Degree Program in Forest Technology.
 - (2) approved Proposal 4-02, Elimination of the Minerals Process Engineering Option Degree Program.
 - (3) amended and approved 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.
 - (4) approved 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.
 - (5) amended and approved Proposal 8-02, Recommendation on the Proposed Elimination of Men's and Women's Varsity Tennis Programs.
 - (6) introduced Proposal 10-02, Amendments to Proposal 16-00, Certificate in Design Engineering.
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1. CALL TO ORDER AND ROLL CALL

President Bob Keen called University Senate Meeting 360 to order at 5:30 p.m. on Wednesday, 14 November 2001, in Room B45 EERC.

Secretary Craig Waddell called roll. Absent were At-large Senator Lee Oberto and representatives from the Keweenaw Research Center and Student Affairs and Educational Opportunity. Liaisons in attendance were Dennis Taylor (USG) and Becky Christianson (Staff Council).

President Keen asked if there were objections to Jim Gale (School of Business and Economics), Renee Greenley (IT), and Dave Poplawski (Computer Science) serving as substitute senators of their respective units. There were none.

2. RECOGNITION OF VISITORS

Visitors included Marcia Goodrich (*Tech Topics*), Provost Kent Wray, Bernie Carr (School of Technology), Neil Hutzler (College of Engineering), Mark Plichta (College of Engineering), Tim Collins (School of Technology), Debra Wright (Biomedical Engineering), Mike Mullins (Chemical Engineering), Mike Axford (Athletic Department), Susan Martin (Social Sciences), and the following MTU students: Dan Adler, Kari O'Dell, Shalini Chandrasaha, Laura Matzka, Gail Hansen, Lindsey Moritz, and Erica Holmsten.

3. APPROVAL OF AGENDA

Keen presented the agenda and asked for amendments. There were none. There were no objections to approval of the agenda as distributed. [**Appendix A.** NOTE: Only official senate and library archival copies of the minutes will contain a full complement of appendices.]

4. PRESIDENT'S REPORT

Keen reported that he received a 12 November memo from Provost Wray in response to the senate

statement regarding the provost's solicitation of senate approval of a committee to review the proposed merger of the School of Technology and the College of Engineering. **[Appendix B]** A copy of this memo will be sent to senators and alternates.

Keen received a memo from the Industrial Advisory Board of the College of Engineering approving the College of Engineering's budget-reduction proposals, which will be addressed at tonight's senate meeting. **[Appendix C]**

Keen received a memo from College of Engineering Dean Bob Warrington in response to senate committee reports on College of Engineering budget-reductions proposals. This memo has been posted on the senate's Web site <www.sas.it.mtu.edu/usenate/>. **[Appendix D]**

Keen received a memo from Department of Biomedical Engineering Chair Dave Nelson in response to senate committee reports on Proposal 6-02. This memo has been posted on the senate's Web site <www.sas.it.mtu.edu/usenate/>. **[Appendix E]**

Keen asked the senate to approve his appointment of a task force to review tenure, promotion, and reappointment procedures. The proposed task force would consist of two members of the University Tenure and Promotion Committee (Tom Snyder and Bogue Sandberg), the chair of the Senate Academic Policy Committee (Carol MacLennan), and someone with special expertise on problems under consideration (Sue Beske-Diehl). There were no objections to the appointment. Keen said that he would deliver a charge to this committee and read that charge into the minutes of the next senate meeting.

Keen thanked Patty Lins (ETS) for arranging the senate's use of Room B45 EERC for this evening's meeting.

Keen said that Provost Wray has appointed a task force to review campus communication during emergencies, such as the recent bomb threat on campus. Bill Blumhardt (Facilities Management) will chair the task force. Judy Fyneweaver (Athletic Department) agreed to serve as the senate's representative on the task force.

5. COMMITTEE BUSINESS/REPORTS

A. Academic Policy Committee [Appendix F]

Senator Carol MacLennan summarized the Senate Academic Policy Committee's 14 November report on the tenure implications of the proposed mergers and degree program changes. MacLennan said that since some of the current budget-reduction proposals include the elimination of departments, the Senate Academic Policy Committee had been asked to clarify whether academic tenure resides in the department, school, or college, or in the university. The committee was also asked to consider the proposed mergers and changes in degrees and address the implications for faculty appointment, promotion, and tenure.

MacLennan said that the Michigan Tech Board of Control Policy Manual clearly indicates that the university--not the department, college, or school--grants tenure. The ultimate authority to grant and remove tenure lies with the Board of Control.

MacLennan said that the Senate Academic Policy Committee had three concerns about the possible effects of the proposed mergers and changes in degrees: (1) Michigan Tech's commitment to untenured, tenure-track faculty, especially those who have only recently been hired; (2) the integrity of promotion and tenure procedures; and (3) the prospect of the proposed mergers creating an unstable research environment, such as for research funding.

MacLennan said that the process of planning and implementing such changes takes longer than has been allowed. Problems resulting from hastily made decisions may have a negative impact on Michigan Tech's reputation.

Senator Mike Roggemann asked how many untenured, tenure-track faculty would be affected by these proposed changes.

MacLennan said that five untenured, tenure-track faculty would be affected.

6. UNFINISHED BUSINESS

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

Keen said that the Undergraduate Student government had five minutes remaining from the presentation time allowed them at the previous senate meeting and that they had asked to use that time at this meeting.

Dan Adler, representing the USG, read a statement from the USG. The letter said (1) the USG supports the continuation of all existing academic programs but recognizes that in the current financial situation, some cuts are necessary; (2) the proposed cutting the AAS in Forest Technology would impact the smallest number of people and allow the School of Technology to achieve its required budget reduction; (3) the concentration in mineral process engineering should not be cut, but should be moved to the Department of Chemical Engineering if this move would save as much money as eliminating the concentration; (4) a combined particulate and mineral process engineering option would be an asset to Michigan Tech; (5) if--as the Senate Finance Committee has reported--the proposed merger of the Department of Biomedical Engineering with the Department of Chemical Engineering will save no money, then the proposal must be rejected; (6) the termination of a department (Biomedical Engineering) that was just created last year and further infractions of the terms of the Whitaker Grant would create a negative image of the university; (7) the USG supports the merger of the Department of the Mining Materials Process Engineering with the Department of Geological Engineering and Sciences if this merger will save the amount suggested by the Senate Finance Committee and if neither of the merged departments is allowed to degrade; (8) cutting the men's and women's varsity tennis teams would save only \$70,000--only a fraction of the \$180,000 the Athletic Department has been asked to cut; (9) the Athletic Department should explore options for saving the tennis teams, such as examining the Athletic Department's approximately \$600,000 in salaries and wages that are not directly related to sports programs.

Keen reviewed the procedure--proposed without objection at that last senate meeting--for addressing the proposals under discussion: each senator will be confined to not more than one statement per proposal unless there is time for additional comments. There were no objections to this procedure.

Keen said that only the academic departments would vote on Proposals 3-02, 4-02, 6-02, and 7-02. All senators would vote on Proposal 8-02.

Keen said that--as discussed at the previous senate meeting--the Senate Executive Committee had proposed addressing both the original proposals, which indicate that the senate supports implementing the proposed changes, and amended proposals, which indicate that the senate does not support implementing the proposed changes.

Senator Deb Bruch asked if the debate should be structured as alternating positions on the issues.

Keen said that this could be done. He said that, at the request of some senators, the votes would be conducted by secret ballot.

Keen called for a motion for Proposal 3-02, Elimination of the Associate's Degree in Forest Technology.

Ftaclas said that he moved to amend the proposal.

Keen said that the main motion must be introduced to the floor before it can be amended.

Ftaclas MOVED and MacLennan seconded the motion for Proposal 3-02.

Keen called for a motion to amend the proposal.

Senator John Williams MOVED and Senator Jim Pickens seconded the motion to amend the proposal as follows: "The Senate *does not* approve the elimination of the AAS Degree Program in Forest Technology."

Ftaclas said that parliamentary process requires that the various proposals under discussion be considered in sequence. However, these various proposals must also be considered holistically. The senate must consider two issues. First, everything the university is now considering doing is undoing something that was done just last year. Even in the case of forest technology, the university last year authorized a search to fill a position that is now proposed to be cut. Second, the Department of Mining and Materials Processing Engineering generated \$3 million in research awards this year according to an 18 September memo from Anita Quinn (Research Services). The Department of Biomedical Engineering--which is just getting started and has only a few faculty--generated \$90,000 in research awards this year. The Department of Chemical Engineering--which is under a heavy teaching burden--has only generated \$147,000 in research funding this year. Hence, this proposal would take one research powerhouse and one potential research powerhouse and put them into a department that has had to worry about its teaching burden. These two issues are critical for all of the proposals. Universities are, have been, and should be glacial in the way they act. That's what gives us our stability. We are behaving like a dot-com, and that's not right.

Senator Bruce Pletka said that at a recent faculty meeting in the Department of Materials Science and Engineering, faculty argued that it was a bad precedent for the university to terminate new untenured, tenure-track faculty. This sends a bad signal to the outside community, especially to job candidates.

Pickens said that the AAS Degree Program in Forest Technology is well respected in the region and that graduates of the program do well in other programs. In response to statements made by students, Pickens said that the Senate Finance Committee's role is to look at the cost of programs, but if the committee evaluated almost any program at Michigan Tech, they would find it to be a money loser, because the programs do not entirely pay for themselves (via tuition and fees) but are subsidized, for example, by approximately \$50 million per year from the State of Michigan. Hence, the fact that the Senate Finance Committee shows a savings from the elimination of a particular program does not necessarily mean that the committee believes that that program should be eliminated.

MacLennan said that enrollments in the forest technology program have only recently dropped. These enrollments are generally tied closely to enrollments in the School of Forestry, which are tied to whether or not the School of Forestry has a recruiter to promote both programs.

Senator Dave Hand said that in 1996, the forest technology program had about 50 students; now the program is down to about 10. Over those five years, only 33 students have completed this two-year degree. Of those who transferred to the BS program, only 10 have completed their degrees during that five years.

Keen called for further comments. There were none.

Keen called for a vote to amend Proposal 3-02 as follows: "The Senate does not approve the elimination of the Associates Degree Program in Forest Technology effective with the conclusion of the 2002-2003 academic year."

The motion to amend Proposal 3-02 PASSED on a secret ballot with 18 YES and 8 NO votes.

Keen asked if there was debate or discussion on the main motion (Proposal 3-02 as just amended). There was none.

Keen said that if the senate had simply voted on the original proposal, a yes-vote would have meant sending the senate's approval of the proposal along to the administration and the Board of Control, and a no-vote would have meant that the senate would not forward the proposal to the administration. Voting to amend the proposal and then voting for or against the proposal as amended provides the senate with the option of actively opposing the original proposal.

The senate voted 20 YES and 6 NO in approval of the main motion. Keen said that the senate would forward to the administration a statement that the senate does not approve the elimination of the Associates Degree Program in Forest Technology

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

Keen introduced Proposal 4-02: "The Senate approves the elimination of the Mineral Process Engineering Option Degree Program effective with the conclusion of the 2002-2003 academic year."

Roggemann MOVED and Pletka seconded the motion to support Proposal 4-02.

Keen called for a motion to amend Proposal 4-02 as follows: "The Senate does not approve the elimination of the Mineral Process Engineering Option Degree Program effective with the conclusion of the 2002-2003 academic year."

MacLennan MOVED and Ftaclas seconded the motion to amend the proposal.

MacLennan asked if a visitor, Mike Mullins, could speak.

Keen asked if there were any objections to Mullins addressing the senate. There were none. Keen invited Mullins to address the senate.

Mullins said that he was the interim chair of the Department of Chemical Engineering. He said that under the current proposal, two faculty from the Mineral Process Engineering Degree Program would be transferred to the Department of Chemical Engineering in lieu of filling two open lines in the department. However, there is currently no agreement that the following resources from the Mineral Process Engineering Degree Program would be transferred to the Department of Chemical Engineering: one open line, two staff persons, and the SS&E budget. The Department of Chemical Engineering currently has a heavy teaching load. Trying to support another degree program with only half of the resources that were formerly allotted for that program would be virtually impossible for the department. The Mineral Process Engineering Degree Program is a worthy degree program; the faculty in this program are among the finest at Michigan Tech. However, the Department of Chemical Engineering cannot do too much with too little. Hence, they would prefer to offer a minor or a concentration in mineral processing rather than a major in this area.

Pletka said that when mineral processing was part of the Department of Geological Engineering and Sciences, it was offered as a minor.

Gregg said he believed that students are not allowed to declare minors that are cognate with their majors. Hence, a chemical engineering major could not declare a minor in mineral processing, since they would be in the same department.

Senator Ruth Archer said that this was not the case: in declaring a minor, students are only required to have a minimum of six credit hours that are not required for their major.

Gregg said that in that case, he would support the proposal as long as a minor or concentration in mineral processing was provided.

Roggemann asked Mullins whether he supported the proposal or not.

Mullins said that this was a resource issue. Unless the Department of Chemical Engineering was provided adequate resources to create a degree program in mineral processing, any attempt to create such a program would fail.

Roggemann asked what cost-reduction alternatives to this proposal have been or might be considered.

Keen said that the administration could withdraw financial support for the Mineral Process Degree Program.

Williams asked for clarification on the proposal to merge the Mineral Process Degree Program with the Department of Chemical Engineering.

Keen said that that was a recommendation of the Senate Curricular Policy Committee, not part of Proposal 4-02.

Professor Jim Gale asked how many students were in the Mineral Process Degree Program.

Associate Dean Mark Plichta said that there were six students in the program: five seniors and one junior.

Keen said that university rules require that students be allowed to complete their degree programs.

There were no further comments. Keen called for the vote.

The motion to amend FAILED on a secret ballot with 14 NO and 4 YES votes.

Keen introduced the main motion: "The Senate approves the elimination of the Mineral Process Engineering Option Degree Program effective with the conclusion of the 2002-2003 academic year." He called for comments. There were none. Keen called for the vote.

The motion to approve the proposal PASSED on a secret ballot with 20 YES and 4 NO votes.

C. 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 [See minutes, page 9360, for a copy of this proposal.]

Keen called for a motion to approve Proposal 6-02.

Roggemann MOVED and Bruch seconded the motion to approve Proposal 6-02.

Keen called for a motion to amend Proposal 6-02 as follows: "The Senate recommends that the plan to eliminate the Department of Biomedical Engineering and the merger of the Biomedical Engineering Degree Program with the Department of Chemical Engineering not be implemented."

John Williams MOVED and Rogers seconded the motion to amend the proposal.

Jim Gale asked how many students were in each department.

Ftaclas said that there are approximately 165 students in the Department of Biomedical Engineering.

Debra Wright (Biomedical Engineering) said that the department has 162 students; about 10-15 students are currently on co-op, and about 15 students are in the Gateway Program and will be admitted to the major if they meet the admissions' criteria.

Ftaclas said that biomedical engineering is a relatively selective program.

Wright said that out of the 24 students who will be invited to campus this December to compete for full MTU scholarships, five are prospective biomedical engineering students.

Mullins said that there are about 400 chemical engineering students at Michigan Tech.

Strong asked if the biomedical engineering students now receive bachelor's degrees in biomedical engineering.

Wright said that they do.

Strong asked if with the proposed change, these students would instead receive bachelor's degrees in chemical engineering.

Keen said that the proposal was not to eliminate the degree program, but to eliminate the department. Hence, students would receive a bachelor of science degree in biomedical engineering from the Department of Chemical Engineering.

Plichta said that the name of the department would likely change as well. The situation would be analogous to a bachelor of science degree in Environmental Engineering being granted by the Department of Civil and Environmental Engineering.

Senator Larry Sutter asked if enough resources from the Department of Biomedical Engineering would be transferred to the Department of Chemical Engineering to allow the degree program to be administered successfully.

Mullins said that they would be.

MacLennan asked where the budget savings would come from if all of the resources are being transferred.

Keen said that this information was included in a memo recently posted on the senate's Web site.

Hutzler said that savings would derive from replacing two secretarial positions with one secretarial position (saving about \$3,000); the biggest savings would be eliminating the need to hire an outside chair for the Department of Biomedical Engineering.

MacLennan asked how much would be saved by not hiring an outside chair.

Hutzler said that about \$70,000 would be saved.

MacLennan asked what salary an outside chair would be offered.

Hutzler said that it would be substantial. Biomedical engineering is a growing field, and it's expensive to hire someone of national stature.

Gale asked if Mullins, currently interim chair, would be replaced as chair of the combined departments by someone with a national reputation in biomedical engineering.

Hutzler said that the primary savings would be in the elimination of one department chair; there would still be an associate chair within the merged department.

Vilman said that at the last senate meeting, David Nelson had said that the four faculty in biomedical engineering had all voted against the proposal. Hence, forcing this merger might be counterproductive.

Sutter asked if the current union contract with secretaries allows for the proposed secretarial adjustments.

Hutzler said that the Human Resources Office has indicated that it does.

Ftaclas asked if not hiring a chair of biomedical engineering would compromise the university's goal of making biomedical engineering a nationally recognized program at Michigan Tech.

Hutzler said that the merged department would instead hire a senior faculty in biomedical engineering. He said that the biomedical engineering program is too small to operate cost effectively as a stand-alone department.

Mullins said that there is some feeling in the Department of Chemical Engineering that the proposed merger is not all bad. Fifty of 300 papers at a recent chemical engineering conference were in the area of biomedical engineering, suggesting many possibilities for synergy within the merged department.

Roggemann asked what cost-reduction alternatives to this proposal have been or might be considered.

Hutzler said that across-the-board cuts might be implemented.

Strong asked how eliminating a chair but hiring a senior faculty member would yield the estimated savings.

Hutzler said that the details of the savings are described in the memo posted on the senate's Web site.

Ftaclas said that it was an overhead issue.

Hutzler said that the biggest savings would be in hiring a senior faculty rather than an outside chair.

Strong said that this was a budget reduction, not a deficit reduction.

Senator Tony Rogers said that the Senate Finance Committee's analysis was quite different from the College of Engineering's analysis. He asked Hutzler to elaborate on the differences.

Hutzler said that the differences were outlined in the college's response to the committee's report. A major difference was that the Finance Committee assumed that it was not necessary to fill the Biomedical Engineering Department's chair position [if the departments were not merged]. The committee assumed a cost for an associate chair's salary, but that cost is already included in the current chair's salary as summer salary. The committee assumed an extra cost for two GTAs, but the GTA positions would just be redistributed, not increased overall at the university. The committee assumed significant administrative and faculty costs in developing and implementing the proposal, but if this proposal were not developed and implemented, these costs would still be incurred in developing and implementing cost reductions elsewhere. The committee also assumed that the merger would result in lost student enrollment; however, enrollments in biomedical engineering are already declining.

Ftaclas said that the Department of Biomedical Engineering had been asked to hold enrollments down so that faculty could handle the teaching load.

Gale asked how many graduate students are enrolled in the Department of Biomedical Engineering.

Wright said that the department has no graduate students because there are no graduate programs in biomedical engineering. Biomedical engineering faculty do advise graduate students in other departments.

Gale asked how many graduate students are enrolled in the Department of Chemical Engineering.

Mullins said that 38 graduate students are enrolled in the Department of Chemical Engineering.

Williams questioned the prospect for synergy among faculty from the two departments. He asked whether any of the faculty in biomedical engineering are qualified in chemical engineering and how many faculty in chemical engineering currently have an interest in biomedical engineering.

Rogers said that he and Debra Wright are considering collaborating on research in artificial-blood replacement.

Wright said that biomedical engineering faculty collaborate on research with faculty from across campus. However, biomedical engineering faculty are not qualified to teach chemical engineering courses.

Plichta said that the College of Engineering had asked the Department of Biomedical Engineering to hold down enrollment because of the size of the faculty. However, the number of applicants to the program is down, possibly because the University of Michigan now has a biomedical engineering program and other such programs are being created in the region.

MacLennan said that the chair of the Department of Biomedical Engineering had told the Senate Academic Policy Committee that applications to the biomedical engineering program are up 15 percent from last year.

Plichta said, however, that applications last year were down 20 percent from the previous year.

Senator Dave Hand said that synergy works well in the Department of Civil and Environmental Engineering.

Keen asked if there were objections to terminating debate. There were none. Keen called for a vote to amend the proposal as follows: "The Senate recommends that the plan to eliminate the Department of Biomedical Engineering and the merger of the Biomedical Engineering Degree Program with the Department of Chemical Engineering not be implemented."

The motion to amend PASSED on a secret ballot with 14 YES and 12 NO votes.

Keen called for a vote on the amended motion.

The motion to approve the proposal as amended PASSED on a secret ballot with 15 YES and 11 NO votes.

D. 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 [See minutes, page 9365, for a copy of this proposal.]

Keen called for a motion to approve Proposal 7-02.

Williams MOVED and Roggemann seconded the motion to approve Proposal 7-02.

Keen called for a motion to approve amending Proposal 7-02 as follows: "The Senate does not recommend the elimination of the Department of Mining and Materials Processing Engineering and the merger of the Mining Engineering Degree Program with the Department of Geological Engineering and Sciences."

Ftaclas MOVED and MacLennan second the motion to amend Proposal 7-02.

Williams asked if there were any comments on this proposal from faculty in the Department of Mining and Materials Processing Engineering.

Senator Dae Young said that the department has not discussed or voted on this proposal.

Strong asked what faculty in the Department Geological Engineering and Sciences thought about this proposal.

Gregg said that he has surveyed department faculty on this issue three times by e-mail. The department favors this proposal. They will work hard to ensure that mining survives at Michigan Tech.

Gale asked if Michigan Tech would lose the word "mining" in any program or curriculum if this proposal is implemented.

Gregg said that the department's name could be changed to reflect the merger and that the mining degree would continue.

Roggemann asked how many faculty and students would be involved in this merger.

Keen said that faculty numbers are available in the chart circulated by the Academic Policy Committee.

Plichta said that there are about 38 undergraduate and about 12 graduate students in mining.

Williams said that a representative of the mining industry had told him that there is a traditional problem between mining, which is seen as technology, and geology, which is seen as science. The two frequently are at odds. In many cases, merging such departments has led to the demise of mining. He said that he believes that the university charter requires Michigan Tech to teach mining.

Keen called for further comments. There were none. Keen called for a vote on Proposal 7-02 amended as follows: "The Senate does not recommend the elimination of the Department of Mining and Materials Processing Engineering and the merger of the Mining Engineering Degree Program with the Department of Geological Engineering and Sciences."

The motion to amend was DEFEATED through a secret ballot with 6 YES and 20 NO votes.

Keen introduced the main motion: "The Senate recommends that plan to eliminate the Department of Mining and Materials Processing Engineering and merge the Mining Engineering Degree Program with the Department of Geological Engineering and Sciences be implemented." He called for questions on this motion. There were none. Keen called for a vote on the main motion.

The motion to approve PASSED on a secret ballot with 20 YES and 6 NO votes.

E. Proposal 8-02, Recommendation on the Proposed Elimination of Men's and Women's Varsity Tennis Programs [See minutes, page 9360, for a copy of this proposal.]

Senator Dick Prince MOVED and Vilmann seconded the motion to approve Proposal 8-02.

Williams MOVED and Rogers seconded the motion to amend the proposal as follows: "The Senate recommends that the proposal to eliminate the Men's and Women's Varsity Tennis Programs not be implemented."

Keen called for the Senate Finance Committee's report on Proposal 8-02.

Senator Jim Pickens said that Michigan Tech could expect to lose some of the 20 students who participate in the men's and women's tennis programs if those programs were eliminated. On the other hand, if those programs were eliminated, the university would save the program budgets and the salary and benefits of the tennis coach. Pickens said that there are also a variety of hidden costs and revenues associated with this proposal. He said that the analysis of the Senate Finance Committee distributed with the agenda was in error. The cost for tennis-team travel was reduced from \$34,000 to \$23,800 because the tennis teams raise money to pay for their own travel. Eighty percent of students participating in the men's and women's tennis teams reported that they would not be at Michigan Tech if it were not for the tennis teams. However, self-reported results are often biased; hence, the Senate Finance Committee reduced this figure to 70 percent.

Pickens said that other hidden costs and revenues include the cost of educating the members of the tennis team and the revenue of increased state appropriations with increased enrollments. Also, Tennis Coach Mike Axford voluntarily grooms the Tech Trails for the cross-country ski team; if Axford discontinued this service, the cost of grooming the trails would be shifted to users. Axford also serves as one of the system administrators for the Athletic Department at no cost to the department.

Roggemann asked what percentage of the Athletic Department's budget is \$30,000.

Strong said that it was about six-tenths of one percent of the department's \$1.8 million annual budget.

Pickens said that there were a number of other issues that should be considered, such as the quality of the students that the tennis teams attract, the fact that tennis on campus contributes to student life, and that the tennis team actively recruits more students to Michigan Tech.

Senator Judy Fynewever said that the members of the men's and women's tennis teams also teach tennis to the youth of the area.

Strong said that because Axford teaches in the Athletic Department and is a constituent of the senate, and because President Tompkins has said that the administration would attempt every possible measure to prevent layoffs, he (Strong) made some phone calls and found that if the tennis teams are eliminated, the administration will attempt to find Axford a job in IT. Hence, a vote to eliminate these programs would result in 20 students and their families being embittered toward the university, the loss of a reputable program, and a computer technician who would rather be our tennis coach--and we would not have saved a dime.

Pickens said he spoke now as a senator rather than as a member of the Senate Finance Committee. The tennis program represents what Michigan Tech needs to be in the future: a university with better and more diverse students. He doesn't see this diversity in the football and hockey teams. The budgets for those teams could have been cut without any significant effect on the teams' success. The proposal to cut the tennis teams seems to be picking on the weakest constituency rather than focusing on enhancing the quality of student life.

Fynewever said that Axford is almost always the coach of the year for his team in the conference.

Keen asked for further comments. There were none. Keen called for a vote on the motion to amend the proposal as follows: "The Senate recommends that the proposal to eliminate the Men's and Women's Varsity Tennis Programs not be implemented."

The motion to amend PASSED on a secret ballot vote of 32 YES and 3 NO votes.

Keen asked if there was any debate on the main motion. There was none. Keen called for a vote on the amended proposal.

The motion to approve the proposal as amended PASSED on a secret ballot with 33 YES and 2 NO votes.

7. NEW BUSINESS

Proposal 10-02, Amendments to Proposal 16-00, Certificate in Design Engineering [Appendix G]

The proposal was introduced as new business. This proposal will bring certificate requirements in line with degree requirements. Currently, the certificate requirements are more demanding than degree requirements.

8. ADJOURNMENT

Gale MOVED and Bruch seconded the motion to adjourn. The meeting adjourned at 7:35 p.m.

Respectfully submitted by Craig Waddell
Secretary of the University Senate