

RECORD OF PROCEEDINGS

Golden, Colorado
January 10, 1986

The Board of Trustees met in regular session on January 10, 1986, at 9:00 a.m.

Trustees present: Mrs. Allen, Mr. Henderson, Ms. Linch, Messrs. Warren, Wilson and Wood.

Trustees absent: Messrs. Pascoe and Schwartzberg.

Also attending the meeting were President Ansell, Vice Presidents Golden, Robbins, and Scott, Deans Gentry and Romberger, Prof. Rex Bull, faculty representative, other staff members, and visitors.

Mr. Wood presided.

Mr. Wood introduced Dr. Harold R. Chevront, who is the new Dean of Student Affairs.

Previous Minutes. The minutes of the meeting held on December 13, 1985 were approved as distributed.

New Faculty Appointments. Dr. Golden informed the Board that there are no new appointments to the faculty. Dr. Golden reported the resignations of Dr. Harold Taylor, Assistant Professor of Mathematics, and Dr. Sanford Krolick, Assistant Professor of Humanities & Social Sciences. effective December 31, 1985.

New Research Awards. Dr. Romberger reviewed the new research awards for December 1985, and responded to questions.

Monthly Reports. Mr. Scott reviewed the monthly reports as follows: Current Funds Revenues, Expenditures and Other Changes for the six months ending December 31, 1985; Auxiliary and Self-Funded Activities for the six months ending December 31, 1985; and Time Deposits and Investment Report, December 31, 1985. It is his belief that the School is operating within the revenues projected for the 1986 fiscal year.

Enrollment. Mr. Spaulding informed the Board that as of January 9 1,700 students had completed a detailed survey on student life. He discussed enrollment figures, stating that there is a shortfall of forty undergraduate students. However, the resulting tuition shortfall is not expected to exceed the budget overage projected in fall 1985.

Dr. Romberger reported that he expects a graduate student enrollment of 650.

Mr. Young informed the Board that fifteen to eighteen percent of the candidates for admission do not meet the requirements. Mr. Young distributed a memorandum dated January 10, 1986, outlining planned recruiting activities for spring 1986.

RECORD OF PROCEEDINGS

2

Mrs. Sue Mitchell distributed a summary of the CSM Alumni Admissions Program and stated that the program has been successful due to the assistance of the Alumni Association.

Mr. Norman Zehr, Executive Director of the Alumni Association, commented on the program and stated that he feels the program is off to a good start.

Mr. Henderson expressed his appreciation for the work being done in the area of recruiting.

Sabbatical Report. Dr. Daniel M. Bass, Professor of Petroleum Engineering, who was on leave during the 1984-85 academic year at one-half pay, presented his sabbatical report. Dr. Bass discussed his activities during the leave period and thanked the Board for the opportunity to take a sabbatical. He announced that he will be retiring in May 1985 after 24 years on the CSM campus.

Mr. Wood thanked Dr. Bass for his report.


Report on Center for Wave Phenomena. Dr. Norman Bleistein, Director of the Center, presented the report. He discussed the staffing of the Center, the activities in which he and his staff are presently engaged, and the funding for the Center. Discussion ensued.

Mr. Wood thanked him for his report.

Option Video. Ms. Linch reminded the Board that when Mr. Lon Rosenzweig was the student representative to the Board, he proposed to the Board the idea of making video tapes available in each option in order to assist students in selecting an option at CSM. The Board viewed the video tape which was prepared by the Chemical Engineering and Petroleum Refining Department. Ms. Linch informed the Board that this project was funded by the Student Council, the Student Development Center, the Chemical Engineering and Petroleum Refining Department, and other donors.

Discussion ensued, during which it was proposed that video tapes be prepared in each option for use in recruiting. Mr. Young stated that requests for proposals are being sent to people who do work in this area.

The meeting was adjourned at 10:55 a.m., and the Board went into executive session.


Secretary

January 10, 1986

RECORD OF PROCEEDINGS

Golden, Colorado
February 7, 1986

The Board of Trustees met in regular session on February 7, 1986, at 9:00 a.m.

Trustees present: Mr. Henderson, Ms. Linch, Messrs. Pascoe, Schwartzberg, Warren, Wilson and Wood.

Trustees absent: Mrs. Allen.

Also attending the meeting were President Ansell, Vice Presidents Robbins and Scott, Deans Gentry and Romberger, Prof. Rex Bull, faculty representative, other staff members, and visitors.

Mr. Wood presided.

Previous Minutes. The minutes of the meeting held on January 10, 1986 were approved as distributed.

Mr. Pascoe entered the meeting at this time.

New Faculty Appointments. Dr. Gentry presented the report as follows:

Dr. Hugh D. Grove Adjunct Associate Professor of Mineral Economics	\$3,600 for teaching in the Mineral Economics Executive Program from November 2, 1985 to January 11, 1986
Dr. Mogens Hendriksen Professor of Engineering	\$42,000 for the 1986- 87 academic year
Mr. Fred F. Meissner Adjunct Professor of Geology	\$4,000 for the spring semester of the 1985- 86 academic year
Dr. Marian Radetzki Visiting Professor of Mineral Economics	\$60,000 for the 1986- 87 academic year
Mr. T. James Reynolds Adjunct Assistant Professor of Geology	No compensation for the spring semester of the 1985-86 academic year
Ms. Charlotte G. Root Part-time Instructor in Mathematics	No compensation for the spring semester of the 1985-86 academic year

RECORD OF PROCEEDINGS

3

Dr. Ronald N. Knoshaug Instructor in Geophysics	\$14,195 for teaching GP 306 and developing activities related to the Artificial Intelligence Lab, for the spring semester of the 1985-86 academic year
Mr. Patrick Madison Part-time Instructor in Mathematics	\$3,000 for the spring semester of the 1985-86 academic year
Dr. Thomas J. McInerney Adjunct Associate Professor of Humanities and Social Sciences	\$5,000 for the spring semester of the 1985-86 academic year
Dr. R. Gerald Nix Adjunct Associate Professor of Chemical Engineering and Petroleum Refining	\$3,500 for the spring semester of the 1985-86 academic year
Mr. George W. Pring Adjunct Professor of Environmental Sciences and Engineering Ecology	\$5,200 for the spring semester of the 1985-86 academic year

Continuation of Appointments (after interruption)

Dr. Henry A. Babcock Adjunct Professor of Engineering	\$3,000 for the spring semester of the 1985-86 academic year
Dr. Terence J. Lohman Adjunct Assistant Professor of Humanities and Social Sciences	\$2,500 for the spring semester of the 1985-86 academic year

New Research Awards. Dr. Gentry reviewed the new research awards for January 1986, and responded to questions.

Monthly Reports. Mr. Scott reviewed the monthly reports as follows: Current Funds Revenues, Expenditures and Other Changes for the seven months ending January 31, 1986; Auxiliary and Self-Funded Activities for the seven months ending January 31, 1986; and Time Deposits and Investment Report, January 31, 1986. It is his belief that the School is operating within the revenues projected for the 1986 fiscal year.

The Board requested that the monthly report be modified to indicate the rate of spending compared to previous periods.

President Ansell responded to questions concerning the new computer system and indicated that he is pleased with the system. Discussion ensued.

February 7, 1986

RECORD OF PROCEEDINGS

4

Enrollment. Mr. Spaulding reviewed the Registrar's Report for Spring 1985-86 and distributed a memorandum which reflects the final enrollment statistics for Spring 1985-86. Comparable final statistics for the Spring 1984-85, Spring 1983-84 and Spring 1982-83 semesters are also reflected in the memorandum.

Mr. Schwartzberg requested that the Board be provided with estimated figures for fall enrollment and also long-term enrollment projections. Mr. Wilson asked for information regarding the impact of newer degree programs on total enrollment.

Mr. Young reviewed his report on the number of women and ethnic minority students who have applied for admission for the fall semester 1986.

Sabbatical Report. Dr. Kent J. Voorhees, Associate Professor of Chemistry and Geochemistry, who was on academic leave during the 1984-85 academic year at one-half pay, presented a report on his activities during that period. He informed the Board that he was involved in a research project, which he has attempted to commercialize. He said that he feels he now has a better understanding of the needs of industry and believes he understands better how academicians can interact with industry.

Dr. Voorhees urged the Board to maximize the number of faculty who can go on sabbatical leaves and thanked the Board for giving him the opportunity to take sabbatical leave.


Mr. Wood thanked Dr. Voorhees for his report.

Report on Center for Groundwater Research and Education. Dr. Ken Kolm, Associate Professor of Geology and Director of the Center, presented a report, emphasizing that this is an interdisciplinary institute, not a center. He reviewed the background of the institute, outlining the institute's purposes, presenting figures on institute research dollars, and discussed the institute's education courses. He discussed the structure of the institute, outlined the progress that has been made, and discussed the goals. Discussion ensued, during which Dr. Kolm responded to questions.

Mr. Wood thanked him for his report.

CCHE Tuition Policy Task Force. Mr. Schwartzberg reported that he had received a draft policy from the CCHE staff. He stated that the report contained some guidelines which would take away the autonomy from the institution in setting tuition and fees. President Ansell stated that after several meetings involving this draft policy, the report was withdrawn.

The meeting was adjourned at 11:40 a.m., and the Board went into executive session.


Secretary

February 7, 1986

RECORD OF PROCEEDINGS

Golden, Colorado
March 14, 1986

The Board of Trustees met in regular session on March 14, 1986, at 9:00 a.m.

Trustees present: Mr. Pascoe, Ms. Linch, Messrs. Warren, Wilson, and Wood.

Trustees absent: Mrs. Allen, Messrs. Henderson and Schwartzberg.

Also attending the meeting were President Ansell, Vice Presidents Nyikos and Scott, Dean Romberger, Prof. Rex Bull, faculty representative, other staff members, and visitors.

Mr. Wood presided.

Previous Minutes. The minutes of the meeting held on February 7, 1986 were approved as distributed.

New Faculty Appointments. Dr. Golden presented the report as follows:

Dr. Al Balch Visiting Professor of Geophysics	\$18,000 for the spring semester of the 1985-86 academic year at 75% effort
Mr. Qu Yi Visiting Research Associate Professor of Physics	No compensation. The Chinese government will pay his salary for the period June 1, 1986 to June 1, 1987.

Reappointment after Interruption

Dr. Ralph Holmer Adjunct Professor of Geophysics	\$2,000 for the spring semester of the 1985- 86 academic year
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Dr. Golden informed the Board that the Administration is pleased with the number of new faculty additions for next year and is also encouraged by the quality and number of candidates it has seen in the last four weeks. Adding quality faculty, both junior and senior, is a key component of institutional strategy. Last year CSM made a deep financial commitment to solving the computing problem on the Mines campus. Next year the Administration will make a deep financial commitment in quality new faculty. This staffing commitment will mean that we will be substantially overstaffed for the student enrollment, which will result in strain on other parts of the School budget. The faculty numbers will be a concern in the 1987-88 academic year since we anticipate lower state funding because funding, in all probability will be based upon student numbers determined by a two-year rolling average. The Administration is hoping to deal with this problem by

RECORD OF PROCEEDINGS

2

encouraging nonproductive faculty to leave CSM or retire and increasing faculty support from sponsored research.

Dr. Golden stated that although he is optimistic about additional faculty hiring, the Departments of Mathematics, Engineering, and Mineral Economics are still understaffed.

New Research Awards. Dr. Romberger reviewed the new research awards status as of February 28, 1986. He reported that an award level of \$668,955 for the month of February represents a high month. However, the cumulative award level of \$4,379.173 still lags last year by over \$300,000 and is well behind our announced goal of \$8,000,000 for the 1985-86 period. Issues that concern the Administration are as follows:

Growth in sponsored research is a key component of our short-range institutional strategy. A weakness in this area has downstream impact.

The Federal climate for future sponsored research funding in a number of our traditional areas is not good--DOE, NSF, BOM.

The prospect of private-sector funding with \$13 a barrel oil and the state of the mining industry is not exceptionally positive.

In order to expand our sponsored research program we must add dynamic new faculty that will be both excellent in the classroom and can help us build our sponsored programs effort.

Although we are hopeful that more of our present faculty will ultimately become active in sponsored research programs, it is not likely that we can achieve our research goals with the present faculty complement.

In spite of the problems in this arena, the Administration remains committed to the growth of sponsored research as one of the key components of our institutional plan.

Monthly Reports. Mr. Scott reviewed the monthly reports as follows: Current Funds Revenues, Expenditures and Other Changes for the Eight months ending February 28, 1986 Colorado School of Mines State Appropriated Funding Comparison of FY 1986 to FY 1985 for the eight months ending February 28; Auxiliary and Self-Funded Activities for the eight months ending February 31, 1986; and Time Deposits and Investment Report, February 28, 1986. It is his belief that the School is operating within the revenues projected for the 1986 fiscal year. Mr. Scott said that report #1a has been added in response to the Board's request for comparative numbers.

Enrollment. Mr. Spaulding gave a presentation on enrollment projections, which assume: Fall new freshmen and transfers (1987 -)- 485; Spring new freshmen and transfers (1987 -)- 35; a steadily increasing graduate enrollment reaching 950 by Fall 1990 and staying at 1000 thereafter; and a continuation of current attrition percentages. Mr. Spaulding

March 14, 1986

RECORD OF PROCEEDINGS

2

Dr. Eul-Soo Pang Director of the Latin American Center and Professor of Economics and International Relations, with tenure	\$52,000 for a nine- month contract, to be pro-rated on a three- month basis, for the last three months of the 1985-86 academic year, beginning March 1, 1986, and ending May 9, 1986
Dr. Laura Pang Director of International Student Services and Assistant Research Professor of Humanities and Social Sciences	\$25,000 for a nine- month contract, to be pro-rated on a six- month basis, beginning December 6, 1985 and ending May 9, 1986
Dr. Judith D. Schlesinger Adjunct Associate Professor of Mathematics	\$4,000 for the spring semester of the 1985- 86 academic year
Dr. Gerry M. Wiener Adjunct Assistant Professor of Mathematics	\$8,000 for the spring semester of the 1985- 86 academic year
Dr. Charles E. Wyman Adjunct Professor of Chemical Engineering and Petroleum Refining	\$3,900 for the spring semester of the 1985- 86 academic year
Continuation of Appointments	
Dr. James Ely Adjunct Professor of Chemical Engineering and Petroleum Refining	\$3,700 for the spring semester of the 1985- 86 academic year
Dr. Robert C. Drury Visiting Assistant Professor of Mineral Economics	\$3,500 for the spring semester of the 1985- 86 academic year
Dr. Thomas M. Flynn Adjunct Professor of Chemical Engineering and Petroleum Refining	\$3,500 for the spring semester of the 1985- 86 academic year
Dr. Robert D. Hamilton Adjunct Associate Professor of Geology	No compensation for the spring semester of the 1985-86 academic year
Dr. Richard Harlan Adjunct Professor of Geology	\$3,000 for the spring semester of the 1985- 86 academic year
Dr. Hossein Kazemi Adjunct Associate Professor of Petroleum Engineering	\$3,570 for the spring semester of the 1985- 86 academic year
Dr. Robert Knecht Adjunct Associate Professor of Chemical Engineering and Petroleum Refining	\$3,700 for the spring semester of the 1985- 86 academic year

February 7, 1986

RECORD OF PROCEEDINGS

3

stated that if these assumptions are accurate, total enrollment will decline from 2758 in Fall 1985 to a low of 2660 in Fall 1987 and then rise to a steady state approaching 3000 in the mid-1990s.

Mr. Young reviewed the Admissions Report dated March 3, 1986, and discussed recruiting.

Emeritus Status for Retirees. Dr. Golden informed the Board that under the Faculty Handbook (Tenth Edition, August 1982) requirement of a minimum of ten years of valuable service with at least five of these years as a full professor or a minimum of thirty years of service irrespective of rank, there are five faculty members who are retiring on full or transitional status following the current academic year who qualify to be submitted to the Board for consideration for emeritus status. They are:

Daniel M. Bass, Jr., Petroleum Engineering
Jerrold J. Burnett, Physics
S. Dale Foreman, Engineering
James H. Gary, Chemical Engineering and
Petroleum-Refining
J. Edward White, Geophysics

Dr. Golden informed the Board that Drs. Bass and Burnett are retiring and Drs. Foreman, Gary and White are taking transitional retirement.

The Board unanimously approved conferral of emeritus status for these retirees.

Legislative Report. Dr. Nyikos reviewed Legislative Summary #1 which he had submitted to the Board and added that the CCHE has approved a 20% window for Fall 1986. This means that the entrance requirements as promulgated by the JBC remain the same with the exception that CSM will be allowed 20% of entering freshmen outside the requirements rather than 10%. CSM's failure to meet the 10% window this past fall will result in a negative supplemental from the JBC of \$136,646. The JBC staff had recommended \$475,000; the CCHE had recommended \$325,000. This issue is still somewhat fluid.

Dr. Nyikos reported that the CCHE task forces continue and said that the CCHE will probably attempt to eliminate some programs at all institutions.

Dr. Nyikos informed the Board that the following luncheons have been scheduled:

March 27 with the Jeffco delegation
March 31 with the House leadership
April 2 with the Senate leadership

Tuition and Fees Policy. President Ansell reviewed the revised policy which was developed and endorsed by governing board CEO's on February 21, 1986. The policy will be on the May CCHE agenda.

March 14, 1986

RECORD OF PROCEEDINGS

4

Discussion ensued, following which the Board unanimously approved the proposed tuition and fees policy.

Commencement Status Report. Dr. Chevront informed the Board that the May 10, 1986 Commencement ceremonies will be held outside on Meyer Commons with the platform facing East. Should we have inclement weather the ceremonies will be held in the Green Center. The reception for the graduates and their families will be held outside on Stratton Commons. The student awards will be presented to the students as they cross the stage rather than at dinner the evening before Commencement.

Course Requirements for Ph.D. Degree. Dr. Romberger informed the Board that at the February 26, 1986 meeting of the Graduate Faculty, the following motion was passed:

Minimum course work requirements are established by the major department. The specific program of each candidate is approved by his thesis committee. Each doctoral candidate is required to take a minimum of 12 semester hours of graduate credit in a minor field outside of the major department. The thesis (703) must be taken at the Colorado School of Mines.

Dr. Romberger told the Board that at the present time there is a requirement of 60 course credits, including the Masters Degree, for the Ph.D. program. Some departments are finding this restrictive in terms of recruiting new graduate students. In addition, the School is striving for a greater emphasis on graduate research, and the new requirements would make the Ph.D. a true research degree as it is at other major research institutions. However, the new policy will place significantly more responsibility on the faculty for evaluating a student's progress. In addition, a tighter system of qualifying and comprehensive examinations are required. Before a Department can adopt the new policy, its requirements must be approved by the Graduate Council.

Metallurgical Engineering Advisory Board. President Ansell reviewed Dr. Copeland's memorandum of March 10, 1986, which states that following consultation with his Department's faculty, the Administration, and the CSM Foundation, the following list of proposed members for Metallurgy's Advisory Board is recommended for approval:

Philip Abramowitz, Asst. VP R & D, St. Joe
Arden Bement, VP Tech. Res., TRW
Joe Coors, Jr., CEO, Coors Porcelain
Terence McNulty, CEO, Hazen Research
Rex Guinevere, Exec. VP, Homestake
Milt Wadsworth, Eng. Dean, U. of Utah
Mel Bernstein, MT Dept. Head, CMU
Bhakta Rath, Supt. Mat. Sci., Naval Res. Lab.
Siegfried Hecker, Los Alamos
Ben Wilcox, Asst. Director, DARPA

In his memorandum Dr. Copeland stated that it is anticipated that not all of these candidates will be able to

March 14, 1986

RECORD OF PROCEEDINGS

5

accept the invitation. The following alternates have therefore been chosen:

Neil Patton, Rockwell International
Lawrence Loechel, Martin Marietta

The Board unanimously approved the proposed candidates, including the alternates.

The meeting was adjourned at 10:40 a.m., and the Board went into executive session.


Secretary

March 14, 1986

RECORD OF PROCEEDINGS

Golden, Colorado
April 11, 1986

The Board of Trustees met in regular session on April 11, 1986, at 9:00 a.m.

Trustees present: Ms. Allen, Mr. Henderson, Ms. Linch, Messrs. Pascoe, Schwartzberg, Wilson, and Wood.

Absent: Mr. Warren.

Also attending the meeting were President Ansell, Vice Presidents Golden, Nyikos, Robbins and Scott, Deans Gentry and Romberger, Prof. Rex Bull, faculty representative, Mr. Dick Ross of the CCHE, other staff members, and visitors.

Mr. Wood presided.

Previous Minutes. The minutes of the meeting held on March 14, 1986, were approved as distributed.

New Faculty Appointments. Dr. Gentry presented the report as follows:

Dr. Timothy Hayes Professor of Physics	\$45,000 for the 1986-87 academic year
Dr. William Spence Adjunct Professor of Geophysics	Graduate advising for the period January 6 to December 19, 1986 for no compensation
Mr. Gysbert J. Wessels Part-Time Instructor in Mathematics	No compensation for for the spring semester of the 1985- 86 academic year
Dr. David C. Stickler Professor of Mathematics	\$24,500 (based on an annual academic year salary of \$49,000) for the spring semester of the 1985- 86 academic year

Dr. Gentry informed the Board that CSM has been extremely fortunate in being able to attract and subsequently hire quality faculty members throughout the academic year. He strongly believes that these faculty members will significantly impact our ability to move the institution forward, as well as individual academic programs associated therewith. Dr. Gentry noted that a total of three additional hiring offers are outstanding at this time with a high probability that four additional offers will be made in the very near future. Success in hiring additional faculty for the Engineering and Mineral Economics Departments will alleviate the understaffing which now exists. In addition to the faculty hiring actions which have occurred, the CSM administration is continuing its efforts to

RECORD OF PROCEEDINGS

2

encourage non-productive faculty members to retire or terminate employment with CSM and to reduce annual faculty salary obligations by increasing faculty support from sponsored research.

Mr. Henderson indicated that he would like to see a pre-hiring rating system implemented which would include each new faculty member.

New Research Awards. Dr. Golden reviewed the new research awards as of March 31, 1986. He reported that an award volume of \$851,013 represents a good month compared to \$441,762 for March 1985. The cumulative award level of \$5,230,186 for FY 1986 is slightly ahead of that of FY 1985 of \$5,136,898. However, the rate of new award volume growth is well behind what is necessary to attain the goal of \$8,000,000 for this fiscal year.

In evaluating the sponsored research volume the following factors are significant:

- softness in funding from traditional agencies such as NSF, DOE, BOM, etc. and the depressed state of the private energy and minerals sectors.

- in order to expand sponsored research activity it is necessary to hire new faculty oriented towards research, as it is not expected that the existing faculty will help in expanding this area.

- the only way of supporting an increased graduate student compliment is through sponsored research activity.

- There has been some growth in proposal preparation for March 1986, when 21 proposals were submitted, compared to 16 for March 1985. Cumulative for FY 1986 is 173 compared to 131 for FY 1985. Total proposals submitted in FY 1985 was 191.

Dr. Chevront reviewed the upcoming E-Day events.

Monthly Reports. Mr. Scott reviewed the monthly reports as follows: Current Funds Revenues, Expenditures and Other Changes for the Nine Months Ending March 31, 1986; Colorado School of Mines State Appropriated Funding Comparison of FY 1986 to FY 1985 for the nine months ending March 31; Auxiliary and Self-Funded Activities for the nine months ending March 31, 1986; and Time Deposits and Investment Report, March 31, 1986. It is his belief that the School is operating within the revenues projected for the 1986 fiscal year.

Designation of Gift Funds as Quasi-Endowment. Mr. Scott informed the Board that from time to time gifts have been received which are undesignated by the donors as to the form in which they are to be held by CSM. Five such gifts are listed with a brief description of the nature of each. The list is appended hereto.

April 11, 1986

CSM
BOARD OF TRUSTEES
AGENDA ITEM

Date of Meeting 4-11-86
Item Number 4-6
Presented By Gordon Scott

Subject:

Designation of gift funds as quasi-endowment

Background Information

From time to time gifts have been received which are undesignated by the donors as to the form in which they are to be held by CSM. Five such gifts are listed, attached, with a brief description of the nature of each.

It is requested that the Board designate each of these as quasi-endowment funds, making them subject to the rules that govern endowments and quasi-endowments, with the understanding that quasi-endowments may be redesignated for other purposes by future actions of the Board.

Action Motion Requested:

Move that the Board of Trustees designate the following named funds as quasi-endowment funds of the Colorado School of Mines:

Paul F. Bartunek Trust
Eugene George Snedaker
Clair S. Johnson
Verne Frazee Scholarship
Catharine B. Dobbin

RECORD OF PROCEEDINGS

3

Mr. Scott requested that the Board designate each of these, with the exception of the Paul F. Bartunek Trust, as quasi-endowment funds, making them subject to the rules that govern endowments and quasi-endowments, with the understanding that quasi-endowments may be redesignated for other purposes by future actions of the Board.

Motion was made, seconded and approved to designate the following named funds as quasi-endowment funds of the Colorado School of Mines:

Eugene George Snedaker
Clair S. Johnson
Verne Frazee Scholarship
Catharine B. Dobbin

Mr. Scott informed the Board that the bids for the renovation of Stratton Hall have been received, and the work of the general contractor is to be completed within 250 days of notice to proceed. Mr. Scott stated that January 1987 is the projected completion date.

Enrollment. Mr. Young reviewed the Admissions Report dated April 1, 1986. He discussed the number of women and ethnic minority students who have applied for the fall semester 1986. Eighteen percent of the total applicants and nineteen percent of the total accepted students for the fall semester 1986 are women. Ethnic minority applicants to date represent eleven percent of the total applicants and nine percent of the total applicants accepted

Mr. Young informed the Board that a detailed report on applications and acceptances of graduate students will be submitted to the Board at the May meeting

Report on Center for Potential Field Studies. Dr. Golden introduced Dr. Norman Harthill, Director of the Center, who presented the report. Dr. Harthill discussed staffing and the purpose of the Center. He reviewed the list of sponsors and research performed for those sponsors. He discussed the areas of research performed by the staff of the Center.

Mr. Wood thanked Dr. Harthill for his report.

AICHE Book Sale Proposal. Ms. Linch introduced students Pamela Drabek and Jennifer Rodman, who presented the proposal. They pointed out that this would be a bookstore for chemical engineering students sponsored by American Institute of Chemical Engineers (AICHE). The reasons given for establishment of the bookstore are to reduce the cost of books for the students and to generate income for the AICHE organization to send members to the annual convention. The bookstore would be located in Alderson Hall on the third floor, which is now a large storage room. The bookstore would be in operation the first two weeks of each semester.

Dr. Nyikos informed the Board that he would be willing to work with the students in this endeavor.

April 11, 1986

RECORD OF PROCEEDINGS

4

It was moved, seconded and approved to allow the administration to permit this kind of activity on a case by case basis.

Sabbatical Report. Dr. Kenneth W. Edwards, Associate Professor of Chemistry and Geochemistry, who was on leave during the fall semester of the 1985-86 academic year at one-half pay, presented the report. Dr. Edwards informed the Board that his objective for his sabbatical was to do research and to set up a working relationship with the U.S.G.S. Water Resources Division. He wanted to establish a base for funding graduate students through the U.S.G.S. in the future. Dr. Edwards presented slides of the equipment on which he worked during his leave.

Mr. Wood thanked Dr. Edwards for his report.

Legislative Report. Dr. Nyikos reviewed Legislative Summary #2, dated April 3, 1986, which discusses the activities of the JBC, pending legislation, and the activities of the CCHE.

Request to CSMF Board. Dr. Golden reminded the Board that it must approve any request for financial support that is presented to the CSMF Board. Last year the CSMF Board approved a request for \$600,000 for support of School activities. This support has been used to support the following offices:

President's Office -- Travel, entertainment,
commencement and Trustees
Conference

Graduate School -- Student recruiting and support

Vice President for Academic Affairs -- Faculty
travel, improvement
and recruiting

Student Financial Aid -- Undergraduate student
support

CSM again requests that the School of Mines Foundation Board approve \$600,000 of support of these activities for the 1986-87 academic year.

Our institutional need for support in these areas is greater than \$600,000; however, based upon the financial situation of the Foundation and the other activities that they must fund, our request is limited to \$600,000. A copy of the request is appended hereto.

The Board unanimously approved the request.

The meeting was adjourned at 10:45 a.m., and the Board went into executive session.


Secretary

April 11, 1986

GIFTS TO BE
DESIGNATED QUASI-ENDOWMENTS BY THE
BOARD OF TRUSTEES

Paul F. Bartunek Trust

Provisions of the Trust

The principal be distributed equally to the departments of Physics and Mathematics to be used only for serious students seeking to advance themselves in their respective fields starting in the junior year and including graduate students.

Current Financial Status: \$76,636

Principal Managed by the Massachusetts Fund

Income is being distributed to the Physics and Mathematics Departments

Eugene George Snedaker

Provisions of the Will

...I give and devise the then existing trust property and all of the undistributed income therefrom to the trustees of the Colorado School of Mines at Golden, Colorado, to be used for the purpose of establishing and administering a scholarship fund for the aid of students enrolled in said school who are, in the descretion of the said trustees, deserving of aid in the fulfillment of their education.

Current Financial Status: \$66,690

Principal Managed by United Banks

Income is being distributed to a scholarship account

Claire S. Johnson

Provisions of the Will

Article III, I give all of my estate as follows:....2. Ten thousand dollars to COLORADO SCHOOL OF MINES, located in Golden, Colorado.

Current Financial Status: \$30,202

\$10,000 on loan to the Kipfer Life Income account, the remainder managed by Colorado School of Mines (Pooled Funds)

Verne Frazee Scholarship

Provisions of Myrtle M. Frazee's Will

...To COLORADO SCHOOL OF MINES, of Golden, Colorado, one-fifth thereof, to be used for scholarships in memory of decedent's late husband, Verne Frazee.

Current Financial Status: \$86,418

Principal Managed by Colorado School of Mines (Pooled Funds)

Catharine B. Dobbin

Provisions of the Will

...Twenty-Five (25%) to The Colorado School of Mines in Golden, Colorado...

Current Financial Status: \$38,879

Entire amount on loan to the Kipfer Life Income account

TO: President Ansell
 FROM: John Golden
 SUBJECT: Support from the Colorado School of
 Mines Foundation
 DATE: April 4, 1986


In order to make budget plans for the 1986-87 academic year, it is important that we know the level of Foundation support that we can expect for the coming year. Accordingly, I recommend that we request the following level of support from CSMF for the 1986-87 academic year. If you concur, then this request must be approved by our Trustees on April 11.

Colorado School of Mines Foundation Support

	<u>Actual for FY 84</u>	<u>Allocated for FY 85</u>	<u>Request for FY 86</u>	<u>Request for FY 87</u>
Financial Aid	1,405,000	400,000		
Faculty Improvement Fund				
Professional Develop- ment & Travel	28,400	40,000		
Recruiting	15,000	15,000		
Graduate School	90,000	95,000		
President's Office	<u>46,800</u>	<u>50,000</u>		
Subtotal	1,585,200	600,000	600,000	600,000
Legislative Services	37,000	40,700	45,000	47,000

As can be seen, I have not specified budget categories for the FY 87 request. After we know the level of funding from the State of Colorado, then we will be able to specify categories for the use of these funds as we develop full budget plans for the coming year.

CONCUR:



 George S. Ansell
 President

RECORD OF PROCEEDINGS

Golden, Colorado
May 9, 1986

The Board of Trustees met in regular session on May 9, 1986, at 1:30 p.m. in the Coronet Room of the Brown Palace Hotel.

Trustees present: Ms. Allen, Mr. Henderson, Ms. Linch, Messrs. Pascoe, Schwartzberg, Warren, Wilson, and Wood.

Also attending the meeting were President Ansell, Vice Presidents Nyikos, Robbins and Scott, Deans Gentry and Romberger, other staff members, and visitors.

Mr. Wood presided.

Ms. Linch introduced Mr. Fred Earnest, newly-elected student representative to the Board of Trustees. Mr. Earnest will take office at the July Board meeting.

Previous Minutes. The minutes of the meeting held on April 11, 1986, were approved as distributed.

New Faculty Appointments. Dr. Gentry presented the report as follows:

Dr. Aaron J. Gordon Assistant Professor of Mathematics	\$38,000 for the 1986-87 academic year
Dr. James McNeil Assistant Professor of Physics	\$30,000 for the 1986-87 academic year
Dr. Steven Pruess Professor of Mathematics	\$45,000 for the 1986-87 academic year
Dr. Miklos D. Salamon Distinguished Professor of Mining Engineering (with tenure), Head of Dept. of Mining Engineering, and Director of the Center for Advanced Mining Systems	\$85,000 for the 1986-87 academic year
Dr. Boleslaw Tolwinski Associate Professor of Mathematics	\$36,000 for the 1986-87 academic year
Dr. Aldo V. Vecchia Assistant Professor of Mathematics	\$32,000 for the 1986-87 academic year

Continuation of Appointment:

Mr. Ravel Ammerman Instructor in Engineering	\$24,500 for the 1986-87 academic year
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RECORD OF PROCEEDINGS

2

Administrative:

Mr. James P. Allen \$45,000 for a twelve-month contract
 Manager of Software Implementation

Additional Information:

Dr. Harry C. Peterson Leave without pay
 Professor of Engineering 1986-87 academic year

Tenure-Track Faculty Positions Added Since April 11, 1986

New Faculty Reporting in August 1986:

Dr. Sam Adams
 Head of the Department of Geology and
 Professor of Geology

Dr. Fred Akl
 Associate Professor of Civil Engineering

Dr. Jerry Higgins
 Associate Professor of Geological Engineering

Mr. David Munoz
 Instructor in Engineering
 (Will change to Assistant Professor upon
 completion of Ph.D. work this summer.)

One additional offer is outstanding in Electrical Engineering

Two additional offers remain: One in Mathematics
 (Computer Science)
 One in Mineral Economics

Dr. Gentry called attention to the Quantitative Evaluation Reports which have been performed at the request of the Board and which were distributed to the Board members

Dr. Gentry announced the appointment of Dr. Sam Adams as Head of the Geology Department. Mr. Henderson asked Dr. Gentry to convey to the members of the selection committee the Board's appreciation for the fine work done by the committee.

Graduate School Admissions. Dr. Romberger reviewed the summary of graduate admissions for each department for fall 1986, compared to the two previous years. Dr. Romberger explained that the admissions procedure for graduate students is different from that for undergraduates. Each department evaluates applicant files and recommends admission or rejection to the Graduate Dean. Their decision is based on space available and their judgment as to the capability of the student to satisfactorily complete the appropriate graduate degree. Applications are accompanied by three letters of recommendation, current transcripts and G.R.E. scores for certain departments.

May 9, 1986

RECORD OF PROCEEDINGS

3

TOEFL results are required of foreign non-English-speaking applicants.

Dr. Romberger went on to say that application materials are collected by the Graduate Office and sent to the department when complete. The file is reviewed by an individual or committee and recommendation is sent to the Graduate School. A letter, and when appropriate financial aid offer, is sent to applicant along with code sheet and other pertinent information. Applicant returns code sheet and responds to financial aid offer, when appropriate. Departments are responsible for maintaining contact with prospective students.

Dr. Romberger informed the Board that Geology and Geophysics remain the most competitive programs for admission as measured by the ratio of students admitted to those rejected. However, these areas are showing a decline in the total number of applications received. Significant growth has occurred in Environmental Sciences, Math and Physics if measured over a two or more year period, while declines are detected in Chemistry, Chemical Engineering, and Mining.

Undergraduate Admissions. Dr. Nyikos introduced Mrs. Mary Pott, Admissions Counselor and Assistant Director, Enrollment Management, who reviewed the April 30, 1986 Admissions Report. Mrs. Pott informed the Board that the number of committed students will be included in the monthly Admissions Reports between now and fall semester 1986 registration.

Mr. Pascoe stated that the CCHE Admissions Standards Committee is scheduled to meet in May and July. The CCHE's Draft Policy Report will be finalized following the July meeting.

New Research Awards. Dr. Romberger reviewed the status of new research awards as of April 28, 1986. He told the Board that an award volume of \$871,074 represents a good month compared to \$680,494 for April 1985. The cumulative award level of \$6,101,260 for FY 1986 is slightly ahead of that of FY 1985 of \$5,817,392. However, the rate of new award volume growth still is insufficient to attain the goal of \$8,000,000 for this fiscal year. An additional factor which should be noted is that most of the new award volume for April consists of add-ons to existing projects; only 30% represents new projects.

Dr. Romberger informed the Board that the proposal activity for the month of April 1986 (18) is approximately the same as that for April 1985 (19). Cumulative for FY 1986 is 191 compared to 150 for FY 1985. Four of the proposals involved new faculty members and seven others involved untenured faculty. He stated that factors affecting sponsored research income were summarized in April and continue to be important.

Monthly Reports. Mr. Scott reviewed the monthly reports as follows: Current Funds Revenues, Expenditures and Other Changes for the Ten Months Ending April 30, 1986; Colorado School of Mines State Appropriated Funding Comparison of FY 1986

RECORD OF PROCEEDINGS

4

to FY 1985 for the ten months ending April 30; Auxiliary and Self-Funded Activities for the ten months ending April 30, 1986; and Time Deposits and Investment Report, April 30, 1986. It is his belief that the School is operating within the revenues projected for the 1986 fiscal year.

Designation of a Gift Fund as a Quasi-Endowment. Mr. Scott informed the Board that from time to time gifts have been received which are undesignated by the donors as to the form in which they are to be held by CSM. One such gift is listed, appended hereto, with a brief description of its nature.

Mr. Scott requested that the Board designate this as a quasi-endowment fund, making it subject to the rules that govern endowments and quasi-endowments, with the understanding that quasi-endowments may be redesignated for other purposes by future actions of the Board.

Motion was made, seconded and approved to designate the Paul F. Bartunek Trust as quasi-endowment fund of the Colorado School of Mines.

Proposed 1986-87 Budget. Mr. Scott stated that the Board is being asked to approve the education and general budget including proposed tuition fees, the spending levels for CSM and CSMF restricted funds, the proposed sponsored research budget, and the auxiliary budgets and the fees necessary to provide those revenues. The Board is being requested to approve the spending percentage for endowed funds in the School and the Foundation for the coming year and to authorize expenditure of those amounts plus unexpended funds from FY 1986

Mr. Pascoe requested information regarding the entities to which the School is related. President Ansell stated that the administration will come back to the Board with a recommendation as to how that information could be provided. Discussion ensued regarding the proposed budget. President Ansell confirmed that the administration is adding faculty at a time when the School is not growing.

The Board unanimously approved the proposed education and general budget including the tuitions and fees, the proposed sponsored research budget, and the proposed auxiliary budgets plus fees to support those services. A spending limit of six percent of the three-year average principal value was adopted for CSM and CSM Foundation endowment funds, and spending authority was granted for these amounts plus the unspent balances for FY 1986. Spending of unendowed restricted funds was authorized, not to exceed balance available.

A copy of the proposed budget is appended hereto.

Sabbatical Leave Requests. Dr. Gentry, in Dr. Golden's absence, informed the Board that the following sabbatical requests were submitted last fall but were not recommended for approval because plans were not final. He is now forwarding them for approval by the Board.

A. R. Brown, Professor of Mathematics
Original appointment to the faculty: 1965-66

RECORD OF PROCEEDINGS

5

On leave the fall semester of the 1979-80 academic year at three-fourths pay. Request is for the spring semester of the 1986-87 academic year at three-fourths pay for the purpose of developing materials for use in the EPICS computing program. Dr. Boes, Head of the Mathematics Department, supports this request.

Frank A. Hadsell, Professor of Geophysics
Original appointment to the faculty: 1961-62
On leave without pay the 1972-73 academic year
Request follows proposal by Dr. Knoshaug, Director of the AI Laboratory, to select an individual to gain expertise to prepare other faculty for rapidly-advancing research in artificial intelligence. During the period of leave Dr. Hadsell would build skills in programming and shell applications and sharing of information with other faculty members through monthly seminars. The request is for the 1986-87 academic year at one-half pay. Dr. Romig, Head of the Geophysics Department, supports this request.

Alexander A. Kaufman, Professor of Geophysics
Original appointment to the faculty: 1977-78
Has not previously been on leave.
Request is for the fall semester of the 1986-87 academic year at one-half pay for the purpose of accepting an invitation to be a visiting professor at the University of Lulea in Sweden. Dr. Romig supports this request.

Annette L. Bunge, Associate Professor of Chemical Engineering and Petroleum Refining
Original appointment to the faculty: 1981-82
Has not previously been on leave.
Request is for the spring semester of the 1986-87 academic year at three-fourths pay for the purpose of accepting a visiting appointment at the University of Utah to study chemical permeation through the skin. Dr. Kidnay, Head of the Chemical Engineering Department, supports this request.

Mr. Schwartzberg commented that two people who have requested sabbatical leaves will remain on the campus. Dr. Gentry stated that he believes these requests are as important as the requests for off-campus sabbatical leaves.

Motion was made, seconded, and unanimously passed to approve the requests for sabbatical leaves for the above-named faculty members.

Preliminary Agenda, Trustees' Annual Conference. Dr. Gentry reviewed the tentative agenda for the Trustees' Conference, which is scheduled for June 26-29, 1986, at the Aspen Lodge near Estes Park, and pointed out that the Board meeting is scheduled for Saturday, June 28, at 1:30 p.m.

RECORD OF PROCEEDINGS

6

Dr. Gentry discussed anticipated curriculum changes which the Board will be asked to consider at the June meeting. Mr. Henderson asked for reports of previous discussions which have been held with regard to the curriculum.

The Board by consensus indicated that it is comfortable with the tentative agenda.

CCHE Report to the Colorado General Assembly on Education Degree Programs. President Ansell referred the Board to the Report and cover letter from Dr. Wilson of the CCHE dated April 21, 1986, which was sent to the Board members. He reminded the Board that the CCHE has been mandated under H.B. 1187 to look at teacher education. Dr. Wilson's letter stated that the Colorado School of Mines is involved only to a limited degree in teacher preparation. However, the one action of the Commission that has direct application to the School of Mines is as follows:

The core curriculum in liberal arts and sciences is a major component of teacher preparation. Too frequently attention has been focused excessively on professional courses and the expanded requirements of major departments. A refocus on the liberal arts and sciences core is needed. The Commission recommends that governing boards direct their institutions to review the undergraduate core program in liberal arts and sciences to assure that students are exposed to a broad range of liberal arts and sciences. The Commission directs the governing boards to report, by June 1, 1987, on their undergraduate core program in liberal arts and sciences and any modifications they have made.

Legislative Report. Dr. Nyikos reviewed Legislative Summary #3 dated May 1, 1986, which includes a discussion on appropriations, the status of the CCHE committees with which Mines is involved, and the status of several house bills which are of interest to CSM.

Geophysics Visiting Committee. President Ansell reviewed the list of proposed members of an External Visiting Committee for the Department of Geophysics as follows:

Robert J. Graebner, Senior Vice President
Geophysical Services, Inc.
Dallas, TX

Cecil H. Green
La Jolla, CA

Howard B. Keck
Los Angeles, CA

Marvin Gearhart, President
Gearhart Industries, Inc.
Fort Worth, TX

May 9, 1986

RECORD OF PROCEEDINGS

7

Robert M. Hamilton, Geophysicist
USGS
Reston, VA

William Harold Ruehle, Chief Geophysicist
Mobil Oil Corp.
New York, NY

Robert W. DeSio
Director of University Relations
IBM
Armonk, NY

Robert F. Ballard, Jr.
Research Geophysicist
U.S. Waterway Experiment Station
Clinton, MS

Vicki Cowart
Geophysicist
Schlumberger Ltd.
Denver, CO

Terrence K. Young
Mobil Research and Development
Dallas, TX

Amor Milton (Red) Olander
Exploration Scientist
Exxon Company USA
Houston, TX

J. Don Thorson
President
Toco Corp.
Newcastle, WY

Roy Shourd
Executive Vice President
Schlumberger Ltd.
New York, NY

Louis C. Pakiser, Jr.
USGS
Denver, CO

The Board unanimously approved the list, noting that it is very impressive.

President Ansell reported that the Advisory Council for the McBride Honors Program visited the campus on April 29.

Ms. Lynch read a letter addressed to the Board of Trustees from Stuart L. Robertson, who will receive his B.S. Degree in Metallurgical Engineering tomorrow, thanking the Board for the scholarship which he received. The letter is appended hereto.

May 9, 1986

RECORD OF PROCEEDINGS

8

Candidates for Degrees. Distribution was made of lists of candidates for degrees as recommended by the regular and graduate faculties.

Upon motion made, seconded and unanimously passed, the candidates whose names appear on the lists appended hereto were approved for degrees on the dates specified, subject to the completion of all academic requirements and continued compliance with school requirements and regulations.

The meeting was adjourned at 3:45 p.m., and the Board went into executive session.


Secretary

May 9, 1986

CSM
BOARD OF TRUSTEES
AGENDA ITEM

Date of Meeting 05-09-86
Item Number 6-6
Presented By Gordon Scott

Subject:

Designation of a gift fund as a quasi-endowment

Background Information:

From time to time gifts have been received which are undesignated by the donors as to the form in which they are to be held by CSM. One such gift is listed, attached, with a brief description of its nature.

It is requested that the Board designate this as a quasi-endowment fund, making it subject to the rules that govern endowments and quasi-endowments, with the understanding that quasi-endowments may be redesignated for other purposes by future actions of the Board.

Action Motion Requested:

Move that the Board of Trustees designate the following named fund as quasi-endowment fund of the Colorado School of Mines:

Paul F. Bartunek Trust

GIFTS TO BE
DESIGNATED QUASI-ENDOWMENTS BY THE
BOARD OF TRUSTEES

Paul F. Bartunek Trust

Provisions of the Trust

The principal be distributed equally to the departments of Physics and Mathematics to be used only for serious students seeking to advance themselves in their respective fields starting in the junior year and including graduate students.

Current Financial Status: \$78,205

Principal Managed by the Massachusetts Fund

Income is being distributed to the Physics and Mathematics Departments

COLORADO SCHOOL OF MINES
RECOMMENDED 1986-1987 BUDGET

May 9, 1986

	<u>STATE APPROPRIATED</u>	<u>SPONSORED RESEARCH</u>	<u>RESTRICTED (CSM & CSMF)</u>	<u>AUXILIARIES</u>	<u>COMBINED</u>
INCOME					
Education and General General Fund	\$ 9,949,291				\$ 9,949,291
Tuition	10,689,846				10,689,846
Other Cash	<u>1,150,000</u>				<u>1,150,000</u>
Sub-Total	\$21,789,137				\$21,789,137
Sponsored Programs		\$5,000,000	\$2,449,474		7,449,474
Auxiliaries				<u>\$4,322,143</u>	<u>4,322,143</u>
TOTAL	<u>\$21,789,137</u>	<u>\$5,000,000</u>	<u>\$2,449,474</u>	<u>\$4,322,143</u>	<u>\$33,560,754</u>
EXPENSE					
Education and General Resident Instruction					
-Faculty	9,227,282 201.2 FTE	1,450,000 31.7 FTE	726,284 15.9 FTE		11,403,566 248.8 FTE
-Support Staff	2,240,331 82.6 FTE	1,793,000 66.1 FTE	182,031 6.7 FTE		4,215,362 155.4 FTE
-Operating Expense	568,990	1,230,000	946,348		2,745,338
Research Development	550,000 7.0 FTE				550,000 7.0 FTE
Museum	66,261 2.3 FTE		342		66,603 2.3 FTE
Administration	1,702,133 41.7 FTE		191,681		1,893,814 41.7 FTE
Student Services	1,055,753 26.8 FTE		38,340		1,094,093 26.8 FTE
Library Oper&Mat'ls	786,520 17.4 FTE		39,541		826,061 17.4 FTE
Data Processing Oper	1,024,035 19.6 FTE		4,963		1,028,998 19.6 FTE
-Micro Computers	180,000				180,000
Physical Plant Oper	2,427,437 77.0 FTE				2,427,437 77.0 FTE
Utilities	1,328,678				1,328,678
Capital Outlay		527,000	119,125		646,125
Financial Aid (See Note)	350,000				350,000
Enrollment Contingency	267,246				267,246
Reserve	<u>14,471</u>				<u>14,471</u>
Sub-Total Ed & Gen	\$21,789,137	\$5,000,000	\$2,248,655		\$29,037,792
Restricted (012 Fund)			113,558		113,558
Auxiliaries			<u>87,261</u>	<u>3,491,950</u>	<u>3,491,950</u>
TOTAL	<u>\$21,789,137</u> 475.6 FTE	<u>\$5,000,000</u> 97.8 FTE	<u>\$2,449,474</u> 22.6 FTE	<u>\$3,491,950</u>	<u>\$32,643,300</u> 596.0 FTE

NOTE: Not included above are the following amounts of student aid/loans: CSMF(012)=\$1,782,041; State/Federal=\$1,540,325

COLORADO SCHOOL OF MINES
RECOMMENDED 1985-86 BUDGET

June 14, 1985

	<u>STATE APPROPRIATED</u>	<u>SPONSORED RESEARCH</u>	<u>RESTRICTED (CSM & CSMF)</u>	<u>AUXILIARIES</u>	<u>TOTAL COMBINED</u>
INCOME					
Education and General General Fund	\$ 9,244,246				\$ 9,244,246
Tuition	10,103,977				10,103,977
Other Cash Incl. Roll-Forward	<u>1,934,000</u>				<u>1,934,000</u>
Sub-Total	\$21,282,223				\$21,282,223
Sponsored Programs		\$ 5,800,000	\$ 2,232,562		8,032,562
Auxiliaries				\$ 5,088,281	5,088,281
TOTAL	<u><u>\$21,282,223</u></u>	<u><u>\$ 5,800,000</u></u>	<u><u>\$ 2,232,562</u></u>	<u><u>\$ 5,088,281</u></u>	<u><u>\$34,403,066</u></u>
EXPENSE					
Education and General Resident Instruction					
-Faculty	8,549,990 191.5 FTE	1,798,000 40.3 FTE	523,983 11.7 FTE		10,871,973 243.5 FTE
-Support Staff	2,149,598 81.5 FTE	2,001,000 75.9 FTE	39,160 1.5 FTE		4,189,758 158.9 FTE
-Operating Expense	521,560	1,484,800	1,059,289		3,065,649
Research Development	600,000 2.5 FTE				600,000 2.5 FTE
Museum	64,504 2.3 FTE		245		64,749 2.3 FTE
Administration	1,512,083 34.2 FTE		44,726		1,556,809 34.2 FTE
Student Services	1,015,965 31.5 FTE		28,313		1,044,278 31.5 FTE
Library Oper. & Mat'l's	764,725 17.4 FTE		35,025		799,750 17.4 FTE
Data Processing Oper.	908,775 18.6 FTE		4,960		913,735 18.6 FTE
-DP Equip/Micro's/ Payments	879,000		42,000		921,000
Physical Plant Oper.	2,354,145 76.9 FTE				2,354,145 76.9 FTE
Utilities	1,328,678				1,328,678
Capital Outlay		516,200	32,640		548,840
Financial Aid (See Note)	129,000				129,000
Enrollment Contingency	206,200				206,200
Unallocated Roll- Fwd from 84-5	298,000				298,000
Sub-Total Ed. & Gen.	<u>\$21,282,223</u>	<u>\$ 5,800,000</u>	<u>\$ 1,810,341</u>		<u>\$28,892,564</u>
Restricted (012 Fund)			374,841		374,841
Auxiliaries			47,380	4,151,462	4,198,842
TOTAL	<u><u>\$21,282,223</u></u> 456.4 FTE	<u><u>\$ 5,800,000</u></u> 116.2 FTE	<u><u>\$ 2,232,562</u></u> 13.2 FTE	<u><u>\$ 4,151,462</u></u>	<u><u>\$33,466,247</u></u> 585.8 FTE

NOTE: Not included above are the following amounts of student aid/loans: CSMF = \$1,203,220; State/Federal = \$1,696,545

7EXP3 05/08/86

1986-87 EXPENSE BUDGET - Education and General

	1985-86 BUDGET	86-7 RECOMMENDED BUDGET	CHANGE	
Committed Faculty				
Avg Compensation	44,647	45,670	3.0%	Continuing
FTE	193.5	209.7	16.2	
Total Compensation	8,639,284	9,576,972		
Planned Adtn'l Faculty				
Avg Compensation				
FTE		0.0		
Total Compensation				
Faculty Charge-outs				
FTE	-2.0	-8.5	-6.5	
Total Compensation	-89,294	-349,690		
Admin Faculty				
Avg Compensation	44,400	46,067	3.0%	Continuing
FTE	34.8	34.1	-0.7	
Total Compensation	1,545,106	1,570,874		
Classified Staff				
Avg Compensation	26,746	27,887	4.3%	
FTE	181.4	184.3	2.9	
Total Compensation	4,851,680	5,139,620		
Graduate Assistants				
Avg Compensation	27,167	27,958	2.9%	
FTE	31.2	32.7	1.5	
Total Compensation	847,599	914,237		
Hourly				
Avg Compensation	10,392	10,672	2.7%	
FTE	15.0	16.3	1.3	
Total Compensation	155,887	173,951		
Operating Expense/Travel	1,515,393	1,672,088	156,695	
Library Books/Journals	225,690	225,690	0	
Utilities	1,300,912	1,328,678	27,766	
Micro Computer Program	120,000	180,000	60,000	
Research Development	600,000	550,000	-50,000	
Financial Aid	129,000	350,000	221,000	
Capital Outlay	0	0	0	
Institutional Improvement	460,000	0	-460,000	
Recruitment	150,000	175,000	25,000	
ADP Equip Payments	299,000	0	-299,000	
Enrollment Contingency	0	267,246	267,246	
Reserve	0	14,471	14,471	
TOTAL EXPENSE BUDGET	20,750,257	21,789,137		
FTE	453.9	468.6		

NOTE: Due to reductions in General Fund and Other Cash, the 1985-86 expense budget, as shown above, has been reduced. Specifically, the enrollment contingency has been eliminated, and the utilities budget has been reduced by \$27,766.

EDUCATION & GENERAL INCOME CALCULATION 1986-87

7INC3 05/08/86

	ORIGINAL 1985-86 BUDGET	CURRENT 1985-86 BUDGET	RECOMMENDED 1986-87 BUDGET	
GENERAL FUND:				
Gen Fund/Resident	\$4,792	\$4,620	\$4,671	
Resident FTE	1,929	1,929	2,130	
GENERAL FUND	\$9,244,246	\$8,911,875	\$9,949,291	Draft LB +11.6%
OTHER CASH:				
Incl Ind. Cost of 1,100,000	\$1,636,000	\$1,301,755	\$1,150,000	-11.7%
TUITION:				
Nonresident Tuition:				
FT Headcount: Fall	720	760	743	
Spg	663	703	684	
Total FT Hdct	1,383	1,463	1,427	
NR Tuition Rate (Sem)	\$3,736	\$3,736	\$3,998	+7.0%
NR FT Tuition Income	\$5,166,888	\$5,467,201	\$5,705,146	
PT & Sum NR Cr Hrs	1,939	2,017	1,766	
NR Credit Hour Rate	\$249	\$249	\$267	+7.0%
NR PT&Sum Tuition Income	\$482,811	\$502,153	\$471,522	
Resident Tuition:				
FT Headcount: Fall	1,575	1,543	1,500	
Spg	1,457	1,428	1,369	
Total FT Hdct	3,032	2,971	2,869	
Res Tuition Rate (Sem)	\$1,335	\$1,335	\$1,442	+8.0%
Res FT Tuition Income	\$4,047,720	\$3,966,766	\$4,137,098	
PT & Sum Cr Hrs	6,885	6,747	6,190	
Res Credit Hour Rate	\$89	\$89	\$96	+8.0%
Res PT&Sum Tuition Income	\$612,765	\$600,507	\$594,240	
Assessed Tuition Income	\$10,310,184	\$10,536,627	\$10,908,006	
Estimated Shrinkage @ 2%	(\$206,207)	\$0	(\$218,160)	
EXPECTED TUITION COLLECTION	\$10,103,977	\$10,536,627	\$10,689,846	+1.4%
TOTAL EDUC & GENERAL INCOME	\$20,984,223	\$20,750,257	\$21,789,137	+5.0%

ENROLLMENT DATA (Includes Non-Degree): @ 100%					
FALL HEADCOUNT:	85-6 EST	86-7 EST	FISCAL YR FTE:	85-6 EST	86-7 EST
Undergraduate	2,066	1,893	Undergrad	2,239.0	2051.5
Graduate	692	787	Grad	511.6	566.8
TOTAL	2,758	2,680	TOTAL	2,750.6	2618.3
Resident	1,929	1,892	Resident	1,852.1	1784.3
Nonresident	829	788	Nonresid	898.5	834.0

Proposed
TUITION AND FEES
FY 1986-87

Tuition and fees at CSM are kept at a minimum, consistent with the cost of instruction and the amount of State funds appropriated to the School.

All prices are effective June 1986 and are subject to change without notice.

TUITION

Academic and Field Courses

<u>Semester Hours</u>	<u>Resident</u>	<u>Nonresident</u>
9.5 & over	\$1,442	\$3,998
8.5 - 9.0	864	2,403
7.5 - 8.0	768	2,136
6.5 - 7.0	672	1,869
5.5 - 6.0	576	1,602
4.5 - 5.0	480	1,335
3.5 - 4.0	384	1,068
2.5 - 3.0	288	801
1.5 - 2.0	192	534
.5 - 1.0	96	267

The above are applicable to all academic periods and to both graduate and undergraduate courses.

Other Courses and Programs

Extended Studies - \$250 per credit hour

Executive Program Mineral Economics - \$11,000 (includes fees)

Intensive English for International Students:

	<u>Req. Semester</u>	<u>Summer Session</u>
EN 01	\$2,088	\$1,605
EN 02	1,252	1,070

Graduate Student Notes

All on-campus graduate students are expected to enroll for a minimum of 15 semester hours of course work and/or thesis each regular semester.

Students employed on a full-time basis outside the School are required to enroll for a minimum of 3 semester hours each regular semester. Evidence of employment must be filed with the Graduate School each semester.

Students doing thesis research in the summer should register for a minimum of 3 semester hours the first week after spring Commencement.

FEES

Payment of fees entitles students to a ticket to all athletic events; subscriptions to both the Oredigger, the weekly newspaper published by students, and the Prospector, the student yearbook; use of the Student Health Center and Student Center; and participation in student activities.

The Associated Students fee is administered by the Student Council in financing the Oredigger, the Prospector, the band, the chorus, and Interfraternity Council, Barb Council and the student organizations. Budgets for these publications and organizations are set at the beginning of the fall semester by the Student Council.

Regular Semester (Fall/Spring)

During a regular semester, students taking less than 6.5 credit hours are not required to pay student fees. Any such student, however, wishing to take part in student affairs and receive student privileges may do so by paying full semester fees.

All degree students carrying 6.5 or more credit hours must pay full student fees as follows:

Health Center*	\$ 25.00
Associated Students	17.00
Athletics	20.00
Student Center	<u>55.00</u>
Total	\$117.00

* An optional medical insurance program is also available. See Student Health Plan below.

In addition to the above fees, Intensive English Students also pay a \$25 application fee and a \$90 activity fee.

Nondegree students are not required to pay student fees. Should they wish to receive any of the student privileges provided by fee payment, they may do so by paying full semester (or session) fees. Medical insurance may be purchased without paying the other fees.

Summer Session

Academic Courses

Health Center	\$ 15.50
Student Center Fee	<u>27.50</u>
Total	\$ 43.00

Thesis Research (if on campus)

Health Center	\$ 15.50
Student Center	<u>27.50</u>
Total	\$ 43.00

Intensive English

Health Center	\$ 21.00
Student Center	27.50
Activities	60.00
Application	<u>25.00</u>
Total	\$133.50

Field Courses/Graduate Field Trips

On-Campus: Health Center \$ 8.00

Off-Campus:

Arrangements and payment for transportation, food, lodging and other expenses must be made with the department concerned. (Geology Field Camp costs - including food, maps, camping fee and Brunton compass - are \$650.)

Miscellaneous:

Orientation (New Students) \$ 3.50

Deposits (cover the cost of supplies consumed, with any unused balance refunded.)

Chem Lab (1st time reg.) \$ 15.00
Plane Surveying 50.00

Graduation (includes theses binding and other expenses)

Bachelors \$ 25.00
Professional Engineers 25.00
Masters 100.00
Doctors 100.00

Graduate Studies Support 1500.00
(optional for sponsored students)

Student Health Plan (optional for all students)

A medical insurance program is available to all students, both degree and nondegree, who request coverage. An election to accept/waive this insurance must be made at the time of registration. Costs are as follows:

Fall Semester \$
Spring Semester (provides
coverage through August)
Summer Session

Note: Health Plan rates are
under negotiation and will be
provided in July.

Arrangement can be made for coverage of spouse and/or children. The insurance carrier should be contacted directly. The annual fee for coverage is:

Spouse \$
Spouse and Child(ren)
Child(ren) Only
Optional Maternity

Proposed
ROOM AND BOARD CHARGES
FY 1986-87

AGENDA ITEM 6-C

<u>Academic Year</u>	PRESENT RATE PER STUDENT 1985-86	PROPOSED RATE PER STUDENT 1986-87		
<u>Residence Halls*</u>				
Bradford, Randall, Morgan and Thomas				
Double Room	\$1500	\$1575		
Single Room	1600	1675		
Double Room as Single	-	1775		
Twin Towers				
Double Room	1750	1840		
Single Room	1850	1940		
Double Room as Single	-	2040		
<u>Meal Plans, Academic Year*</u>				
19-meal Plan	1325	1400		
15-meal Plan	1225	1300		
10-meal Plan	1150	1245		
Residence Hall Activity Fee	10	10		
<u>Field Session</u>				
Randall Hall Room Only				
Double Room	290	305		
Single Room	315	325		
<u>Summer Session</u>				
Randall Hall*				
Double Room	385	405		
Single Room	415	435		
Twin Towers*				
Double Room	N/A	N/A		
Single Room	N/A	N/A		
<u>Meal Plans, Summer Session*</u>				
15-Meal Plan	325	325		
10-Meal Plan	305	305		
<u>Prospector Village (monthly rate)</u>				
Married Student Apartments				
1-Bedroom	270	285		
2-Bedroom	295	310		
3-Bedroom	320	335		
Furnished	Add 30	Add 30		
<u>Mines Park (monthly rate)</u>				
			Grad	
			<u>Stu</u>	<u>Fac</u>
Buffet Apartment	270	util. included	285	300
1-Bedroom Apartment	360	" "	380	400
2-Bedroom Apartment	420	" "	440	470
2-Bedroom House (37,38,39)	460	" exclud. water	485	510
2-Bedroom House (25,26,27,28)	545	" exclud. water	575	610
2-Bedroom House (30,31-34,35)	395	+ all utilities	415	440
3-Bedroom House	445	+ all utilities	470	500
3-Bedroom House (29)	505	+ all utilities	530	580
Residents are not responsible for irrigation of yards.				

* Residence Hall students must choose one of the available meal plans.

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MAY 9, 1986

PROPOSED BUDGET SUMMARY

1962 BOND ISSUE
 1966 BOND ISSUE
 TWIN TOWERS
 FOR FISCAL YEAR 1986-87

	<u>BUDGET 1985-86</u>	<u>PROPOSED BUDGET</u> 86-87
<u>INCOME</u>		
Residence Halls	\$ 574,500	\$ 472,940
Student Center	284,076	325,760
Dining Hall	905,000	734,160
Prospector Village	254,000	258,770
Mines Park	178,200	196,740
Twin Towers	<u>424,750</u>	<u>473,740</u>
TOTAL INCOME	\$2,620,526	\$2,462,110
<u>EXPENSE</u>		
Residence Halls	255,755	273,994
Student Center	360,506	338,909
Dining Hall	751,505	559,235
Prospector Village	142,030	192,916
Mines Park	117,430	130,541
Twin Towers	<u>178,630</u>	<u>220,015</u>
TOTAL EXPENSE	\$1,805,856	\$1,715,610

*Excess Revenues shall be applied to bond indebtedness.

Debt Service for Fiscal year 1986-87 = \$650,000; Renew and Replacement = \$130,000.
 1985-86 fund balance = \$33,500.

MAY 9, 1986

PROPOSED BUDGET SUMMARY
STATE RENTAL PROPERTIES
FOR FISCAL YEAR 1986-87

	<u>BUDGET 1985-86</u>	<u>PROPOSED BUDGET</u> 86-87
<u>INCOME</u>	\$ 30,000	\$ 35,000
<u>EXPENSE</u>	19,555	17,000

MAY 9, 1986

PROPOSED BUDGET SUMMARY
HEALTH AND ACCIDENT
FOR FISCAL YEAR 1986-87

	<u>BUDGET 1985-86</u>	<u>PROPOSED BUDGET</u> 86-87
<u>INCOME</u>	\$ 107,865	\$ 109,575
<u>EXPENSE</u>	102,581	109,575

MAY 9, 1986

PROPOSED BUDGET SUMMARY
ATHLETIC ASSOCIATION
FOR FISCAL YEAR 1986-87

	<u>BUDGET 1985-86</u>	<u>PROPOSED BUDGET</u> 86-87
<u>INCOME</u>	\$ 142,850	\$ 137,080
<u>EXPENSE</u>	142,850	137,080

Note: As in the past, the above figures exclude the Administration Allocation.

MAY 9, 1986

PROPOSED BUDGET SUMMARY
SPONSORED RESEARCH
FOR FISCAL YEAR 1986-87

	<u>BUDGET 1985-86</u>	<u>PROPOSED BUDGET</u> <u>86-87</u>
<u>INCOME</u>	\$5,800,000	\$5,000,000
<u>EXPENSE</u>	5,800,000	5,000,000

MAY 9, 1986

PROPOSED BUDGET SUMMARY
ASSOCIATED STUDENTS
FOR FISCAL YEAR 1986-87

	<u>BUDGET 1985-86</u>	<u>PROPOSED BUDGET</u> <u>86-87</u>
<u>INCOME</u>	\$ 133,579	\$ 129,736
<u>EXPENSE</u>	133,579	108,041

Note: As in the past, the above figures exclude the Administration Allocation.

MAY 9, 1986

PROPOSED BUDGET SUMMARY
CSM PUBLICATIONS
FOR FISCAL YEAR 1986-87

<u>PROPOSED BUDGET</u>	<u>BUDGET 1985-86</u>	<u>INCOME</u>	<u>EXPENSE</u>
86-87			
\$ 360,117	\$ 498,855		
351,532	431,474		

MAY 9, 1986

PROPOSED BUDGET SUMMARY
SPECIAL PROGRAMS
FOR FISCAL YEAR 1986-87

	<u>BUDGET 1985-86</u>	<u>PROPOSED BUDGET</u> 86-87
<u>INCOME</u>	\$ 600,000	\$ 175,000
<u>EXPENSE</u>	600,000	145,118

MAY 9, 1986

PROPOSED BUDGET SUMMARY
GREEN CENTER
FOR FISCAL YEAR 1986-87

<u>PROPOSED BUDGET</u>	<u>BUDGET 1985-86</u>
86-87	
\$ 82,000	\$ 85,600
80,325	85,349
	<u>EXPENSE</u>
	<u>INCOME</u>

Note: As in the past, the above figures exclude the Administrative Allocation.

MAY 9, 1986

PROPOSED BUDGET SUMMARY
RESEARCH REVOLVING FUND
FOR FISCAL YEAR 1986-87

<u>PROPOSED BUDGET</u>	<u>BUDGET 1985-86</u>
86-87	
INCOME	\$ 16,537
EXPENSE	13,208
	\$ 2,550

Note: As in the past, the above figures exclude the Administration Allocation.

MAY 9, 1986

PROPOSED BUDGET SUMMARY
SELF FUNDING ACTIVITIES
FOR FISCAL YEAR 1986-87

	<u>BUDGET 1985-86</u>	<u>PROPOSED BUDGET</u> <u>86-87</u>
<u>INCOME</u>	\$ 857,753	\$ 828,975
<u>EXPENSE</u>	817,010	825,119

CLASS OF 1986
GRADUATING SENIORS
May 10, 1986

BACHELOR OF SCIENCE
(Mining Engineering)

Glenn Leslie Anderson
James John Brady
Elwood MacLain Burriss
Gregory Booth Cederstrom
George Gunnell Conger, Jr.
Gregory Steven Erickson
Frank George Feero, Jr.
*Michael Frederick Foutz
Jesse Richard Gage
Kurt Frederic Hollberg
John Huston Ingle
Christopher Edward Kensel
Paul Kincaid Koppana
James Ewell McDonald
Douglas Richard Moore
Jeffrey Alan Osborn
York Hinshaw Robertson
Peter Ralph Dieter Schultze-Rhonhof
Howard Albert Steidtmann

BACHELOR OF SCIENCE
(Metallurgical Engineering)

David William Barber
Gerald Lee Berry, Jr.
Gianluca Beverini
Gilbert Francis Braun
Christine Mae Claypool
Phillip LeRoy Dalke
Mario Ermirio De Moraes
Jeffrey Dyck
Philip Stuart Glynn
Elizabeth Ann Ignacio
Juan Luis Milian
Paul Arnold Oberly
Paul Timothy Oldland
James Pontolillo
Jon Stephen Price
Stuart LaVerne Robertson
Douglas Mervin Symons

BACHELOR OF SCIENCE
(Geological Engineering)

Dean Frederick Aker
Cynthia Marie Anderberg
Michael Elton Anderson
Daniel Arteaga
Deborah Caren Asher
Helena Christine Cusworth
Dalana Lyn Daley
Patrick Duane Friesen
James David Gill
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*Mark Gerard Kittridge
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Arthur Heinrich Menzer
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Mario A. Monaco T
Kevin Lynn Mosser
Joseph Fred Mueller, Jr.
Eric Michael Mundhenke
*Greg David Naugle
Jan Michael Nietzer
Ronald Oribio
Stephen Edward Parker
Lewis Thompson Putman, Jr.
Mark Daniel Roberts
Sheila Jo Roberts
Daniel Norman Shedroff
Hans Stumpp
James Patrick Werkmeister
Loren Todd Zweig

PROFESSIONAL DEGREE
(Geological Engineer)

*Mark Gerard Kittridge

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GRADUATING SENIORS
May 10, 1986

BACHELOR OF SCIENCE
(Petroleum Engineering)

Rachmat Adiwajanto Abdoellah
Grant Owen Alexander
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Christopher Louis Beato
Richard Wallace Berk
Matthew Gary Bradford
Michael Roy Cagle
David Joseph Camille
Mark Anthony Degenhart
Lewis Denton Dennis
Kenneth Ray Dickerson
Eric Wayne Dunker
Eric Dyson Emerson
William Winfrid Fleckenstein
Michael Sheldon Gebb
John Malcolm Gilchrist
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Melvin Clayton Haun
James Michael Hoerner
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Albert Bashir Khleif
John Patrick Kleckner
Hun Joo Kwon
Gail Anne LaRocque
Joseph Richard Long
Scott Allen Malson
Todd William McGovern
Scott Earl McKinster
John Clark McMullen
Keith Edward Middleton
David Donald Millage
*Mark Gerard Miller
Michael Robert Morgan
Mark David Mueller
James Frederic Newman
Kirk Morrill Nuzum
Timothy Michael O'Connell
Robert Palermo
Daniel Arthur Pecore

BACHELOR OF SCIENCE
(Petroleum Engineering) Continued

James Brian Plouf
David Christopher Provan
Francisco Pulido
Pasquale Riggi
Jeffrey Gerard Sanders
William Arthur Savage
Scott Alan Schleining
John Randall Shaw
Julia Ann Shultz
Rex Eugene Sloan
Mary Alice Snyder
John Martin Speidel
Mark Don Swisher
Steven Jay Van Howe
Trang Quynh Vu
Paul Michael Welch
Charles Philip Willis
Shane Bret Wischer
Gregory Edward Wolfe
Chris Rolland Wonderly
Pamela Joy Woods

BACHELOR OF SCIENCE
(Chemical & Petroleum-Refining Engineering)

Robert Kenneth Anzick
Melani Naomi Arai
Darrin Rhea Baumunk
Randal Philip Beauvais
Scott Anthony Bechtel
David Joseph Becker
Allan Bennett
Jennifer Gail Blasi
Craig E. L. Bordon
Margaret Jean Brannigan
Kathryn Ellen Buess
*Todd Robert Carroll
Suk-Bae Cha
Cho Nai Cheung
John David Culbertson
David Charles Cutter
Timothy Dand Davis

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GRADUATING SENIORS
May 10, 1986

BACHELOR OF SCIENCE (Continued)
(Chemical & Petroleum-Refining Engineering)

Alexander Brian Epstein
Janis Dale Evans
Christopher Lee Geisler
Jon Willard Haas
Michael John Hager
Michael James Hawkins
David Paul Haynes
Steven Rey Hughes
Gregory Eugene Kishiyama
Christopher Scott Kluth
Ali Mohammed Lakkis
R. S. Timothy Lomas
Kernan Joseph McHugh
Stephen Joseph Nieczkoski
Paul Nelsen Nornes
Michael Roy Oliver
Richard Bret Rhinesmith
Susan J. Riebe
Vincent Damien Riley
Rory Lee Sale
Thomas James Satkowski, III
Andrew Raymond Stegon
Faith Elizabeth Sublett
Karen Leslie Torres
Jeffrey David Uhland
John Brian Weingardt
Jeffrey Allan Wiemelt
Robert Marcus Zimmerman

BACHELOR OF SCIENCE
(Geophysical Engineering)

Robert James Burnstad
Gregory Raymond Cahill
Clark Turner Capes
Laura Ann Corder
John David Crabtree
Peter Alfred Crisi
William Stone Davis, III
Kirsten Lee Derr
Brian Paul Doty
Daniel Patrick Emmer

BACHELOR OF SCIENCE
(Geophysical Engineering) Continued

John Andrew Geesen
Thomas Goebel
*Terrell Lane Hastings
Justin Paul Hedley
Gregg Stuart Hofland
David Bryan Howard
Joe Allen Intermill, III
Brec Scott Isaacson
Steven Paul Jeffords
Greg Michael Jimenez
Kathryn Serena Kierein
Patrick Chris Kingsley
Curtis Jay Kruse
Julie Kathleen McDonald
Patrick John McGee
Thomas Andrew Meine
Hugh Bennett Miller
Anne-Marie L. Moos
Kyle Arthur Moreau
*Greg David Naugle
Kelly Ann Noonan
Timothy Lee Nowfel
Adina Nystrom
Loren Robert Perlan
Timothy Petitclerc
Nathaniel Edward Putzig
Mark Cameron Quakenbush
Jean Marie Rickert
Duncan Weeks Riley, Jr.
Scott Allan Stephens
Joseph Frederick Titzer
Clayton Edmund Tong
Clark Harold Vera
James William Vonderwahl
Andrew Leigh Wachob
Anthony Joseph Wernsman
Erik Christian Westman
Brian Richard Williams
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Robert Baxter Wilson
Steven Clark Wood
James Michael Young
Jeremy John Zimmerman

CLASS OF 1986
GRADUATING SENIORS
May 10, 1986

PROFESSIONAL DEGREE
(Geophysical Engineer)

Richard Patrick Smith

BACHELOR OF SCIENCE
(Mineral Engineering Chemistry)

*Todd Robert Carroll
David H. Cline
Debra Arliene Feakes
Marta Kay Green
Kristina Anne Huyck
Suzanne Michele Jones
Patrick Kevin Nolan
Patricia Mary Palmer
John Daniel Parker
Nicole Alexis Rutland
Kristal Ann Wolfe

BACHELOR OF SCIENCE
(Mineral Engineering Mathematics)

Patrick Weldon Fulghum
Joseph Paul Gance
Julianna M. Gilmore
*Terrell Lane Hastings
Bryan Joseph Johns
David Eugene Jones, II
Lanny Dean Kness
Michele Kogl
Mitchell Shawn Mather
Dawna Lynn Measner
Charles Hansford Murray
Janeen Kay Smith
John Leo Stevens
Loren Myles Sylvan
Sandra Kay Walters
Paula Lee Werschky
William Dean Yearous

BACHELOR OF SCIENCE
(Engineering Physics)

Stephen Collins
Martin Shawn Day
James M. Houston

BACHELOR OF SCIENCE
(Engineering Physics) Continued

Bradley Michael Melnick
Lynnette Marie Mobley
Peggy Sue Mott
Tamara Marie Rupert
Bradley Dee Sailer
Harry Jay Simpson
Lin Jay Simpson
Barbara Smetana
Dawn Marie Stevens
Dean Quentin Volk
Lisa Marie Wagner
Robert Michael Yandrofski

BACHELOR OF SCIENCE
(Engineering)

Don P. Arbuckle
Timothy Paul Boettcher
Lawrence Roger Clark
Stuart Ray Cupp
Kenneth Walter Curtis, III
Sandra Diane Dalvit
Sean Flanagan
*Michael Frederick Foutz
Richard D. Hammond
James Scott Hass
Brenda Suzanne Henderson
Thomas Michael Kreutz
Patrick David Kropp
Richard Scott Lewis
Kirk Arthur Lindahl
Randy Lee Mitchell
David Scott Mohr
Bruce Lawrence Norquist
Steven D. Oshel
Roger Dale Peterson
Francis Paul Pink
Mark Phillip Post
Mark Edward Price
David Scott Rosener
Anthony Richard Rossi
Peter Paul Scott
Noelle Renee Sears
Robert Curtis Soares
Andrew John Spear
John William Stinson

**CLASS OF 1986
GRADUATING SENIORS
May 10, 1986**

**BACHELOR OF SCIENCE
(Engineering) Continued**

**Kevin Robert Swaving
John Patrick Tiernan
Stephanie Ellen Turner
William Harley Underhill
Donald Eber Whitehurst
David Alan Williams
Deidre Ann Witherell
Earl Benjamin Wolfe
Eric Paul Zeller**

**CLASS OF 1986
GRADUATING SENIORS
June 21, 1986**

**BACHELOR OF SCIENCE
(Metallurgical Engineering)**

Edwin Michael Hall

**BACHELOR OF SCIENCE
(Geological Engineering)**

Richard Alfred Weiss

**BACHELOR OF SCIENCE
(Chemical & Petroleum-Refining Engineering)**

**Jean Christie Andresen
Liselotte Funcken Bradford
Suzanne Marie Lewis
Ryan Douglas Nassimbene
Kevin John Shimoda
James Darwin Spencer
William Dean Yearous**

**BACHELOR OF SCIENCE
(Geophysical Engineering)**

**David Ryland Greene
Jane Lynne Hallenbeck
Julye Ann Nugent**

**BACHELOR OF SCIENCE
(Mineral Engineering Mathematics)**

David Allen Tabaska

**BACHELOR OF SCIENCE
(Engineering Physics)**

**David Arthur Fleming
Jody Bob Niesen**

CLASS OF 1986
GRADUATING SENIORS
August 16, 1986

BACHELOR OF SCIENCE
(Mining Engineering)

Patrick Frank Daniels

BACHELOR OF SCIENCE
(Metallurgical Engineering)

Walter E. Mata

BACHELOR OF SCIENCE
(Geological Engineering)

Andree Kamajaya
Juan Carlos Rivera-Montes

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(Petroleum Engineering)

Anne Elisabeth Charlap
John Patrick Malone
Daniel Jeffrey Pratt
Samuel Anthony Schauer

BACHELOR OF SCIENCE
(Chemical & Petroleum-Refining Engineering)

Margarita Ilene Benson
Marilyn Kay Ellison
Alex Lightning
Warren Taylor Maierhofer
Hue Thanh Phan

BACHELOR OF SCIENCE
(Geophysical Engineering)

Vaughn Leslie Ball
Kristin Rose Westwater
Michael Erik Wotovitch

BACHELOR OF SCIENCE
(Mineral Engineering Mathematics)

David Paul Haynes
Robert Lynn Nigh

BACHELOR OF SCIENCE
(Engineering)

Teresa Maria Taylor
Daniel Nelson Wood

**CLASS OF 1986
GRADUATING SENIORS
August 22, 1986**

**BACHELOR OF SCIENCE
(Petroleum Engineering)**

**Andrew Joseph Bond
Gregory Francis Piper
Michael William Schmidt
Lawrence Peter Stoiber, Jr.
Bradley Scott Wiest**

04/24/86
Final List

MASTER OF ENGINEERING

MASTER OF SCIENCE

MAY 10, 1986

MINING ENGINEERING DEPARTMENT

Matthew J. Hrebar, III, Acting Department Head

Master of Science
(Mining Engineering)

Scott Murdock Brown
Ruth Virginia Cousins
Jonny L. Gent
Mark E. Kuchta

Salt Lake City, Utah
Shawnee Mission, Kansas
Aurora, Colorado
Golden, Colorado

Master of Science
(Mine Health and Safety)

Anne Therese Albers
Robert Roy Stein

Denver, Colorado
Uniontown, Pennsylvania

METALLURGICAL ENGINEERING DEPARTMENT

Dr. William D. Copeland, Department Head

Master of Science
(Metallurgy)

David E. Bunnell
Tim R Vaughan

Westminster, Colorado
Colorado Springs, Colorado

Master of Science
(Metallurgical Engineering)

Michael G. Burns
James D. Cotton
Thomas R. Muth
Michael Stephen Nagorka
Roger A. Nichting
Ulises A. Palma Ch.
Diane Lynn Steinbrunner

Houston, Texas
Licking, Missouri
Elko, Nevada
Parker, Colorado
Peoria, Illinois
Lima, Peru
College Station, Texas

GEOLOGY DEPARTMENT

Dr. Gregory S. Holden, Acting Department Head

**Master of Engineering
(Geological Engineer)**

**Souad N. Al-Azzawi
Fahad S. Al-Shagra
Khalil Hikmat Nasser**

**Baghdad, Iraq
Baghdad, Iraq
Beirut, Lebanon**

**Master of Science
(Geology)**

**Lise Brinton
Mark A. Chapin
Barbara J. Fillmore
Bruce D Kay
Dieter Karl Letsch
Matthew A. Reich
Robert L. Stites**

**Denver, Colorado
Golden, Colorado
Evergreen, Colorado
Brisbane, Australia
Torrance, California
Albany, New York
Denver, Colorado**

**Master of Science
(Geological Engineering)**

Dale M. Baures

Markesan, Wisconsin

PETROLEUM ENGINEERING DEPARTMENT

Dr. Craig W. Van Kirk, Department Head

**Master of Engineering
(Petroleum Engineer)**

**Michael George Decker
Richard Forrest McClure**

**Aurora, Colorado
Jerome, Idaho**

**Master of Science
(Petroleum Engineering)**

Carsten Slot-Petersen

Birkerod, Denmark

**CHEMICAL AND PETROLEUM-REFINING ENGINEERING DEPARTMENT
Dr. Arthur J. Kidnay, Department Head**

**Master of Science
(Chemical and Petroleum-Refining Engineering)**

**Mark Stephen Bourrie-
awarded posthumously**

Aurora, Colorado

Kurt J. Elsner

Cherry Hill, New Jersey

Patrick Lamey

Billings, Montana

Tien Hung Nguyen

Denver, Colorado

Lisa Henthorne Rowley

Poplar Bluff, Missouri

**GEOPHYSICS DEPARTMENT
Dr. Phillip R. Romig, Jr., Department Head**

**Master of Science
(Geophysics)**

Kidane Araya

Adi-Keyih, Ethiopia

Steven Wayne Cable

Plainfield, Illinois

David Marc Dickinson

Ardmore, Oklahoma

William Joseph Domoracki

Cicero, New York

Karl Kenneth Eisenmenger

Louisville, Kentucky

William F Holden

Denver, Colorado

Gregory Robert Johnson

St. Paul, Minnesota

David Charles Merkel

Golden, Colorado

Thomas J. O'Rourke

Augusta, Georgia

Claudia Ann Rebne

Arvada, Colorado

Robert Dean Shank

Encino, California

Stewart Gene Squires

Garden Grove, California

Carlos Alberto Penas Varela

Caracas, Venezuela

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(Geophysical Engineering)**

Doria Lee Kutrubes

Richmond, Virginia

Michael H. Powers

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Master of Science
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Thomas P. Yavaraski

Chicago, Illinois

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(Mathematics)

Lloyd E. Best Jr.
Richard Lee Crabtree

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Grand Junction, Colorado

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Dr. Franklin Schowengerdt, Department Head

Master of Science
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Francis James Wilkinson III

Milwaukee, Wisconsin

MINERAL ECONOMICS DEPARTMENT
Dr. John A. Cordes, Department Head

Master of Science
(Mineral Economics)

Richard Martin Ratliff
Michael Thomas Tapia
Leon Tarr
Rafael Alberto Navarro Zamora

St. Louis, Missouri
Lakewood, Colorado
New York, New York
Granada, Spain

ENVIRONMENTAL SCIENCES AND ENGINEERING ECOLOGY DEPARTMENT
Dr. George H. Kennedy, Acting Department Head

Master of Science
(Ecological Engineering)

Maurice L. Madden

Golden, Colorado

DOCTOR OF PHILOSOPHY

MINING ENGINEERING DEPARTMENT

Matthew J. Hrebar, III, Acting Department Head

Doctor of Philosophy
(Mining Engineering)

Leo L. Van Sambeek

Rapid City, South Dakota

METALLURGICAL ENGINEERING DEPARTMENT

Dr. William D. Copeland, Department Head

Doctor of Philosophy
(Metallurgical Engineering)

Jules Kaoma

Mansa, Zambia

GEOLOGY DEPARTMENT

Dr. Gregory S. Holden, Acting Department Head

Doctor of Philosophy
(Geology)

Gary Leo Prost
James Alexander Saunders

Lakewood, Colorado
Auburn, Alabama

GEOPHYSICS DEPARTMENT

Dr. Phillip R. Romig, Jr., Department Head

Doctor of Philosophy
(Geophysics)

Roger Alan Dalke
V. J. S. Grauch
Kamil E. Ibrahim
Bryan Anthony James

Boulder, Colorado
Evergreen, Colorado
Merowe, Sudan
Jacksonville, Florida

CHEMISTRY and GEOCHEMISTRY DEPARTMENT
Dr. George H. Kennedy, Department Head

Doctor of Philosophy
(Applied Chemistry)

Stephan J. DeLuca

Lancaster, California

MINERAL ECONOMICS DEPARTMENT
Dr. John A. Cordes, Department Head

Doctor of Philosophy
(Mineral Economics)

James Michael Caltrider
Norman Eugene Pence

Utica, Michigan
Lincoln, Illinois

5 April 1986

Board of Trustees Members
Colorado School of Mines
Golden, CO 80401

Dear Gentlemen:

On Saturday, May 10, the education I have received through the Colorado School of Mines will culminate in a Bachelor of Science degree in Metallurgical Engineering. As I look back on my degree program, a number of groups and individuals who facilitated my education can be identified. One of the most prominent members of this group is the Colorado School of Mines Board of Trustees.

When I entered Mines in the fall of 1981, the Board of Trustees provided me sponsorship through a BOT scholarship. The stresses associated with a Mines education are many, but thanks to this scholarship, financial stresses were not among those which I experienced; the scholarship enabled me to concentrate my efforts on classroom activities.

My future excites me, and I anticipate the challenges ahead. It is fitting that those who made this future possible be recognized, and so I thank the Board of Trustees for the support I enjoyed.

Again, thank you for your support.

Sincerely Yours,



Stuart L. Robertson, '86
B.S., Metallurgical Engineering

RECORD OF PROCEEDINGS

Golden, Colorado
June 27, 1986

The Board met in regular session on June 27, 1986, at 1:00 p.m. in The Aspen Lodge.

Trustees present: Ms. Allen, Mr. Earnest, student Trustee-elect, Mr. Henderson, Ms. Linch, Messrs. Pascoe, Schwartzberg, Warren, Wilson and Wood.

Also attending the meeting were President Ansell, Vice President Golden, and Mrs. Nancy Connick, Assistant Attorney General.

Mr. Wood presided.

Legal Representation in Shannon v. Colorado School of Mines, Ansell and Golden. Following a brief discussion, the meeting was adjourned and the Board went into executive session (1:05 p.m.).

At 1:15 p.m., the Board adjourned the executive session and returned to open session. The Board unanimously approved the following Resolution:

WHEREAS, pursuant to section 23-41-104, C.R.S. (1985 Supp.) the Board of Trustees had the control and management of the Colorado School of Mines, and

WHEREAS, the Colorado School of Mines has been named as a defendant in John M. Shannon v. Colorado School of Mines, George Ansell, and John O. Golden, Civil Action No. 86CV2558, Div. 2, in Jefferson County District Court, and


WHEREAS, George S. Ansell and John O. Golden have also been named as defendants in said lawsuit, and

WHEREAS, the Board of Trustees firmly believes that all acts or omissions of President Ansell and Dr. Golden complained of in this lawsuit occurred during the performance of their duties and within the scope of their employment and were neither willful nor wanton,

BE IT RESOLVED that the Board of Trustees hereby elects to assume the defense of President Ansell and Dr. Golden in such lawsuit pursuant to the provisions of section 24-10-110, C.R.S. (1985 Supp.).

The Board unanimously authorized the administration and its counsel to investigate possible counterclaims and to file meritorious counterclaims on its behalf.

The meeting was adjourned at 1:20 p.m.


Secretary

RECORD OF PROCEEDINGS

Golden, Colorado
June 28, 1986

The Board of Trustees met in regular session on June 28, 1986, at 1:30 p.m. in the Long's Peak Room of The Aspen Lodge.

Trustees present: Ms. Allen, Mr. Earnest, student Trustee-elect, Ms. Linch, Messrs. Pascoe, Schwartzberg, Warren, Wilson, and Wood.

Absent: Mr. Henderson

Also attending the meeting were President Ansell, Vice Presidents Golden, Nyikos, Robbins and Scott, Deans Gentry and Romberger, Prof. Dendy Sloan, faculty representative to the Board, other staff members, and visitors.

Mr. Wood presided.

Ms. Linch introduced Mr. Fred Earnest, newly-elected student representative to the Board of Trustees. Mr. Earnest will take office at the July Board meeting.

Recognition of Ms. Linch. Mr. Wood presented a silver Certificate of Appreciation to student Trustee Heidi Linch. The Certificate reads:

In recognition of her
loyal and meritorious service as
a member of the Board of Trustees,
this certificate is presented to
HEIDI LINCH
by the Board of Trustees upon the
occasion of expiration of the term
June thirtieth, One thousand nine hundred and eighty-six.

Previous Minutes. The minutes of the meeting held on May 9, 1986, were approved as distributed.

New Faculty Appointments. Dr. Gentry presented the report as follows:

Dr. Samuel S. Adams Professor of Geology and Head of the Department	\$55,000 for the 1986-87 academic year
Dr. Jerry Higgins Associate Professor of Geology	\$36,000 for the 1986-87 academic year
Dr. Joshua Ronen Visiting Assistant Professor of Mathematics	\$48,000 for the 1986-87 academic year

RECORD OF PROCEEDINGS

2

Dr. Annette Shine Assistant Professor of Chemical Engineering & Petroleum Refining	\$32,000 for the 1986-87 academic year
Dr. W. J. van Ooij Professor of Chemistry and Geochemistry	\$45,000 for the 1986-87 academic year

Reappointment after Interruption:

Mr. Paul L. Anderson Part-time Instructor in Mathematics	\$10,300 for the 1986-87 academic year
Ms. Nancy S. Angle Adjunct Assistant Implementation	\$20,250 for the 1986- 87 academic year
Dr. Barbara B. Bath Adjunct Assistant Professor of Mathematics	\$24,720 for the 1986-87 academic year
Dr. Robert C. Drury Visiting Assistant Professor of Mineral Economics	\$28,500 for the 1986-87 academic year
Dr. Joanne Greenberg Adjunct Assistant Professor of Humanities and Social Sciences	\$2,500 for the fall semester of the 1986-87 academic year
Mr. Louis D. Kovari Part-time Instructor in Mathematics	\$11,330 for the 1986-87 academic year
Ms. Charlotte G. Root Part-time Instructor in Mathematics	\$6,000 for the 1986-87 academic year
Mr. Saad Saleh Instructor in Engineering	\$21,500 for the 1986-87 academic year
Mrs. Nadia Turk Part-time Instructor in Humanities and Social Sciences	\$5,000 for the fall semester of the 1986-87 academic year

Dr. Gentry also reviewed the summary of faculty actions subsequent to the Board meeting of May 9, 1986 as follows:

1. Dr. Fred Akl has declined offer of employment as Associate Professor of Civil Engineering. Dr. Akl was reported at the previous Board meeting to begin employment in August 1986.
2. Dr. Dennis Moore has been hired as Associate Professor of Electrical Engineering to start in August 1986.

June 28, 1986

RECORD OF PROCEEDINGS

3

3. Dr. Karl Nelson, Acting Head of the Engineering Department, effective May 12, 1986.

Quantitative Evaluation Reports were distributed to the Board prior to the Board meeting.

Admissions. Mr. Young reviewed the Admissions Report dated June 26, 1986. He stated that in order to calculate compliance with the MOU, the following definitions have been adopted: Exempt students - These students are exempted from the MOU. For fall of 1986, there are two student groups in this category: 1) Foreign students, and 2) U.S. citizens who have attended secondary schools in foreign countries whose grading scales are not comparable to those in the MOU. The CCHE has verbally agreed to this procedure. Base number - The base number is the students who have to be considered for admission under the MOU admissions standards. It is equal to the total accepted students minus exempt students.

Mr. Young informed the Board that his staff has been contacting students who have been accepted for admission but who have not yet made a commitment to attend CSM.

Graduate School Admissions. Dr. Romberger reviewed the report on graduate student admissions for fall 1986, dated June 19, 1986. He is hoping for an enrollment of 700 graduate students for fall 1986. Two new programs which may have a positive impact on fall graduate enrollment are the offering of an on-site Materials Science program at Martin Marietta, and the return to school of a number of Schlumberger engineers for the purpose of completing a one-year professional degree program in Geology, Geophysics, and Petroleum Engineering.

New Research Awards. Dr. Romberger reviewed the status of new research awards as of June 23, 1986. The cumulative volume is \$6,881,273 after a June monthly income of \$542,221. Dr. Romberger also reported on the proposal activity.

Undergraduate Curriculum Revisions. Dr. Gentry informed the Board that the Institutional Ad Hoc Curriculum Committee met for two hours each week from September 1984 until February 1985. The committee debated, sought input on, and subsequently identified the curriculum's primary goals. These goals essentially constituted a rewording--a reaffirmation--of the Future Graduate Profile attributes. A curriculum structure was then specifically designed in an attempt to achieve these goals. The committee reported its preliminary recommendations to the CSM faculty at an open meeting in February 1985.

In the year that followed the faculty analyzed and studied the issues and potential ramifications through informal discussions, departmental meetings and curriculum planning exercises. During March-April 1985, the committee visited individual departments and discussed with groups of faculty members the rationale for the proposed changes. Reactions and feedback to these changes were carefully analyzed and a revised

June 28, 1986

RECORD OF PROCEEDINGS

4

curriculum structure developed. This was studied and debated by collections of ad hoc departmental committees from November 1985 to January 1986.

The following recommended curriculum changes constitute another step in the continuing evolution of CSM's undergraduate curricula.

- 1) Each program of study leading to a B.S. degree should continue to incorporate a field-session experience. However, each program will establish its own field-session requirements, not to exceed a total of six semester credit hours.
- 2) There should be increased emphasis on the pursuance of minor fields of study. Curricular structures should be designed such that minor programs of study can be initiated in the sophomore year. Requirements for minor programs of study should be strengthened (see attachment 2 of the report appended hereto), and the mandatory technical elective for non-mineral engineering programs deleted.
- 3) Each degree granting program should contain no less than 136 credit hours and no more than 148 credit hours.
- 4) Applied Science degrees, consistent with the mission of CSM, should be instituted.
- 5) The undergraduate curriculum structure (attachment 5 of the report appended hereto) should be adopted.

Dr. Gentry reviewed the Board's previous actions with regard to the undergraduate curriculum.

Extensive discussion ensued following which the Board unanimously approved the proposed curricular structure. This approval was predicated on the understanding that the Board wishes to review any proposed major curricular changes or name changes in degree titles particularly for applied science programs.

Mr. Wilson expressed the hope that with the Board's approval of the proposed curricular structure, concentration can now center on efforts to improve programmatic content and delivery.

Monthly Reports. Mr. Scott reviewed the monthly reports as follows: Current Funds Revenues, Expenditures and Other Changes for the Eleven Months Ending May 31, 1986; Colorado School of Mines State Appropriated Funding Comparison of FY 1986 to FY 1985 for the eleven months ending May 31; Auxiliary and Self-Funded Activities for the eleven months ending May 31, 1986; and Time Deposits and Investment Report, May 31, 1986. It is his belief that the School is operating within the revenues projected for the 1986 fiscal year.

June 28, 1986

RECORD OF PROCEEDINGS

5

Mr. Wood expressed his appreciation for having received the two Internal Audit reports on the Publications Department.

Information on Entities Related to CSM. Mr. Scott reminded the Board that at its May meeting it asked the administration to consider the best method of providing additional information on the operations and financial status of CSMRI, CSMAA and CSMF.

Mr. Scott proposed that the Board host representatives of the aforementioned organizations at informal luncheons following scheduled Board meetings. The representatives could be asked to provide appropriate reports, and informal discussion could follow.

It was the consensus of the Board to host representatives of CSMRI, CSMAA and CSMF at informal luncheons following scheduled CSM Board meetings. These representatives would be asked to provide appropriate reports to the CSM Board.

Recommended Parameters for the 1987-88 Education and General Budget. Mr. Scott reviewed the narrative which clarifies the proposed budget parameters. Mr. Scott also reviewed an Education and General Budget incorporating the proposed budget parameters. The aforementioned documents are appended hereto. Mr. Scott will submit the 1987-88 budget request for approval in September or October, and will ask for approval of the final 1987-88 budget in May or June 1987.

Discussion ensued following which the Board unanimously approved the recommended parameters for the 1987-88 education and general budget.

Mr. Scott reviewed the recommended 1987-88 budget, for all funds, which is for information only and which is appended hereto. He also reviewed the list of capital construction projects being prepared for preliminary submission to the CCHE. The Board agreed to advance the list of projects to the CCHE as recommended. The list is appended hereto.

Retirees' Health Insurance. Mr. Scott informed the Board that CSM began to contribute to the cost of health insurance for our retired faculty in July 1984. The CSM contribution was set at an amount not to exceed the 1983-84 single person premium for health insurance, \$73.10 per month, with the proviso that it was not guaranteed to be increased in the future; no mention was made of a decrease. The goal was to ease the financial pressure caused by rapidly escalating health care costs. PERA legislation had been proposed but not passed. Retired classification employees receive a maximum contribution of \$59 based on their years of service, which is made by the State through the Department of Accounts and Controls.

The Colorado General Assembly passed legislation allowing the establishment of health insurance for retirees through PERA, effective July 1, 1986. A portion of the established PERA contribution was diverted from the former

June 28, 1986

RECORD OF PROCEEDINGS

6

purposes to offset the cost. Three plans are offered, Kaiser Permanente, Compicare and AMI care. The premiums vary according to the number of persons covered, the Medicare coverage of the individual and dependents and the years of service under PERA. Extended coverage is available for surviving dependents.

The CSM plan will see a sizable decrease in premiums for 1986-87 as a large reserve is applied to the payments for this year. The premiums are expected to increase in the future, even without an increase in health costs.

Motion was made, seconded and passed giving CSM approval to continue to contribute to the premium for retired contract employees insured by United of Omaha according to the terms and conditions of the policy established July 1984 and will extend that policy to all contract employees who retire prior to September 1, 1986. No contributions will be made to other carriers.

Laboratory Fees for Military Science 1986-87. Dr. Gentry informed the Board that, in the past, cadets have paid for each ROTC activity on an individual basis. For example, the Military Ball and Dining-In this past year were both mandatory for cadets. Expenses were met by selling tickets to the cadets. This cost came out of the cadet's pocket. Under the proposed fee structure, the U.S. Army will pay the laboratory fee for all scholarship cadets. This accounts for over 90% of the cadets formally enrolled in the ROTC Program. Costs of subject laboratory fees will be \$125.00 per semester.

Non-scholarship students will not be required to participate in all activities. Every attempt will be made to reimburse them for the cost of the Dining-In and Military Ball.

The Board unanimously approved the laboratory fee for MS 103, 104, 203, 204, 303, and 403 of \$125.00 per semester effective for the 1986-87 academic year.

Student Services Presentation. Dr. Harold Chevront, Dean of Student Affairs, discussed the freshmen mentor program at Mines, academic placement at CSM, the health services, renovations to housing and food facilities, the common yearly cycle of freshmen, and common freshmen questions and comments. Dr. Chevront had previously provided the Board with complete information on the aforementioned subjects, together with a chart outlining the student development theory, a list of mentors, and other information which will be provided to incoming students.

Mr. Wood thanked Dr. Chevront for his report.

Report on TI Personal Computer Program at CSM. Dr. Gentry provided an update to the 1985 report, stating that the primary objective of the PC plan is to facilitate the ability of CSM students to become computer literate through enhanced integration and utilization of computer applications throughout the undergraduate curricula. The PC program plan adopted by the

June 28, 1986

institution calls for a four-year start-up/acquisition period. The first year of the program plan was designed to start with the 1984-85 entering freshman class. The basic concept adopted called for additional PC acquisition and expansion of machine usage throughout the curriculum as these students progressed toward graduation. He reviewed the 1985-86 academic year with regard to the program and stated that there is a need for the institution to provide additional support to the PC program. He discussed other concerns about the program.

Dr. Gentry stated that there is a need to acquire a minimum of 30 additional PC's for the 1986-87 academic year to handle students in the EPICS program (primarily sophomores). Even then, he anticipates that the institutional clusters will be used eight hours each day, simply to handle the EPICS students in the freshman and sophomore classes. Additional systems are needed for departmental usage and software development by faculty members.

Dr. Gentry informed the Board that the Computer Advisory Committee appointed a subcommittee to review PC acquisition issues during spring semester of 1986. In short, the committee recommends that diversification to IBM PC compatible systems be implemented, that CSM provide a mechanism for students and faculty to purchase IBM compatible PC's at reduced rates, that the institution purchase "IBM PC/AT like" systems only in the future, and that a workstation evaluation committee be established, and that one individual responsible for PC support be hired.

Mr. Wood thanked Dr. Gentry for his report.

Legislative Summary #4. Dr. Nyikos reviewed the legislative summary. He informed the Board that the General Assembly had adjourned and made no substantial change in the appropriation to higher education or to CSM. He discussed the activities of the CCHE and informed the Board that the CCHE will meet at CSM on November 7, 1986.

Dr. Nyikos informed the Board that at the June meeting of the CCHE Mr. Bruce Benson was elected Chairman and will assume office in July. The CCHE also approved the granting of a Ph.D. in Electrical Engineering by the University of Colorado at Colorado Springs. However, the degree has to be delivered from the University of Colorado at Boulder.

Report to CCHE on Tuition and Fee Rates, 1986-87. President Ansell informed the Board that this is the first report required under the new CCHE Tuition and Fees Policy. Following Board approval, the report will be submitted to the CCHE.

The Board unanimously approved the Report to the CCHE on Tuition and Fee Rates for 1986-87.

Continuing Education. Dr. Golden informed the Board that the new CCHE guidelines on continuing education require that the Trustees approve all continuing education courses

RECORD OF PROCEEDINGS

8

offered outside of either the state of Colorado or states contiguous to Colorado. He reviewed the courses being offered by CSM at sites outside of the state of Colorado between July 1 and December 31, 1986, and recommended Board approval.

The Board unanimously approved the continuing education courses being offered by CSM outside of either the state of Colorado or states contiguous to Colorado.

CCHE request to authorize use of ACT Data. Dr. Golden reviewed a letter written by Dr. Blenda Wilson of the CCHE dated June 6, 1986, in which she states that the Colorado Department of Education is planning a pilot project this summer to provide feedback from the colleges to high schools on the academic performance of first-year postsecondary students. Because ACT already has data for the 1984-85 year for most of the four-year institutions, the most economical way to do this study is to contract with ACT to prepare feedback reports from their data. In order to use CSM's institutional data ACT needs to have a letter from this Board authorizing the use of our data for this project. No student-specific data will be released.

Motion was made, seconded and passed to authorize the use of CSM data for this project.

The meeting was adjourned at 4:30 p.m., and the Board went into executive session.


Secretary

June 28, 1986

RECORD OF PROCEEDINGS

Golden, Colorado
July 25, 1986

The Board of Trustees met in regular session on July 25, 1986, at 9:00 a.m.

Trustees present: Student Trustee designate Mr. Earnest, Messrs. Henderson, Pascoe, Schwartzberg, Wilson and Wood.

Absent: Mrs. Allen and Mr. Warren.

Also attending the meeting were President Ansell, Vice Presidents Golden, Nyikos, Robbins and Scott, Deans Gentry and Romberger, Prof. Dendy Sloan, faculty representative to the Board, other staff members, and visitors.

Mr. Wood presided.

Oath of Office. The oath of office was administered to student Trustee Fred Earnest and was properly executed by him.

Mr. Schwartzberg entered the meeting at this time.

Previous Minutes. The minutes of the meeting held on June 28, 1986, were approved as distributed.

New Faculty Appointments. Dr. Gentry presented the report as follows:

Dr. Dennis F. Moore Associate Professor of Engineering	\$40,000 for the 1986-87 academic year
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Mr. David R. Munoz Instructor in Engineering*	\$26,000* for the 1986-87 academic year
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*Upon completion of the Ph.D., Mr. Munoz's title will change to Assistant Professor of Engineering, and his salary will be \$31,000.

Reappointment after Interruption:

Dr. G. Mattney Cole Visiting Assistant Professor of Chemistry & Geochemistry	\$26,500 for the 1986-87 academic year
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Dr. Barry Hughes Adjunct Professor of Humanities & Social Sciences	\$3,500 for the fall semester of the 1986- 87 academic year
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Mr. Patrick Madison Part-time Instructor in Mathematics	\$4,120 for the 1986-87 academic year
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RECORD OF PROCEEDINGS

2

Mr. Dale W. Milich Instructor in Engineering	\$21,000 for the 1986-87 academic year
Dr. George W. Pring Adjunct Professor of Environmental Science and Engineering Ecology	\$9,220 for the 1986-87 academic year
Dr. Daniel T. Teitelbaum Adjunct Professor of Environmental Science and Engineering Ecology	\$3,500 for the fall semester of the 1986-87 academic year

Dr. Gentry also reviewed the summary of faculty actions subsequent to the Board meeting of June 28, 1986 as follows:

Dr. Roderick G. Eggert has been hired as Assistant Professor of Mineral Economics to start in August 1986.

Quantitative Evaluation Reports were distributed to the Board prior to the Board meeting.

Admissions. Mr. Young showed a videotape which will be used for recruiting purposes. The tape will be made available to students for viewing on home video machines and to high schools.

Mr. Young reviewed the Admissions Report dated July 15, 1986.

Graduate School Admissions. Dr. Romberger reviewed the summary of graduate student admissions for fall 1986, compared to the two previous years, which includes all information and actions through June 30, 1986.

Dr. Romberger informed the Board that two new programs mentioned at the June Board meeting, the on-site Materials Science program at Martin Marietta and the returning of Schlumberger professionals, appear to be progressing well. There will be 17 Martin employees taking part in the former, and between 10 and 15 applications have been received for the latter. In addition, other applications are being received from non-Schlumberger people for the Professional Degree program.

New Research Awards. Dr. Romberger reviewed the status of new research awards as of June 30, 1986. The June volume of \$775,025 results in a final total of \$7,114,077, just slightly better than the \$6,914,493 for 1984-85, and well below the goal of \$8,000,000. Total proposal activity has improved over last year (223 in FY 1986 vs. 191 in FY 1985). This increase, and the hiring of a large number of faculty involved with research, should result in a significant increase in new award volume next year. In June 1986, 15 proposals were submitted, compared to 20 the previous year.

RECORD OF PROCEEDINGS

3

Monthly Reports. Mr. Scott reviewed the monthly reports as follows: Current Funds Revenues, Expenditures and Other Changes for the Twelve Months Ending June 30, 1986; Colorado School of Mines State Appropriated Funding Comparison of FY 1986 to FY 1985 for the twelve months ending June 30; Auxiliary and Self-Funded Activities for the twelve months ending June 30, 1986; and Time Deposits and Investment Report, June 30 1986.

Year-End Development Results. Mr. Robbins informed the Board that the CSM Foundation has been reorganized for the purpose of achieving greater efficiency. Ken Dike is Director of Financial Affairs and Support Services, and the Office of Development is headed by Joanne Carr and David Doubleday.

Mr. Dike reviewed the investment report and stated that written policy statements are being prepared with regard to the management of the funds in the Foundation.

Ms. Carr reviewed the contributions report for the fiscal year 1985-86 and stated that The President's Council now has 205 members, who are responsible for \$2.1 million in unrestricted giving. She reviewed new gifts of note and the challenge grant for computer acquisition.

Mr. Robbins informed the Board that the goal for next year is \$6.65 million, which is 25% greater than last year's goal.

Mr. Doubleday thanked Mr. Wood for serving as Chairman of The President's Council during the first year of the Council's existence.

Approval of Nominee to Serve on Geophysics Visiting Committee. President Ansell stated that Dr. Romig, head of the Geophysics Department, has suggested that Dr. Allan V. Cox, Dean of Earth Sciences at Stanford University, be invited to serve on the Visiting Committee for Geophysics, as a representative of the academic community. President Ansell said that he believes that Dr. Cox is probably the best known geophysics academic in the United States and recommended Board approval.

It was moved, seconded and approved to invite Dr. Cox to serve on the Visiting Committee for Geophysics.

1987 Annual Trustees' Conference. President Ansell informed the Board that the agenda for the 1987 Conference will be fund raising. He stated that if the Board wishes to return to the Aspen Lodge for its annual conference, the only available June dates are June 11-14, 1987 (Thursday through Sunday). The 1987 rate structure is \$90.00 for single occupancy (includes room, board, and meeting breaks), and \$65.00 per person for double occupancy.

The Board unanimously approved the fund raising agenda and the dates of June 11-14, 1987 for its Annual Conference.

RECORD OF PROCEEDINGS

4

Capital Construction Budget Request, 1987-88. Mr. Scott reviewed the prioritized list of requests and recommended Board approval. Dr. Nyikos stated that the legislative Capital Development Committee visited the campus on July 7, and it was favorably disposed to funding the Engineering Hall renovation.

The Board unanimously approved the Capital Construction Budget Request for 1987-88.

The meeting was adjourned at 10:45 a.m., and the Board went into executive session.


Secretary

July 25, 1986

RECORD OF PROCEEDINGS

Golden, Colorado
September 12, 1986

The Board of Trustees met in regular session on September 12, 1986, at 9:00 a.m.

Trustees present: Mrs. Allen, Messrs. Earnest, Henderson, Pascoe, Schwartzberg, Warren, Wilson and Wood.

Also attending the meeting were President Ansell, Vice Presidents Golden, Nyikos, Robbins and Scott, Deans Gentry and Romberger, Prof. Dendy Sloan, faculty representative to the Board, other staff members, and visitors.

Mr. Wood presided.

Previous Minutes. The minutes of the meeting held on July 25, 1986, were approved as distributed.

New Faculty Appointments. Dr. Gentry presented the report as follows:

Dr. Jack Corlew Adjunct Professor of Chemical Engineering and Petroleum Refining	\$3,700 for the fall semester of the 1986-87 academic year
Dr. Roderick G. Eggert Assistant Professor of Mineral Economics	\$33,000 for the 1986-87 academic year
Dr. Harold W. Olsen Adjunct Professor of Engineering	No compensation (research)
Ms. Cheryl A. Siefert Adjunct Assistant Professor of Mineral Economics	\$2,000 for the fall semester of the 1986-87 academic year

Reappointment after Interruption:

Dr. P. James LeAnderson Adjunct Assistant Professor of Geological Engineering	\$4,500 for the fall semester of the 1986-87 academic year
Mrs. Louise Morrison Adjunct Assistant Professor of Mathematics	\$3,000 for the fall semester of the 1986- 87 academic year

Continuation of Appointment:

Dr. Henry A. Babcock Adjunct Professor of Engineering	\$6,000 for the fall semester of the 1986-87 academic year
Dr. James Ely Adjunct Professor of Chemical Engineering and Petroleum Refining	\$7,400 for the 1986- 87 academic year

RECORD OF PROCEEDINGS

2

Dr. Samuel Gray Adjunct Associate Professor of Mathematics.	No compensation
Mr. Silver Miller Instructor in Engineering	\$22,500 for the 1986- 87 academic year
Dr. Jerome G. Morse Director of the Advanced Materials Institute and Research Professor of Physics	\$46,000 for the period September 1, 1986 to August 1, 1987
Dr. Judith D. Schlesinger Adjunct Associate Professor of Mathematics	\$16,000 for the 1986- 87 academic year

Quantitative Evaluation Reports were distributed to the Board prior to the Board meeting.

Graduate School Admissions. Dr. Romberger reviewed the final Graduate Student Admissions report for the 1986 fall semester. He informed the Board that the figures on the report indicate that there has been significant growth in several departments while others have remained about the same in admissions compared to the previous years. No department shows a significant downward trend over the three years of record. Those departments showing growth are Chemistry, Environmental Sciences, Mineral Economics, Petroleum Engineering, and Physics. Modest increases are evident in Geology and Chemical Engineering, while other departments have remained the same.

Dr. Romberger reported that significant changes from previous years are the increase in enrollment in the Professional Degree programs and the drop in interest in the Executive Program, most likely caused by the depression in the energy and minerals industries. Also of note is the first-time offering of a Materials Science course on site at Martin Marietta where eighteen employees are taking part.

Admissions. Mr. Young reviewed the Admissions Report dated September 1, 1986, which contains the number of women and ethnic minority students who have applied for the 1986 fall semester. Discussion ensued.

Enrollment. Mr. Spaulding reviewed the enrollment statistics for fall 1986-87. Also included in Mr. Spaulding's report were comparable final statistics for previous fall semesters. He informed the Board that final editing of the data will be completed prior to publication of the Registrar's report next month.

New Research Awards. Dr. Romberger reviewed the new award volume for July and August 1986. He stated that the August total is \$678,718 to give a cumulative for 1986-87 of \$1,499,327, slightly ahead of the \$1,431,261 for the previous year. Dr. Romberger informed the Board that during the month of August, 27 proposals were submitted, compared to 16 for the same month of the previous year. The total for the present fiscal year is 47 compared to 34 for the same period last year. The cumulative value of proposals to date is \$6,753,256.

September 12, 1986

RECORD OF PROCEEDINGS

3

Monthly Reports. Mr. Scott reviewed the monthly reports as follows: Current Funds Revenues, Expenditures and Other Changes for the Two Months Ending August 31, 1986; Colorado School of Mines Auxiliary and Self-Funded Activities for the Two Months Ending August 1986; and Time Deposits and Investment Report, August 31 1986.

Mr. Scott distributed and reviewed Colorado School of Mines balance sheets with accompanying summary of significant accounting policies and notes to financial statements for FY 1986. He announced that the next audit is scheduled for January 1987.

Curriculum Report. Dr. Gentry informed the Board that the Colorado Commission on Higher Education (CCHE) has recently completed its teacher education project. The School of Mines is involved only to a limited degree in teacher preparation. The one action of the Commission that has direct application to the School of Mines is stated as follows:

The core curriculum in liberal arts and sciences is a major component of teacher preparation. Too frequently, attention has been focused excessively on professional courses and the expanded requirements of major departments. A refocus on the liberal arts and sciences core is needed. The commission recommends that governing boards direct their institutions to review the undergraduate core program in liberal arts and sciences to assure that students are exposed to a broad range of liberal arts and sciences. The Commission directs the governing boards to report, by June 1, 1987, on their undergraduate core program in liberal arts and sciences and any modifications they have made.

The Commission requests a report from the Colorado School of Mines on its core curriculum by June 1, 1987

Mr. Henderson stated that he would like to see this report distributed to the faculty.

Accreditation Report. Dr. Gentry informed the Board that on September 15, 1985, an accreditation team from the Accreditation Board for Engineering and Technology, Inc. evaluated four engineering programs at CSM. The four programs were Engineering, Engineering Physics, Geological Engineering and Geophysical Engineering. The institution was officially notified on August 20, 1986 that all four programs were accredited and would next be evaluated at the next general review for the institution which occurs in the fall of 1989.

Dr. Gentry discussed the areas of concern, the most serious being the laboratory equipment situation.

September 12, 1986

RECORD OF PROCEEDINGS

4

Program Discontinuance. Mr. Wilson, who is the CSM Trustee representative to the CCHE Program Discontinuance Committee, stated that Mines has four degree programs which are under consideration for program termination: P.E. in Chemical and Petroleum Refining, P.E. in Metallurgical Engineering, P.E. in Petroleum Engineering, and M.S. in Mine Health and Safety. Dr. Golden briefly described these programs and summarized CSM's arguments for retaining the degrees. He said that it is important to note that CSM participated with CCHE in selecting these degrees for further study. These degrees were chosen as the ones that, if terminated, would be least harmful to Mines.

The Program Discontinuance Committee is scheduled to meet on October 1, 1986.

Announcement. Dr. Nyikos informed the Board that the terms of CCHE Commissioners Moore and Woodward will expire in June 1987. President Ansell suggested that the Board may want to consider nominating someone to serve on the Commission.

Sabbatical Report. Dr. Karen B. Wiley, Assistant Professor of Humanities and Social Sciences, who was on leave during the 1985-86 academic year presented her report. Dr. Wiley worked for the Environmental Protection Agency in Denver during her sabbatical. She reviewed the projects with which she was involved and discussed the benefits to her personally and professionally and to Mines.

Mr. Wood thanked Dr. Wiley for her report.

Emeritus Retirement. Dr. Golden informed the Board that under the Faculty Handbook (Tenth Edition, August 1982) requirement of a minimum of ten years of valuable service with at least five of these years as a full professor or a minimum of thirty years of service irrespective of rank, Dr. George V. Keller, Professor of Geophysics is retiring this month on a transitional appointment for the 1986-87 academic year. Dr. Keller meets the above qualifications, and thus Dr. Golden is recommending conferral of emeritus status for Dr. Keller.

Recommendations for the Metallurgy Visiting Committee. President Ansell informed the Board that Dr. Copeland has recommended that the following persons be invited to serve on the Visiting Committee:

Dr. Neil E. Paton, Director, Material
Engineering and Technology, Rockwell
International, Rocketdyne Division,
Canoga Park, CA

Albert R. C. Westwood, Corporate Director
R & D, Martin Marietta Corp., Baltimore, MD

Robert Bates, Manager, Metallurgy Department,
Westinghouse Electric Company, R & D Center,
Pittsburgh, PA

The Board unanimously approved the above recommendations.

September 12, 1986

RECORD OF PROCEEDINGS

5

Report From Faculty Representative. Dr. Dendy Sloan, faculty representative to the Board of Trustees, presented the following report:

Each year, particularly during the Fall Semester, there seems to be a sort of a "honeymoon" period during which the faculty realize again how good it is to be with the bright young people who comprise both our undergraduate and our graduate student body, particularly in the classroom. After a summer of doing research, our generally introverted nature for dealing with ideas and concepts is sated and we realize that we're happy to be with students in the classroom. Let me hasten to add that this "honeymoon" period, both for professors and students usually comes to an end, like a love affair gone sour, about the time of the first major round of tests. But we're still in the "honeymoon" period this year. So I would like to report the faculty's perception of the school as being generally positive.

First, the faculty seem to be very impressed with the excellent new faculty we have hired. The faculty seems to realize that hiring this many new faculty represents a financial risk, but it seems to be a risk based on an investment in the intellectual future of the school, and I believe that the faculty are excited to see movement in this direction.

Secondly, I believe that there is a slowly awakening new sense of collegiality among the faculty. In the past, faculty haven't hesitated to be judgmental, perhaps more than at other institutions, particularly toward the students. Yet we hesitated to turn some of that judgment toward our own colleagues. We had the vast majority of colleagues with whom we were proud to be associated. But, there were a few faculty whose presence we preferred to ignore, and therefore support by avoidance, hoping that the administration would take some action and relieve us of that responsibility.

Now, as Steve Daniel said at Estes Park, we are coming to the idea that "We are our own intellectual resource." As such we realize that the faculty must take part in the process of determining in fact "Who Comprises the Faculty." We applaud the administration's establishment of a participative process in which we have a substantial voice in determining, for example, 1) what the school mission, goals, and strategies should be, 2) who should be promoted or tenured, 3) how salaries are equitably distributed, 4) how a faculty senate can participate in the process. These sorts of things, done with a committee structure, give a sense of openness to the governing process which had not previously been present. They bring the faculty to a sense of a "guided participative democracy", a sense of

RECORD OF PROCEEDINGS

6

having some say in faculty governance and regulation. We are coming to the realization that the intellectual light which we hope to shine on our students, must be even brighter when each of us stand under it.

Along with this very active committee process, over the last 2 years, there is a small sense of being a little burned out, but there is also a sense of expectancy of the future. A sort of "Let's see what comes of all the time and effort we put into this process for planning the future of CSM." We are no longer discussing the big ideas of the future, such as the turn in the research direction, or the concept of 1000 graduate students. The faculty are vitally interested in and excited by the details of the future, the fruition of the past two years of planning. Both the administration and faculty now have the challenge to go beyond the committee structure - to the area of individual commitment to making it happen, wherein each of us has a personal stake in the future of the school.

Discussion of Previous Commitment of the Board to Underwrite Subsurface Geology Textbook Revision. Mr. Jensen reminded the Board that at its meeting of July 13, 1984, it approved a request to ask the CSM Foundation for a loan of \$50,000 for the textbook revision. He distributed and reviewed a revised budget for publishing the textbook.

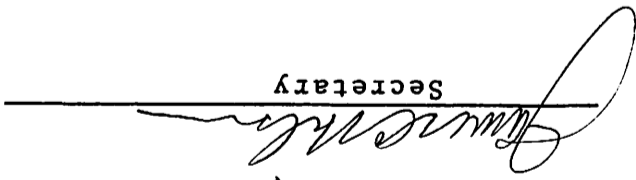
Discussion ensued, following which the Board unanimously voted to approve the motion to publish the fifth edition of Subsurface Geology by L. W. Leroy and D. O. Leroy and to finance the cost of such publication in an amount not to exceed \$50,000 by an interfund loan with CSM, interest payable at a rate equal to the average earnings on CSM pooled funds over the period of the loan, or from other sources as appropriate.

Retirees' Health Insurance. Mr. Scott reminded the Board that at its meeting of June 28, 1986, it extended the coverage provided contract employees under the health insurance program to all those retired prior to September 1, 1986. Contributions toward the premium costs were agreed to be continued at the rate then in effect. Since that time a number of active employees, considering retirement, have said they consider such coverage and contribution to be a consideration in planning for their own retirement. Mr. Scott stated that this has been discussed within the administration, and it is considered desirable to extend the deadline to December 31, 1986.

Discussion ensued, following which the Board unanimously approved the motion for extension of coverage and premium contribution under the terms of previously approved policies for those contract employees who give written notice of their retirement, effective no later than December 31, 1986, to the Dean of Faculty or the appropriate Vice President in the case of administrative faculty.

September 12, 1986

September 12, 1986


Secretary

The meeting was adjourned at 10:45 a.m., and the Board went into executive session.

RECORD OF PROCEEDINGS

Golden, Colorado
October 10, 1986

The Board of Trustees met in regular session on October 10, 1986, at 9:00 a.m.

Trustees present: Mrs. Allen, Messrs. Earnest, Pascoe, Schwartzberg, Wilson and Wood.

Absent: Messrs. Henderson and Warren.

Also attending the meeting were President Ansell, Vice Presidents Golden, Nyikos, Robbins and Scott, Dean Romberger, Prof. Dendy Sloan, faculty representative to the Board, other staff members, and visitors.

Mr. Wood presided.

Previous Minutes. The minutes of the meeting held on September 12, 1986, were approved as distributed.

Sabbatical Report. Dr. F. Edward Cecil, Professor of Physics, who was on leave at one-half pay during the 1985-86 academic year, presented his sabbatical report. He told the Board that he is in the third year of a four-year contract which he has with the Department of Energy, and that he spent his sabbatical leave doing research at Princeton University. He presented slides and reviewed his activities. He stated that the benefits of the sabbatical included renewed enthusiasm for teaching, valuable experience professionally and scientifically, and the contacts he made while on sabbatical.

Mr. Wood thanked Dr. Cecil for his report.

New Faculty Appointments. Dr. Golden presented the report as follows:

Dr. David Cooper Adjunct Assistant Professor of Environmental Science and Engineering Ecology	\$2,250 for the fall semester of the 1986-87 academic year
Dr. Carl E. Cross Adjunct Professor of Metallurgy	\$6,000 for the 1986-87 academic year
Dr. Duane A. Haugen Adjunct Professor of Mathematics	\$5,000 for the fall semester of the 1986-87 academic year
Dr. Stephen Hotchner Adjunct Professor of Humanities & Social Sciences	\$2,500 for the fall semester of the 1986-87 academic year

RECORD OF PROCEEDINGS

2

Dr. Daniel L. McCord Adjunct Assistant Professor of Mathematics	\$2,500 for the fall semester of the 1986-87 academic year
Dr. Nalini Mitra Visiting Professor of Physics	No compensation for the 1986-87 academic year
Dr. Ronald E. Reese Adjunct Assistant Professor of Mathematics	No compensation for the 1986-87 academic year
Dr. Chih-yu Shih Adjunct Professor of Humanities & Social Sciences	\$2,500 for the fall semester of the 1986- 87 academic year
Dr. Robert J. Sterrett Assistant Professor of Geological Engineering	\$28,173 for the period October 15, 1986- May 8, 1987

Reappointment after Interruption:

Dr. Barry Hughes Adjunct Professor of Humanities & Social Sciences	\$3,500 for the fall semester of the 1986-87 academic year
Dr. Frederick B. Bart Part-time Instructor in EPICS	\$5,000 for the period October 1, 1986- May 8, 1987
Mr. Wayne K. Richmond Adjunct Associate Professor of Humanities & Social Sciences	\$5,100 for the 1986-87 academic year
Dr. Paul Burgardt Adjunct Professor of Metallurgy	\$6,000 for the 1986-87 academic year

Continuation of Appointments:

Dr. John E. Costa Adjunct Professor of Geological Engineering (Advising capacity)	No compensation for the 1986-87 academic year
Dr. Gordon Day Adjunct Associate Professor of Physics	No compensation for the 1986-87 academic year
Dr. Martin B. Goldhaber Adjunct Professor of Chemistry and Geochemistry	No compensation for the period Sept. 1, 1986-August 31, 1987
Dr. Samuel S. Goldich Adjunct Professor of Geological Engineering	No compensation for the 1986-87 academic year

October 10, 1986

RECORD OF PROCEEDINGS

3

Dr. Robert D. Hamilton Adjunct Assistant Professor of Geological Engineering	No compensation for the 1986-87 academic year
Mr. R. Theodore Hurr Adjunct Professor of Geological Engineering	No compensation for the 1986-87 academic year
Dr. Hossein Kazemi Adjunct Associate Professor of Petroleum Engineering	\$2,100 for the fall semester of the 1986-87 academic year
Dr. Robert Knecht Adjunct Professor of Chemical Engineering and Petroleum Refining	\$7,400 for the 1986-87 academic year
Mr. Ross R. McClure Adjunct Assistant Professor of Humanities & Social Sciences	\$4,500 for the 1986-87 academic year
Dr. James D. Navratil Adjunct Professor of Chemistry and Geochemistry	No compensation for the period Sept. 1, 1986-August 31, 1987
Mr. T. James Reynolds Adjunct Professor of Geological Engineering	No compensation for the 1986-87 academic year
Dr. Reuben J. Ross, Jr. Adjunct Professor of Geological Engineering	No compensation for the 1986-87 academic year
Mr. Ray Sengbush Visiting Professor of Geophysics	\$24,818 for the fall semester of the 1986-87 academic year
Dr. James C. Smart Adjunct Associate Professor of Chemistry and Geochemistry	No compensation for the period Sept. 1, 1986-August 31, 1987
Dr. Diana Ten Eyck Adjunct Assistant Professor of Mineral Economics	\$20,000 for the 1986- 87 academic year
Mr. Bruce Van Haveren Visiting Assistant Professor of Environmental Science and Engineering Ecology	No compensation for the period Sept 1, 1986-August 31, 1987 (Compensation will be paid by the U.S. Dept. of the Interior)

Quantitative Evaluation Reports were distributed to the Board prior to the Board meeting.

Graduate School Admissions. Dr. Romberger reviewed the two graduate admissions reports which had been distributed to the Board. The first report contains the final figures for

October 10, 1986

RECORD OF PROCEEDINGS

6


Presentation. President Ansell presented Mr. Wood with a momento from the Charter Membership of The President's Council for serving as the first President of The President's Council.

Approval Request for Out-of-State Instruction. Dr. Golden informed the Board that the administration failed to request approval of four courses which the School is offering through the Office of Special Programs and Continuing Education. He reviewed the details and requested approval.

The Board unanimously approved the request for out-of-state instruction and ratified the offering of those given prior to their approval.

Recommendation for the Metallurgy Visiting Committee. President Ansell informed the Board that Dr. Arden Bement, who had previously declined an invitation to serve on the Metallurgical Engineering Visiting Committee, has now agreed to serve on that Committee.

The meeting was adjourned at 10:30 a.m., and the Board went into executive session.


Secretary

October 10, 1986

CSM
BOARD OF TRUSTEES
AGENDA ITEMS

Date of Meeting 11/14/86
Item Number 1
Presented By Ansell

Subject: Amendment to minutes of June 28, 1986

Background Information:

At the June 28, 1986 Board meeting, the Board of Trustees, in executive session, discussed the matter of ratification of assigned duties related to CSMRI Board of Trustees. Following that discussion, the Board returned to open session and unanimously approved the motion, which is attached hereto.

Action Motion Requested:

Motion to amend the minutes of June 28, 1986 to reflect the action taken by the Board in the matter of ratification of assigned duties related to CSMRI Board of Trustees.

Subject:
Ratification of assigned duties related to CSMRI Board of Trustees.

Background Information:

The Articles of Incorporation for CSMRI calls for membership on its Board of Trustees of a Trustee of the Colorado School of Mines, the President of the Colorado School of Mines, the Vice President for Business Affairs and a faculty member of the School. The school has filled these positions as requested, and the individuals have served in fulfillment of their duties as a Trustee or an employee.

It is requested that the Board ratify and confirm that the performance of these duties is a part of the individual's duties as Trustee or employee.

Action Motion Requested:

The Board of Trustees hereby ratifies and confirms its intent that a Trustee selected by this Board, the President, the Vice President for Business Affairs and an elected representative of the faculty serve on the Board of Trustees of the Colorado School of Mines Research Institute as a part of the duties and responsibilities of service as trustee or employee of the Colorado School of Mines.

RECORD OF PROCEEDINGS

Golden, Colorado
November 14, 1986

The Board of Trustees met in regular session on November 14, 1986, at 9:00 a.m.

Trustees present: Mrs. Allen, Messrs. Earnest, Henderson, Pascoe, Schwartzberg, Warren, Wilson and Wood.

Also attending the meeting were President Ansell, Vice Presidents Golden, Nyikos, Robbins and Scott, Deans Gentry and Romberger, Prof. Dendy Sloan, faculty representative to the Board, other staff members, and visitors.

Mr. Wood presided.

Announcement. Mr. Wood reminded the Board that the December Board meeting is scheduled for Friday, December 19, at 9:00 a.m.

Previous Minutes. The minutes of the meeting held on October 10, 1986, were approved as distributed.

Mr. Schwartzberg entered the meeting at this time.

Amendment to Minutes of June 28, 1986. At the June 28, 1986 Board meeting, the Board of Trustees, in executive session, discussed the matter of ratification of assigned duties related to CSMRI Board of Trustees. Following that discussion, the Board returned to open session and unanimously approved the following motion:

The Board of Trustees hereby ratifies and confirms its intent that a Trustee selected by this Board, the President, the Vice President for Business Affairs and an elected representative of the faculty serve on the Board of Trustees of the Colorado School of Mines Research Institute as a part of the duties and responsibilities of service as trustee or employee of the Colorado School of Mines.

The Board unanimously approved the motion to amend the minutes of June 28, 1986 to reflect the above action.

New Faculty Appointments. Dr. Gentry presented the report as follows:

Mr. Jerry L. Clayton Part-time Instructor in Chemistry and Geochemistry	\$1,425 for the fall semester of the 1986-87 academic year
Dr. James E. Schroeder Adjunct Assistant Professor of Engineering	\$6,000 for the 1986-87 academic year

RECORD OF PROCEEDINGS

2

Ms. Mathilda Varban
Part-time Instructor in
Humanities and Social
Sciences \$1,920 for the
fall semester of
the 1986-87 academic
May 8, 1987

Reappointment after Interruption:

Mrs. Marianne Czuper
Part-time Instructor in
Physical Education \$1,000 for the
1986-87 academic
year

Dr. Thomas J. McInerney
Adjunct Associate Professor
of Humanities and Social
Sciences \$2,500 for the spring
semester of the 1986-
87 academic year

Dr. Douglas W. Waples
Adjunct Professor of
Chemistry and Geochemistry \$3,600 for the fall
semester of the 1986-
87 academic year

Continuation of Appointment:

Mr. Earl K. Madsen
Adjunct Professor of
Mineral Economics \$4,500 for the 1986-
87 academic year

Dr. Ronald Knoshaug
Research Associate Professor
of Geophysics \$33,900 for the 1986-
87 academic year

Additional Information:

Dr. Frederick B. Bart
Contract addendum to his appointment as part-time
Instructor in EPICS - October 1, 1986 - December 19,
1986 (\$4,000)

Graduate School Admissions. Dr. Romberger reviewed the Graduate Student Admissions report for spring 1987. Dr. Romberger informed the Board that there do not appear to be any significant changes from previous years, except we are slightly ahead in students admitted in 1986. He pointed out that the large number in the Executive Program is the result of deferring the start of the second group from October to January. The strongest departments in terms of enrollment continue to be Geology and Geophysics.

Enrollment. Mr. Spaulding reviewed the enrollment report for the fall semester, 1986-87. He explained that the report is a series of tabulations of enrollment by class, option, Colorado residents, residents of other states, territories and foreign countries. Also included was a credit hour count by academic department.

Mr. Pascoe entered the meeting at this time.

November 14, 1986

RECORD OF PROCEEDINGS

3

Dr. Nyikos and Mr. Young discussed projected enrollment figures and the basis for these projections.

Extensive discussion ensued regarding recruitment, and job placement. A brochure on student life, which is being sent to potential students, was distributed.

Sabbatical Report. Professor Charles S. Aldrich, Assistant Professor of Petroleum Engineering, who was on academic leave for the 1985-86 academic year at one-half pay, presented his report. He informed the Board that he was asked by the National Cheng Kung University in Taiwan and the University of New South Wales in Australia to assist them in establishing petroleum engineering programs. He spent time at both universities teaching and helped set up laboratory at the University of New South Wales. He stated that his wife accompanied him, and he discussed their experiences in both countries.

Mr. Wood thanked Professor Aldrich for his report.

New Research Awards. Dr. Romberger reviewed the report containing the new award volume through October 1986. The volume for the month of October was \$778,613, resulting in a cumulative total for FY 1987 of \$3,360,952. This compares with \$2,372,526 for FY 1986, or an increase of \$988,426. Nineteen different faculty members have received awards and no one project or source accounts for more than thirteen percent of the total. Principal investigators come from the established research community as well as newly hired faculty.

Dr. Romberger reported that during the month of October, twenty-five proposals were submitted, resulting in a total to date of eighty-six for FY 1987. The total for the same time period in FY 1986 was sixty-three proposals. The total dollar value of proposals written to date for this fiscal year is greater than \$31 million.

Proprietary Information in Thesis Research. Dr. Romberger explained that, as a state-supported institution, the Colorado School of Mines has always taken the position that information gained through thesis and dissertation research is available to the public at the time of publication of these documents, or before. The current CSM Bulletin (p. 64, para. 2) contained the following statement:

An advanced degree will not be granted by Colorado School of Mines unless the thesis describing the research is made public property in the sense that immediately upon completion of the work, it is deposited in the Library of Colorado School of Mines and made accessible to all interested persons and to the public. Research of a confidential nature cannot be accepted for credit.

Dr. Romberger informed the Board that the environment in which sponsored research is conducted is changing such that there is an increase in opportunities to obtain funds for

RECORD OF PROCEEDINGS

4

conducting research of a proprietary nature. This has been done on a small scale on campus in the past. However, either thesis or dissertation research was not involved, or there was a clear understanding between the sponsor, principal investigator, and student on what was to be included in the thesis or dissertation. It is easy for the School to avoid such research. However, some initiatives appear to be very attractive and of such a benefit to the researcher and the School that they cannot be ignored. Such opportunities have occurred from the private sector recently and it is likely that the future will bring additional opportunities in the proprietary research area both from corporate areas and government agencies.

Dr. Romberger believes that in order to take advantage of these opportunities it is time for the School to reevaluate its policies toward proprietary research, and possibly modify the statement in the Bulletin to reflect the results of this reevaluation. The guidelines for conducting proprietary research at Colorado School of Mines should be flexible enough so that agreements between the sponsor and the School can be project-specific. However, such guidelines shall be established such that the progress of the graduate student is not impeded in any way. Under no circumstances will the research, thesis preparation, thesis defense, and graduation of the student be delayed. The requirement that the thesis defense be open to the public shall not be violated. Finally, the student may not be supported from State funds while conducting research. Any agreement established between the sponsor and the School must be signed by the sponsor, principal investigator, and the student(s) involved.

Dr. Romberger explained that the Graduate Council is working on a catalog change to reflect a new policy toward proprietary research. The Council must then get the approval of the President, the faculty, and the Board of Trustees.

Dr. Romberger stated that this is an information item at this time, and that more information will be forthcoming in the future.

Monthly Reports. Mr. Scott reviewed the monthly reports as follows: Current Funds Revenues, Expenditures and Other Changes for the Four Months Ending October 31, 1986; Colorado School of Mines Auxiliary and Self-Funded Activities for the Four Months Ending October 31, 1986; and Time Deposits and Investment Report, October 31 1986. It is his belief that we are operating within the revenues projected for the 1987 fiscal year. Mr. Scott informed the Board that as a part of a state-wide spending restriction CSM will set aside \$156,000.00 from the general fund.

Department Name Change. Dr. Copeland informed the Board that the faculty of the Department of Metallurgical Engineering recommends that the name of that department be changed to The Department of Metallurgical and Materials Engineering and that the degree title be changed to reflect this action. This is in keeping with the new curriculum which that department is developing. Dr. Copeland stated that they will be

RECORD OF PROCEEDINGS

5

broadening the emphasis to the development and processing of a wider range of materials. He believes that this will help to increase the enrollment at Mines.

President Ansell recommended approval of both requests, and stated that the degree title change will require the approval of the Colorado Commission on higher education.

The Board unanimously approved the requests of the faculty of the Metallurgical Engineering Department to change the name of that department to The Department of Metallurgical and Materials Engineering and to change the degree title to reflect this action.

Report from Faculty Representative. Dr. Sloan reported that on October 24 the Colorado Faculty Advisory Council to the CCHE met in Denver. Sixteen schools were represented, and each attendee was the chairperson of the faculty senate, council, assembly, etc., or the faculty representative to the school governing body. At the end of that meeting each attendee was asked to give a one sentence summary of the one item which most concerned the faculty at that institution. The four major responses were as follows:

Twenty-five percent of the attendees were most concerned over severe financial restrictions to the point of extinction.

Forty-four percent were most concerned about faculty participation in governance and shaping the School's direction.

Nineteen percent were most concerned about faculty salaries and how salaries were administered.

Nineteen percent listed primary concerns directly related to education.

Dr. Sloan said that if such statements truly represent our faculty, they indicate that our concerns are not primarily in either school survival, personal hygenic salary needs, or how to participate in governance. The concerns of our faculty seem to him, for the most part, to be on a somewhat higher level, that is, how to go about being a better educator/scholar. While these concerns sometimes loom very large (as indeed they are) from an introspective standpoint, they seem to be very healthy from the standpoint of the Colorado faculty taken as a whole.

He complimented the present administration and the Board for playing a major part in allowing the faculty to concentrate on the real job at hand.

Mr. Wood thanked Dr. Sloan for his report.

Program Discontinuance. Dr. Golden informed the Board that the CCHE is presently involved in program discontinuance discussions throughout the State of Colorado.

RECORD OF PROCEEDINGS

6

They have asked that all institutions have policies in place by early December to deal with the issue of treatment of faculty associated with programs that are discontinued. Although Mines has four degree programs that may be terminated by the CCHE, we will not have any faculty dislocations because of these actions. Dr. Golden told the Board that the administration has asked for a deferment until the Faculty Handbook revisions are completed in spring 1987.

Petroleum Engineering Department Advisory Committee.
Dr. Golden informed the Board that President Ansell has approved the following people to serve on the Petroleum Engineering Department's Advisory Committee:

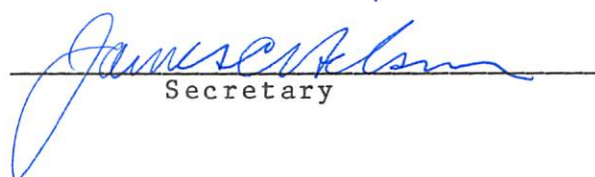
Lloyd Elkins, Jr., V.P. for Chevron
Steve Chesebro, V.P. for Tenneco
Buck Curtis, V.P. for Conoco
Paul Wichman, Chief Engineer for Sohio
Lonny Towell, President, Kerr-McGee
Neal Schmale, Dir. Corp. Econ. for Union
Bob Johnson, President of HBP
Bob Carlisle, PE Chairman, Texas Tech.
Ron Lewis, V.P. for Pennzoil
R. J. Criswell, Amoco
Chuck Earlougher, consultant
Neil Bush, JNB Exploration

Discussion ensued, following which the Board unanimously approved the nominees listed above to serve on the Petroleum Engineering Department's Advisory Committee.

Residency Status - Active Duty Members of Armed Forces and Their Dependents. Dr. Golden informed the Board that the 1986 Session of the General Assembly enacted Senate Bill No. 2, authorizing the governing boards authority to grant resident tuition status to members of the Armed Forces of the United States or their dependents who qualify by moving to Colorado on a permanent change-of-station basis. The Legislature did not appropriate support for the FTE resulting from this reclassification for the 1986-87 academic year.

The Board unanimously approved the motion that CSM grant in-state tuition status to persons eligible under this statute, beginning with the Summer Session of 1987.

The meeting was adjourned at 10:45 a.m., and the Board went into executive session.


Secretary

November 14, 1986

RECORD OF PROCEEDINGS

Golden, Colorado
December 19, 1986

The Board of Trustees met in regular session on December 19, 1986, at 8:00 a.m.

Trustees present: Mrs. Allen, Messrs. Earnest, Henderson, Pascoe, Schwartzberg, Wilson and Wood.

Absent: Mr. Warren.

Also attending the meeting were President Ansell, Vice Presidents Golden, Nyikos, and Scott, Mr. Robbins, Executive Director of the CSM Foundation, Deans Gentry, Olson and Romberger, Prof. Dendy Sloan, faculty representative to the Board, other staff members, and visitors.

Mr. Wood presided.

Previous Minutes. The minutes of the meeting held on November 14, 1986, were approved as distributed.

New Faculty Appointments. Dr. Gentry presented the report as follows:

Mr. Willy Schaller Part-time Instructor in Physical Education and Athletics	\$2,000 for the period August 19, 1987 - October 23, 1987
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Reappointment after Interruption:

Dr. David A. Stephenson Adjunct Professor of Geological Engineering	\$2,100 for the fall semester of the 1986-87 academic year
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Dr. Richard Harlan Adjunct Associate Professor of Geological Engineering	\$2,100 for the fall semester of the 1986- 87 academic year
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Dr. Douglas W. Waples Adjunct Professor of Chemistry and Geochemistry	\$3,600 for the fall semester of the 1986- 87 academic year
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Continuation of Appointment:

Ms. Joanne Greenberg Adjunct Assistant Professor of Humanities & Social Sciences	\$2,500 for the spring semester of the 1986- 87 academic year
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Ms. Nadia Turk Part-time Instructor in Humanities & Social Sciences	\$5,000 for the spring semester of the 1986- 87 academic year
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RECORD OF PROCEEDINGS

2

Dr. Stephen Hotchner	\$5,000 for the spring
Adjunct Professor of	semester of the 1986-
Humanities & Social Sciences	87 academic year

Additional Information:

Dr. Gentry had distributed quantitative evaluation reports to the Board members prior to the Board meeting.

Graduate School Admissions. Dr. Romberger reviewed the Graduate Student Admissions report for spring 1987, through December 15, 1986. Dr. Romberger informed the Board that applications, the number of completed files and acceptances are ahead of the previous year. However, this increase includes a new class of eighteen starting in the Executive Program. The new Professional Degree program continues to be of interest. In addition Geology and Geophysics remain the strongest departments in terms of numbers of applications. The former department potentially could have accepted more students except for the concern that they would not be capable of advising many more students with the existing faculty size. There will be a slight decline in the total number of graduate students from the fall semester because of the large number of graduate students graduating (105). In January, a final report for the spring semester admissions will be presented along with the first report for fall 1987.

Admissions. Mr. Young reviewed the December 15, 1986 Admissions Report. Mr. Young and Dr. Chevront discussed the freshmen students who will not be returning for the second semester.

New Research Awards. Dr. Romberger reviewed the report containing the new award volume through November 26, 1986. The volume for the month of November was \$405,265, which is quite good considering this month has traditionally been a low volume month. This volume results in a cumulative total for FY 1987 of \$3,766,217, or \$1,365,691 ahead of last fiscal year's total of \$2,400,526. Eight different faculty were involved in seven different projects; however, two projects constituted three-fourths of the volume, and nearly sixty percent of the volume for this month represents continuations of previous projects.

Dr. Romberger reported that twelve proposals were submitted during the month of November 1986, compared to sixteen for the same month the previous year. This results in a total to date of ninety-eight proposals for FY 1987 compared to seventy-nine for the same period the previous year. The total dollar value to date is \$33,936,659; however, this includes the \$21 million for the Center for Advanced Mining Systems.

Monthly Reports. Mr. Scott reviewed the monthly reports as follows: Current Funds Revenues, Expenditures and Other Changes for the Five Months Ending November 30, 1986; Colorado School of Mines Auxiliary and Self-Funded Activities for the Five Months Ending November 30, 1986; and Time Deposits and Investment Report, November 30 1986.

December 19, 1986

RECORD OF PROCEEDINGS

3

Increase in Graduation Fees for Graduate Students. Dr. Romberger reported that at the December 3, 1986 meeting of the Graduate Council, Council voted to increase the graduation fee for each graduate student to cover the cost of binding an additional copy of the thesis or dissertation for the thesis adviser. There is no School requirement that the adviser receive a bound copy of the thesis up to this time. However, a number of faculty considered this to be a proper courtesy, especially considering the increased emphasis on graduate research and education. Therefore, this was brought to Graduate Council and the motion passed unanimously.

Dr. Romberger informed the Board that at the present time the graduation fee is \$100.00. The binding of an additional thesis copy will cost \$12.00. Therefore, he is requesting an increase in the graduation fee to \$112.00 to be effective spring semester, 1987.

The Board unanimously approved the request to increase the graduation fees for graduate students from \$100.00 to \$112.00.

Sabbatical Report. Dr. Maynard Slaughter, Professor of Chemistry and Geochemistry, who was on leave during the 1985-86 academic year at one-half pay, presented his report. He stated that he spent his sabbatical in Wyoming, where he wrote two proposals, one of which was funded. He discussed the work which he accomplished while on his sabbatical, and stated that he was attempting to set up a program at the University of Wyoming when the price of oil dropped drastically. Therefore, he was not able to accomplish this project.

He felt that his sabbatical will be valuable to Mines due to the contacts he made while he was on academic leave.

Mr. Wood thanked Dr. Slaughter for his report.

Report of Faculty Representative. Dr. Sloan reported that last month, after considering Mr. Wilson's question of the basis of faculty sample size for his report, he set about visiting a faculty meeting in each department to determine the concerns which they believe should be taken to the Board. As a result of visiting eight academic departments, he felt that faculty members were not reluctant to express their true feelings. There appears to be a consensus on several issues, two of which are (1) the cost of doing research and (2) the need for better communication between the administration and the faculty.

Dr. Sloan believes that the administration has made some efforts to address both of these problems of research costs and communication needs, but he believes that these efforts need to be further extended. He believes that the faculty uniformly seem to recognize that the Board has the best interests of the School at heart and is making an exceptional effort. Dr. Sloan stated that the administrator evaluations are being eagerly awaited by the faculty.

December 19, 1986

RECORD OF PROCEEDINGS

4

President Ansell commented on Dr. Sloan's report, and discussion ensued.

Mr. Pascoe entered the meeting at this time.

Placement Report. Dr. Chevront reviewed the update on placement of 1985-86 graduates.

Emeritus Appointments. Dr. Golden reported that two faculty members, Dr. George V. Keller of the Geophysics Department, and Dr. Joseph J. Finney of the Geological Engineering Department, have announced their intention to retire. Both meet the requirements for emeritus status under the Faculty Handbook (Tenth Edition, August 1982). Dr. Golden recommended Board approval of these emeritus appointments.

The Board unanimously approved the emeritus appointments of Dr. Keller and Dr. Finney.

Resignations. Dr. Golden stated that our legal counsel has recommended that a resolution allowing the President to accept resignations be approved by the Board of Trustees. The Resolution reads as follows:

The Trustees of the Colorado School of Mines hereby delegate to the President of the Colorado School of Mines the authority to accept resignations of all exempt CSM staff. A resignation shall be effective when accepted in writing by the President or on such other date as the President may designate.

The Board unanimously approved the above Resolution.

Voluntary Faculty Early Retirement Program. Dr. Golden informed the Board that this program which was initially discussed at the November Board meeting has been finalized and submitted to the Controller for comments. A copy of the program as revised by our representative from the Attorney General's Office is appended hereto.

Dr. Golden cautioned the Board that this is an expensive program and will cost the School approximately \$100,000. However, he believes that it is a good investment and recommends approval.

The Board unanimously approved the Program.

Sabbatical Requests. Dr. Golden reported that he has four requests from faculty members who wish to be considered for sabbatical leaves for the 1987-88 academic year.

December 19, 1986

RECORD OF PROCEEDINGS

5

Dr. Don L. Williamson of the Physics Department would spend his sabbatical year working with the Solar Energy Research Institute.

Dr. Franklin D. Schowengerdt plans to spend a year working at the National Bureau of Standards in Gaithersburg, Maryland.

Dr. Craig W. Van Kirk is requesting a one-half time sabbatical leave. He would spend his leave time working on curriculum, joint research projects, alumni matters, and updating himself technically.

Dr. Gerard P. Martins of the Metallurgical Engineering Department is requesting a sabbatical for the fall semester only and would spend that semester at the University of California at Berkeley working on two ongoing research projects.

The Board unanimously approved the Sabbatical Requests.

Candidates for Degrees. Distribution was made of lists of candidates for degrees as recommended by the regular and graduate faculties, copies of which are appended hereto.

Upon motion made, seconded and unanimously passed, the candidates were approved for degrees on the dates specified, subject to the completion of all academic requirements and continued compliance with school requirements and regulations.

CSM/CSMAA/CSMF Cooperation Committee Proposals. President Ansell pointed out that the new quarterly publication, Mines Today, is published for alumni and friends of the Colorado School of Mines by the CSM Public Affairs Department. The decision to publish this quarterly newspaper was made by a sub-committee of the major Cooperation Committee.

President Ansell informed the Board that the last meeting of the Cooperation Committee took place on April 30, 1986. At that meeting Mr. Zehr and Mr. Robbins were instructed to redraft the proposal showing the committee's recommendations. Copies of this draft were distributed to the Board members prior to the meeting. Mr. Zehr stated that he believes these are solid recommendations for consideration and hopes that the Alumni Association Board as well as the other Boards will take appropriate action. He emphasized that these are not personal recommendations, but are suggestions by the respective Boards. President Ansell stated that the Board is not being asked to take any action on these recommendations today. He suggested that the Board consider extending its meeting of February 13 in order to discuss this proposal.

The Board also agreed to begin its January 9, 1987 meeting at 8:00 a.m. and to meet through lunch so that there will be ample time to discuss legislative matters.

December 19, 1986

RECORD OF PROCEEDINGS

6

NAIA Policy on Substance Abuse. Dr. Chevront informed the Board that the following philosophy statement was formulated by the Ad-Hoc Committee for the NAIA Policy on Substance Abuse. The NAIA requires that a philosophy statement be established and submitted by January 1, 1987. The education and screening program must be in place by January 1, 1988.

Institutional Philosophy Statement.

The Colorado School of Mines feels that drug use poses a serious threat to the health and welfare of anyone involved in the use of illegal drugs. This threat includes the possibility of lessening academic performance, estrangement of social relations, and creation of mental and physical problems, and in some cases, the possibility of bodily injury, illness and death. Thus the Colorado School of Mines' position on drug use is that all students must comply with Colorado and Federal laws concerning the manufacture, possession, sale, and use of drugs. The possession, use, sale, or distribution of narcotics or dangerous drugs, as defined by state and federal laws, may result in dismissal from the School. Student athletes, as part of the student population, are subject to the same rules and disciplinary actions as other students.

The Colorado School of Mines offers, through its Student Development Center, proactive alcohol and drug abuse programs designed to educate students to the dangers of substance abuse. These programs are supplemented by a newly added drug education component of the freshmen general physical education course.

Mr. Pascoe moved approval of the Institutional Philosophy Statement if the last sentence of the first paragraph is amended to read: "All students are subject to the same rules and disciplinary actions." The Board unanimously approved the Institutional Philosophy Statement, as amended.

Undergraduate Degree Title Change. Dr. Golden informed the Board that the Department of Chemistry and Geochemistry recommends that the undergraduate degree title, Bachelor of Science (Mineral Engineering Chemistry), be changed to read, Bachelor of Science (Chemistry). Dr. Kennedy believes that the new title will eliminate much confusion caused by the current degree title. He also believes that the new title will describe the program more accurately than the current title, Mineral Engineering Chemistry.

Dr. Golden cautioned the Board that this is an item of concern to the CCHE, and he believes that we should wait to approach the CCHE until such time as this can be negotiated with the Commission.

RECORD OF PROCEEDINGS


7

The Board unanimously approved the recommendation that the undergraduate degree title in the Department of Chemistry and Geochemistry be changed to read Bachelor of Science (Chemistry).

The meeting was adjourned at 10:15 a.m., and the Board went into executive session.

Dean of Research. Following discussion in executive session, the Board approved the appointment of Dr. David Olson as Dean of Research at a salary of \$55,298.00 for the academic year. In addition to his title of Dean of Research, he will also carry the title Vice President for Research Development for the purpose of entrepreneurial endeavors.

Faculty Agreement. Following discussion in executive session, the Board unanimously approved a legal agreement which has been signed by Dr. Betty J. Cannon concerning her status in regard to promotion and tenure. A copy of the agreement is appended hereto.


Secretary

December 19, 1986

TO: Department Heads
FROM: John O. Golden *John O. Golden*
SUBJECT: Voluntary Faculty Early Retirement Program
DATE: December 5, 1986

I plan to ask the trustees to formally approve the attached early retirement program at their meeting on December 19, 1986. Please make sure that all of your eligible faculty are aware of the program. If the plan is approved by the trustees, it will be offered to interested faculty on a trial basis during the period December 20, 1986 through March 15, 1987.

After the beginning of next semester, Dr. Jim Gary has agreed to be available to assist faculty interested in early retirement, either through the Interim Appointment described in the attachments or through the Transitional Appointment which has been in place for some time. Through Dr. Gary, faculty members may discuss this matter in privacy without the need to inform either their department head or the administration until they are reasonably sure of their plan.

copies: Dr. Gary
Mr. Scott
Mr. Ingels
Dr. Nyikos
Dr. Weber
Dean Gentry
Dean Romberger
Dean Olson
President Ansell

Draft

COLORADO SCHOOL OF MINES

Voluntary Faculty Early Retirement Program

A faculty member who retires from full-time employment and meets the requirements for the early retirement program may request participation by giving three months' written notice prior to the expiration of his/her current contract. (The three-month notice is waived for spring of 1987.)

The decision whether to grant early retirement pursuant to the program is at the sole discretion of the school.

Interim Appointment

The faculty member must retire and may work in his/her area of employment, or in an area mutually agreed upon, for 84 days during the period following the date of official retirement. The interim employment must be completed within twelve months after the official date of retirement. The retiree will receive compensation according to the chart below. (This is a one-time option, and work performed after the first year, if any, will be at regular part-time rates and at the option of the school.)

Interim Retirement Pay Rates

<u>Age</u>	<u>Percent of the Final Daily Rate of Pay Per Day Worked</u>	<u>Service Factor*</u>
50	250% x Daily Rate Per Day Worked	.625%
51	240	.60
52	230	.575
53	220	.55
54	210	.525
55	200	.50
56	190	.475
57	180	.45
58	170	.425
59	160	.40
60	150	.375
61	140	.35
62	130	.325
63	120	.30
64	110	.275
65	100	.25

Special Project

The faculty member must retire and may work on a special project as mutually agreed upon for up to 84 days during the period following the date of official retirement. The special project must be completed within twelve months after the official date of retirement. The compensation rate for such a project will be negotiated individually and may be lower than that specified for an interim appointment. (This is a one-time option, and work performed after the first year, if any, will be at regular part-time rates and at the option of the school.)

*Multiplying the service factor by the number of years of service with CSM yields an additional percentage factor to be added to the percent of the final daily rate of pay per day worked.

COLORADO SCHOOL OF MINES

Draft

Eligibility for Early Retirement

Full-time regular contractual faculty and administrators become eligible for early retirement benefits as follows:

1. The employee must retire to receive early retirement benefits.
2. The employee is 50 through 64 years of age.
3. The employee has completed at least three (3) years of full-time regular continuous service with the Colorado School of Mines immediately prior to early retirement.
4. Financial obligations of the State of Colorado payable after the current fiscal year are contingent on funds for that purpose being appropriated, budgeted, and otherwise made available.
5. This is a one-time option only. The employee who selects it is considered retired at the conclusion of his/her special project or interim retirement and shall have no expectation of continued employment at the conclusion of this period. This option is strictly voluntary on the part of the employee.

COLORADO SCHOOL OF MINES

Draft

GENERAL PROVISIONS

1. The age of the faculty member on the effective date of retirement will be used in determining the amount of the daily rate of pay. Percentage rates shown are in effect if the retiree retires on his/her birthday. Percentage is then prorated to the percentage of the next birthday (i.e., a retiree who is 55.5 years of age on the day of retirement would be paid at the rate of 195 percent).
2. The daily salary rate will be determined by the annual salary rate at the time of retirement excluding overtime, overloads, housing allowance, auto allowance, supplemental and summer appointments.
3. In the event of the faculty member's death or disability prior to having received full payment based on number of days worked, the employee's designated beneficiary will receive all unpaid payments in accordance with the original payment plan, prorated to days worked.
4. If no beneficiary has been designated, any remaining early retirement payments will be paid in one lump sum to the estate of the employee.
5. Daily rate of pay is determined as follows:
 - a. Twelve-month administrator's daily rate of pay will be determined by dividing the annual contract's base pay by 226 (days).
 - b. Nine-month faculty daily rate of pay will be determined by dividing the nine-month base pay contractual amount by 166 (days).
6. All faculty members will have to go on a special interim appointment contract.

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December 19, 1986

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Clay Willard Stucki
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Walter E. Mata
Elizabeth Lewis McKittrick
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Michael Patrick Riendeau
Baltazar Rizzo
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Steven Paul Manciangli
Susan Lynn Mann
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Kamarul Azman Bin Ismail
*John Louis Jirikowic
Peter Harlan Kendrick
Agnieszka Katarzyna Kubas
Tamra Lee Lester
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Stephen Dix Whidden
Daniel Scott Wilkinson
Karen Jean Williamson
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Valencia Louisa Barree
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Kimberly Sanborn
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Brenda Lea Tingle
Samuel Dale Urton
Richard Lawrence Walsh, III
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Edwin Scott Wharton
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12/1/86
FINAL LIST

MASTER OF ENGINEERING

MASTER OF SCIENCE

December 1986

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Department Head

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(Engineer of Mines)

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Gonzalo O. Davila Poblete

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Denver, Colorado
Lima, Peru

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(Petroleum Engineering)

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Tulancingo, Hidalgo, Mexico

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Jin-Hoo Kim

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Changshu City, China

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(Mineral Economics)

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Debre Berhan, Ethiopia
West Point, New York
Lakewood, Colorado

PROFESSIONAL DEGREE (GEOPHYSICAL ENGINEER)

Lawrence Lee Nelson
Barbara Ann Reed
Ali Khalifa Ali Saif

CSM
BOARD OF TRUSTEES
AGENDA ITEMS

Date of Meeting 12/19/86
Item Number 18-d
Presented By Golden

Subject: Faculty agreement

Background Information:

A legal agreement has been signed by Dr. Betty J. Cannon concerning her status in regard to promotion and tenure (copy attached).

Action Motion Requested:

Request motion for approval.

AGREEMENT

COME NOW the Colorado School of Mines (CSM) and
Dr. Betty J. Cannon and for their agreement state as follows:

WHEREAS, Dr. Cannon served CSM as a temporary instructor of humanities and social sciences from the fall of 1978 through the spring, 1981, and an assistant professor of humanities and social sciences from the fall of 1981 to the present, and

WHEREAS, the parties wish to clarify Dr. Cannon's status with respect to promotion and tenure.

NOW THEREFORE, in consideration of the mutual promises set forth herein the parties state and agree as follows:

1. CSM will retain Dr. Cannon as an assistant professor of humanities through the 1987-88 academic year.
2. CSM will review Dr. Cannon's qualifications for tenure and promotion to the rank of associate professor pursuant to the provisions of the Handbook during the 1987-88 academic year. In the event that in CSM's judgement, she does not qualify for promotion and tenure, CSM will provide her with notice that it will not renew her employment beyond the 1988-89 academic year by June 1, 1988. The notice of nonreappointment will be as provided at p. 2-25 of the Handbook for faculty without de facto tenure.
3. Although CSM has no present intention of dismissing Dr. Cannon for cause, nothing in this agreement shall be construed to prevent it from doing so at any time, if such cause arises, as provided at pp. 2-24 to 2-30 of the Handbook for mid-contract dismissal of nontenured faculty.

4. Both parties warrant that they have entered into this agreement voluntarily, with full knowledge of their legal rights herein.
5. This agreement is not effective until ratified by the GSM Board of Trustees.

George S. Ansell
 DR. GEORGE S. ANSELL, President
 Colorado School of Mines

11/17/86
 DATE

Betty J. Cannon
 DR. BETTY J. CANNON

11/13/86
 DATE