

SENATE MEETING

THURSDAY, DECEMBER 9, 1965

3:30 P.M.

MURPHY HALL AUDITORIUM

The voting membership of the Senate totals 172 including the President and 171 elected members. For a quorum, a majority of the voting membership (87) must be present. Constitution changes require advance publication and 115 affirmative votes. By-Law changes require 87 affirmative votes. Other actions require only a simple majority of members present and voting. The members of the Administrative Committee are ex officio nonvoting members of the Senate.

All members of the faculty who hold regular appointment as defined in the Regulations Concerning Academic Tenure may be present at Senate meetings and are entitled to speak and to offer motions for Senate action, but may not vote.

Members of standing committees who are not faculty, including student members, may be present at a meeting of the Senate during such time as a report of their committee is under discussion and may participate in such discussion, but shall not have the privilege of making motions or of voting.

A special section will be provided for the seating of such faculty and such members of standing committees.

Provision has been made for the University News Service to send the Senate Docket to the news media in advance of each meeting and to arrange a news conference at the close of each meeting with the vice chairman and others he may designate.

ATTENDANCE RECORD

A roll of elected and ex officio members will be circulated during the meeting. Members will please check their names to indicate their presence. If the list misses you, please stop afterward to check your name. The roll, after adjournment, will be on the rostrum.

An attendance record for nonmembers will also be circulated and will be on the rostrum after the meeting.

As voted by the Senate, a summary of the attendance of members elected for the current academic year will be included in the June minutes.

NOT FOR RELEASE PRIOR TO THE SENATE MEETING

Year 1965-66

No. 2

UNIVERSITY OF MINNESOTA THE SENATE DOCKET

December 9, 1965

Your Committee on Business and Rules respectfully presents the following matters for consideration:

I. MINUTES OF NOVEMBER 4, 1965

Reported for Action

II. SENATE COMMITTEES FOR 1965-66

Reported for Action

The President reports additional appointments as follows:

All-University Council on Liberal Education: Donald K. Smith, chairman, Robert Beck (1965-68), George Blake (1964-67), Norman Kerr (1965-66), Jeanne Lupton (1963-66), William McDonald (1963-66), Edward Ney (1964-67), Arthur Smith (1965-68), Jay M. Smith (1965-67), Frank Sorauf (1965-68), W. D. Spring (1965-68), Richard Swalin (1965-66).

III. NON-SENATE COMMITTEES AND BOARDS FOR 1965-66

Reported for Information

The President reports non-Senate committees and boards and their membership for 1965-66 as follows:

1. ALL-UNIVERSITY COMMITTEES

All-University Advisory Committee for Statistics Center: William Flanigan (chairman), Oswald H. Brownlee, Ralph E. Comstock, Robert J. Falk, Roy Francis, Leonid Hurwicz, Bernard Lindgren, Sanford Lipsky, Scott Maynes, Richard B. McHugh, John Overend, Marvin Stein, Harold W. Stevenson, Constance van Eeden.

Coordinating Council: Add Francis M. Boddy, James H. Hammill, Fred J. Lauerman, William L. Nunn, William G. Shepherd, Hubert J. Sloan, Athelstan Spilhaus, Willard Thompson, R. Joel Tierney, Edmund G. Williamson, E. W. Ziebarth. Delete Bryce L. Crawford.

Group Insurance and Retirement Committee: William B. Lockhart (chairman), John A. Anderson, John E. Anderson, John R. Borchert, Thomas W. Chamberlin, Marcia Edwards, Richard K. Gaumnitz, Stephen Granger, E. Fred Koller, Laurence R. Lunden, William G. Shepherd, Glen V. Taylor, C. Arthur Williams, Jr.

Parking Advisory Committee: Elio D. Monachesi (chairman), Harold B. Allen, James App, C. Luverne Carlson, Shelly Chou, Frank E. DiGangi, Albert M. Fulton, Norman S. Kerr, Elmer W. Learn, Gustave L. Scheffler, Glen V. Taylor. Students: Greg Michelson, Jerome Wendorff.

Single-Quarter Leave Committee: Marcia Edwards (chairman), Francis M. Boddy, Richard Jordan, E. Fred Koller, William A. McDonald, John Neter, William A. Rosenthal, Anne Wirt.

2. ADVISORY COMMITTEES AND BOARDS TO CERTAIN OFFICES AND AGENCIES

Radiation Hazard Control Committee: W. D. Armstrong (chairman), Richard S. Caldecott, Donald W. Cowan, Harry Foreman, Ivan D. Frantz, Jr., Norton M. Hintz, Herbert S. Isbin, C. T. Johnson, Merle K. Loken, Roy V. Lund, Paul R. O'Connor, A. Glen Richards.

Safety Committee: Philip D. Kernan (chairman), Ray F. Archer (ex officio), Donald W. Bates, Robert W. Bridges, Holger Christiansen, William O. Cook, Richard J. Donnelly, Gertrude M. Gilman, Lee Hart, Andrew Hustrulid, Leonard M. Kaercher, Gustave L. Scheffler (ex officio), Warren E. Soderberg, R. Stuart Tobias, Kenneth T. Whitby. Student: Bryan Daniels.

Staff Welfare Fund Committee: Richard C. Jordan (chairman), Ray F. Archer, Ralph F. Berdie, N L Gault, Jr., Robert J. Holloway, Clinton T. Johnson, Keith N. McFarland, Frank F. Pieper, George Seltzer, Warren Soderberg, Chester W. Wood.

IV. DESIGNATION OF ABSTRACTER

Reported for Information

The Senate vice chairman and the chairman of the Faculty Consultative Committee report that they have designated Hyman Berman as abstracter, beginning with the present meeting.

V. REPORT OF THE ADMINISTRATIVE COMMITTEE

1. Reported for Action

1. *University Calendar for the 1966-67 Year.* Recorder True E. Pettengill had as usual sent to all concerned faculty and student groups a draft of the proposed University calendar for the next academic year, 1966-67; it also had been mailed to the deans and directors for their criticism and suggestions. At this meeting he brought to the committee a list of the suggestions received, chief among which were proposals from the All-University Schedule Committee.

Most of the proposed additions or changes in the calendar itself were routine and evoked no discussion; an exception was a proposal from the Schedule Committee to change the starting time and designation of first hour classes. Also, there was comment on a related proposal to schedule classes on the Minneapolis Campus, both East Bank and West Bank, at the same hours, on a 50-15 minute basis, and those at the St. Paul Campus on a compatible 50-10 minute format. This pattern of scheduling, with the longer 15-minute passing time for Minneapolis Campus classes, was recommended to the Administrative Committee April 14, 1965, as a result of a study conducted by a subcommittee of that group under the chairmanship of Professor Nicholas A. Glaskowsky. (The Administrative Committee had, in April, voted to take no action on changing the hour schedules prior to additional consultation and further study by the Schedule Committee as well as by a new special subcommittee under the chairmanship of Prof.

Elmer W. Learn.) The Schedule Committee repeated its earlier recommendation for the following class hour schedule:

Hour	Minneapolis	St. Paul
I	7:10-8:00	7:00-7:50
II	8:15-9:05	8:00-8:50
III	9:20-10:10	9:00-9:50
IV	10:25-11:15	10:00-10:50
V	11:30-12:20	11:00-11:50
VI	12:35-1:25	12:00-12:50
VII	1:40-2:30	1:00-1:50
VIII	2:45-3:35	2:00-2:50
IX	3:50-4:40	3:00-3:50
X	4:55-5:45	4:00-4:50

There was extensive discussion of the advantages and disadvantages of changing the class hour schedule, particularly the advisability of extending the time between classes to 15 minutes, with consequent loss of available instructional time. Representatives of the Institute of Technology indicated opposition of their faculty to such a change, and some other units were also reported as not favoring it. On the other hand, net gains appeared to be possible, both immediately and somewhat longer range, in proceeding with the recommended hour schedule. Further, it was pointed out that a return to similar schedules for both parts of the Minneapolis Campus was planned from the beginning of the West Bank expansion. Student representatives had been involved in the planning of the hour schedule, and their committee which considered the changes believe them to be in the student interest. Although questions were raised about the St. Paul Campus schedule and its relation to the one at Minneapolis, it was noted that the proposal would maintain compatibility between the two schedules and would not materially change the long-standing relationship.

It was moved, seconded, and voted to recommend the class hour changes to the Senate for action, beginning with the 1966-67 academic year. Endorsement for Senate approval carried with a substantial majority, but with less than unanimous support.

It was then moved, seconded, and voted to recommend that the Senate adopt the 1966-67 calendar with the minor changes and routine additions proposed as a result of the recorder's survey. The proposed calendar follows:

UNIVERSITY CALENDAR
ACADEMIC YEAR, 1966-67

Fall Quarter

August 1-September 23		Fall registration. Orientation program for new students. (Dates for the various colleges will be announced in mailed instructions. Students are urged to register early. It is expected that all students who can do so will register in August.)
August 15*		Last day to file application for fall admission to the undergraduate colleges.
August 26*	Friday	Graduate School application deadline for fall quarter.
September 1*		Last day to file fall request for change of college within the University
September 5	Monday	Labor Day, holiday.
September 15	Thursday	Final payment of fall quarter fees due for students registered through September 9; application deadline for Adult Special students.
September 16	Friday	New Students' Camps, September 16-18; New Students' Parents' Day, September 18; Welcome Week (Minneapolis-St. Paul), September 18-23; Orientation and Registration Week (Duluth and Morris), September 19-23.
September 23	Friday	Last day for registration and final payment of fees for the undergraduate colleges (including Adult Special students).
September 26**	Monday	Fall quarter classes begin.
September 29	Thursday	Opening convocation (Minneapolis-St. Paul), 11:30 a.m., 11:30-12:20 classes Minneapolis Campus and 11:00-12:50 classes St. Paul Campus excused.
September 30	Friday	Last day for registration and final payment of fees for the Graduate School and for teachers in service.
October 12	Wednesday	Columbus Day, holiday.
October 15	Saturday	Homecoming Day (Minneapolis-St. Paul; Morris).
October 29	Saturday	Homecoming Day (Duluth).
November 3	Thursday	Senate meeting, 3:30 p.m.
November 11	Friday	Veterans Day, holiday.
November 24	Thursday	Thanksgiving Day, holiday.
November 25-26		Classes excused (except Medical School and College of Veterinary Medicine).
December 1*		Last day to file application for winter admission to the undergraduate colleges or for change of college within the University.
December 5*	Monday	Graduate School application deadline for winter quarter.
December 8	Thursday	Senate meeting, 3:30 p.m.; last class day.
December 9	Friday	Review begins.
December 10-16		Final examination period.
December 17	Saturday	Fall quarter closes. Commencement (Minneapolis-St. Paul), 8 p.m.

Winter Quarter

December 26	Monday	(Sunday, December 25, Christmas Day), holiday.
December 27	Tuesday	Final payment of winter quarter fees due for students in residence fall quarter.
December 27-30		Orientation program; registration and payment of fees for new students in all undergraduate colleges.
January 2	Monday	(Sunday, January 1, New Year's Day), holiday.
January 3	Tuesday	Winter quarter classes begin.
January 6	Friday	Last day for registration and final payment of fees for the Graduate School and for teachers in service.
February 2	Thursday	Senate meeting, 3:30 p.m.
February 22	Wednesday	Washington's Birthday, holiday.
February 19-25		University of Minnesota Week.
February 23	Thursday	Charter Day Convocation (Minneapolis-St. Paul), 11:30 a.m., 11:30-12:20 classes Minneapolis Campus and 11:00-12:50 classes St. Paul Campus excused.
February 24*	Friday	Graduate School application deadline for spring quarter.
March 1*		Last day to file application for spring admission to the undergraduate colleges or for change of college within the University.
March 9	Thursday	Senate meeting, 3:30 p.m.; last class day.
March 10	Friday	Review begins.
March 11-17		Final examination period.
March 16	Thursday	Final payment of spring quarter fees due for students in residence winter quarter in undergraduate colleges.
March 18	Saturday	Winter quarter closes. Commencement (Minneapolis-St. Paul), 8:30 p.m.

Spring Quarter

March 20-23		Orientation program; registration and payment of fees for new students in all undergraduate colleges.
March 24	Friday	Good Friday, holiday.
March 27	Monday	Spring quarter classes begin.
March 31	Friday	Last day for registration and final payment of fees for the Graduate School and for teachers in service.
April 27	Thursday	Senate meeting, 3:30 p.m.
May 10	Wednesday	Cap and Gown Day Convocation (Minneapolis-St. Paul), 11:30 a.m., 11:30-12:20 classes Minneapolis Campus and 11:00-12:50 classes St. Paul Campus excused.

3—Senate Docket No. 2—C-6777

May	15*	Monday	Graduate School application deadline for first term Summer Session.
May	24	Wednesday	Cap and Gown Day Convocation (Duluth), 2:30 p.m., VII hour classes excused.
May	30	Tuesday	Memorial Day, holiday.
May	31	Wednesday	Cap and Gown Day Convocation (Morris), 2 p.m., VII hour classes excused.
June	1	Thursday	Senate meeting, 3:30 p.m.; last class day.
June	2	Friday	Review begins.
June	3-9		Final examination period.
June	4	Sunday	Baccalaureate Service (Duluth), 8 p.m.
June	9	Friday	Baccalaureate Service (Minneapolis-St. Paul), 4 p.m.
June	10	Saturday	Commencement (Duluth), 8 p.m. Spring quarter closes. Commencement (Minneapolis-St. Paul), 7:30 p.m.
June	12	Monday	Commencement (Morris), 8 p.m.

* Other application dates are specified for Veterinary Medicine, Medicine, Dentistry, Dental Hygiene, and Practical Nursing in the admissions section of the *General Information Bulletin*.
 ** Classes begin at 7 a.m. at St. Paul, 7:10 a.m. at Minneapolis, 8 a.m. at Morris, and 8:30 a.m. at Duluth. They are generally 50 minutes in length, although some run 75 minutes. The interval between classes is 15 minutes in Minneapolis and 10 minutes on the other campuses.

GENERAL EXTENSION DIVISION, 1966-67

Fall Semester

September	12	Monday	Registration for fall semester begins.
September	21	Wednesday	Last day for registration, fall semester.
September	26	Monday	Fall semester classes begin.
October	12	Wednesday	Columbus Day, holiday.
November	11	Friday	Veterans Day, holiday.
November	24	Thursday	Thanksgiving Day, holiday.
December	17	Saturday	Christmas recess begins.
December	26	Monday	(Sunday, December 25, Christmas Day), holiday.
January	2	Monday	(Sunday, January 1, New Year's Day), holiday.
January	3	Tuesday	Classes resume.
January	28	Saturday	Fall semester closes.

Spring Semester

January	30	Monday	Spring semester registration begins.
February	8	Wednesday	Spring semester registration closes.
February	13	Monday	Spring semester classes begin.
February	22	Wednesday	Washington's Birthday, holiday.
March	24	Friday	Good Friday, holiday.
May	30	Tuesday	Memorial Day, holiday.
June	10	Saturday	Spring semester classes close.

Extension classes offered on the quarter basis are on the same schedule as day school with registration beginning 2 weeks preceding the opening of classes for the winter and spring quarters.

Correspondence study courses may be started at any time.

SUMMER SESSION, 1967

First Term

June	12	Monday	Orientation and registration for first term.
June	13	Tuesday	First term classes begin; fees due.
June	19	Monday	Graduate School application deadline for second term Summer Session.
July	4	Tuesday	Independence Day, holiday.
July	14	Friday	Classes end at close of VI hour. Commencement (Minneapolis-St. Paul), 4 p.m.
July	15	Saturday	First term closes.

Second Term

July	17	Monday	Registration for second term.
July	18	Tuesday	Second term classes begin; fees due.
August	18	Friday	Classes end at close of VI hour. Commencement (Minneapolis-St. Paul, Duluth), 4 p.m.
August	19	Saturday	Second term closes.

Extension Division and Summer Session final examinations are given at the last class meeting each semester or term.

2. Reported for Information

1. *Report of Committee on University Honors.* The Committee on University Honors, reporting through its chairman Dean H. T. Morse, recommended approval of two honorary degrees to be awarded at the June 1966 Commencement. In addition, it presented documentation for an Outstanding Achievement Award to go to a person sponsored by the College of Liberal Arts. Both of these proposals were voted, subject to action by the Regents.

2. *Report from the University of Minnesota Foundation.* The development of the University of Minnesota Foundation as a major fund-raising organization was reviewed. It was pointed out by Vice President Wenberg that in the past attention had been given to the possibility of employing some full-time staff. Consultants were in agreement that there should be a full-time director who would be located on the campus. Subsequently, Mr. Fred J. Lauerman was engaged to fill this position; he was introduced and invited to speak to the committee. Mr. Lauerman noted that successful fund raising has become a highly sophisticated endeavor and then referred to ways in which he might be helpful in planning proposals, maintaining central files, and developing the possibilities for support. The importance of co-ordinating proposals to major special gift prospects was emphasized. He referred briefly to several projects. General discussion followed, and questions were asked about procedures with endowed professorships or named chairs. The President expressed appreciation of the committee for Mr. Lauerman and his work.

3. *Interpretations of Tenure Regulations.* The Tenure Advisory Committee had proposed additions to the regulations on faculty tenure, interpreting policy and practice with certain types of appointments or changes of appointments or where the faculty member wishes to terminate short of the full term of appointment. The chairman of the advisory committee, Vice President Shepherd, brought the proposals to the Administrative Committee for information and discussion. It was indicated that minor clarifications should be made prior to sending the proposals to the Senate for action.

4. *Preliminary Requests for New Staff, 1966-67.* Vice President Shepherd announced that the usual forms will be sent out requesting projection of the need for new appointments in the 1966-67 year. All needs of the University will be reviewed and it is hoped that by mid-December determinations can be made which will permit the deans to proceed with some of their plans before the end of the present calendar year.

5. *Report on Tuition Scholarships and Teaching Assistantships.* When the present plan for special tuition scholarships and differentiation among teaching assistantships held by graduate students was discussed in the Administrative Committee some time ago, it was understood that the dean of the Graduate School would subsequently report on the experience with and the benefits of the plan. This report was presented in summary form, along with recommendations and the observation that generally the current program has been beneficial. The principal recommendations were that the number of tuition scholarships be increased if funds can be provided; that department chairmen be advised of the funds available at least by December of each year; that recipients of the scholarships and the staff be made fully aware of the intended purposes of these special scholarships; and that there be designated increases in the base pay of every rank of teaching assistant and of the teaching associate.

The committee agreed that there should be further study, centrally, of the total probable costs of the various proposals and of the effect that the recommended improvements would have in different units of the University. No action was taken pending such studies.

6. *Contact with Student Members of Committees.* There was a communication from the Minnesota Student Association indicating that faculty committee chairmen might facilitate contact with student members of their committees by working through the MSA office. The President added his suggestion that student members of University committees should be involved as serious members in every instance.

R. E. SUMMERS, Secretary

(There will be a pause in the proceedings to permit the seating of the non-Senate members of the Committee on Intercollegiate Athletics for the discussion of their report.)

VI. REPORT OF THE COMMITTEE ON INTERCOLLEGIATE ATHLETICS

1. Reported for Action

Scheduling of Football Games

According to Article III, Section 7b of the By-Laws to the Senate Constitution this "committee is responsible, under the authority of the Senate, for all matters of policy pertaining to intercollegiate athletics and for all matters of eligibility of student-athletes, of scheduling intercollegiate contests . . ."

Conference Regulation II prescribes that (1) varsity football games (excluding the Rose Bowl game) may not be played on more than 10 days, beginning no earlier than the next to the last Saturday in September and ending on the Saturday preceding the last Thursday in November; (2) at least seven games must be against members of our conference; (3) no nonconference games may be scheduled in advance of the meeting for making conference schedules.

Due mainly to scheduling practices of some schools which do not belong to conferences and to the common practice of scheduling conference

games in the later part of the season it has become necessary to make schedules for 10 or more years in advance. The 1975-76 schedules for example will be proposed at the December 1965 meetings of the conference. The conference schedule is now developed on a principle of rotation which has found much support; it involves no difficulties. The selection of suitable opponents for nonconference games presents other problems.

At Minnesota it has long been the practice of the director of intercollegiate athletics to enter negotiations for nonconference games after consultation with the Senate Committee on Intercollegiate Athletics. The committee and the director have been guided by a ground rule for scheduling the first game of the season which was established in 1958 (Minutes of the Senate, February 6, 1958, page 61) after the playing of 10 football games, effective in 1965, was first approved by the conference. This expansion of the schedule from 9 to 10 games was subject to institutional review. On recommendation of this committee, the Senate voted in February 1958 "that no objection be filed, with the understanding that the Senate Committee on Intercollegiate Athletics will not approve the scheduling of home games on dates prior to the Saturday before the beginning of classes." This action was confirmed by the Senate in November 1958 when a proposal for a mandatory round-robin conference football schedule came before the conference but was not adopted. At that time it was considered prudent to place the above-mentioned restriction on the date of the first home game until actual scheduling experience gave a better basis for evaluation of its merits. Accordingly the approved schedules arranged for the first football game to be played away from home in 1965, 1966, 1969, 1970 and 1971. Under the formula which now establishes the beginning of classes in the fall quarter, the first games would have to be played away from home also in 1975, 1976, 1977 and 1980.

Experience in making schedules through 1974 has shown that our current restriction places severe limitations on the selection of potential opponents with whom contracts for nonconference games can be successfully negotiated. In this selection the director and the committee are mindful of the preferences of the coaching staff, the over-all impact of the schedule on a sound program of intercollegiate athletics, including gate receipts, the athletic policy of potential opponents, the appeal of the schedule to students, faculty, and friends of the University. It is felt that in light of local and other experience the committee can arrange for more suitable schedules if the current restriction on the site of the first game of the season is removed.

RECOMMENDATION: That the first football game of the playing season, as authorized by conference regulations, may be scheduled at home, earlier restrictions to the contrary notwithstanding.

2. Reported for Information

Approved Schedule

		TRACK 1966
Jan.	29	Freshmen, Varsity
Feb.	5	Northwestern, Drake
	12	Wisconsin—at Madison
	19	Northwest Open
	26	Iowa
Mar.	4-5	Big Ten Conference Indoor—at East Lansing
	5	Minnesota Federation Intercollegiate Time Trials
	26	Western Michigan Relays—at Kalamazoo, Michigan
Apr.	1-2	Texas Relays—at Austin, Texas
	9	Iowa State, Nebraska—at Ames
	16	Northwestern, Indiana—at Evanston
	22-23	Kansas Relays—at Lawrence, Kansas
	23	Intercollegiate Time Trials
	29-30	Drake Relays—at Des Moines
	30	Intercollegiate Time Trials
May	7	Wisconsin
	14	Iowa, Northwestern—at Iowa City
	14	Intercollegiate Time Trials
	20-21	Big Ten Conference Outdoor—at Bloomington
	28	Minnesota State Federation Championship
June	16-18	NCAA Championship—at Philadelphia

A. L. VAUGHAN, Chairman

(There will be a pause in the proceedings to permit the withdrawal of non-Senate committee members.)

VII. REPORT OF THE COMMITTEE ON INSTITUTIONAL RESEARCH

Reported for Information

Examinations and testing dominate the rhythm of University life for both students and faculty. More students, more years spent in formal education, and higher standards have all combined to influence examination practices. Yet very little is known about the actual range of variations in types of examinations used or the relationship of different examination methods to specific courses or disciplines.

About a year ago the Senate Committee on Institutional Research decided to undertake a University-wide study of examination practices. It was agreed that a first phase of the study should focus on undergraduate courses, a second phase on graduate examinations of all types. The Bureau of Institutional Research was directed to design and carry out both studies.

The bureau has spent the past year developing and refining a survey form to be sent to all teachers of undergraduate courses. It has had the benefit of assistance and critical comments from a special Faculty Advisory Committee selected from the faculty at large, as well as guidance from this parent Senate committee. A number of faculty members have also assisted in pilot-testing a survey questionnaire and in providing the bureau with opinions and suggestions about the form and the nature of the questions asked.

The survey form is now being reproduced for distribution to faculty on all campuses at the beginning of the winter quarter. Individual faculty members will be asked to describe the examination and other evaluative procedures actually used in courses taught in the fall quarter, 1965. Most of the questions can be answered by check marks, numbers, or a few words. A few discussion questions have been included to elicit opinions about controversial aspects of evaluation.

The purpose of this report is to advise faculty members that the forms will be coming to them early in January 1966, and to urge them to keep their tests, records, and notes from fall quarter courses for easy reference. The Senate Committee on Institutional Research is convinced that this pioneering study will be useful to faculty members in assessing the nature and scope of their testing procedures. It will provide for the first time an overview of the range of examination practices and the frequency of use of various techniques throughout the University as a whole and in its several colleges. It needs to be emphasized that the intent of the study is to learn more about this important part of the University's instructional program, and *not* to establish or even to suggest the establishment of any standardized or prescribed set of procedures.

Because testing and examination procedures are so intimately related to individual instructors, and to subject matter fields, this study has not been developed on a sampling basis. It is based instead on the total faculty involved in undergraduate instruction, to provide the most complete picture possible. It is important to the success of the study that every faculty member provide the information requested. The committee solicits the co-operation of all faculty members.

PHILIP M. RAUP, Chairman

VIII. NEW BUSINESS

IX. NECROLOGY

CYRUS PAINE BARNUM, JR.

1914-1965

With no warning a sudden and overwhelming heart attack on July 26, 1965 took the life of Cyrus P. Barnum, Jr., professor of biochemistry in the College of Medical Sciences. Dr. Barnum was a product of the University of Minnesota and its environment and he spent nearly the whole of his mature life in the service of the University. He was in one person an eminent teacher and investigator, a faculty statesman, and a leader in the development of social and political progress in the community and nation.

Dr. Barnum was born May 18, 1914 in Minneapolis. He attended West High School and graduated as co-valedictorian in 1932. His bachelor of arts degree with a major in chemistry was granted *cum laude* by the University in 1936 and he was elected to Phi Beta Kappa in the same year. Dr. Barnum had developed an interest in underprivileged boys during his own high school days and in the period 1935-37 he was employed on an extensive part-time basis as a case worker with the Big Brother organization in Minneapolis. During the same period, and for a few years afterwards, he was a counselor at Kamp Kitchi Kahniss, the Big Brother Camp on Lake Mille Lacs.

Dr. Barnum entered the Graduate School in 1937 and received the doctorate degree in physiological chemistry (now biochemistry) in 1940. Dr. Barnum was a research fellow at the Scripps Metabolic Clinic, La Jolla, California, in 1940-41 and a Carnegie Foundation Fellow at the University of Minnesota in 1941-42. In 1942 Dr. Barnum was appointed instructor in the Department of Physiological Chemistry and he was promoted through the various ranks as follows: assistant professor, 1945; associate professor, 1946; professor, 1955.

The students and faculty recognized Dr. Barnum to be an unusually effective and stimulating teacher at both the undergraduate and graduate levels. His teaching abilities first became evident during World War II when he carried a particularly heavy burden in the instruction of the cadet nurses who were enrolled in such numbers that the course had to be presented in dual sections. Later he took a prominent role in the instruction of medical students and he was always able to present intricate topics in biochemistry in a manner which captured the interest and understanding of

the students. Dr. Barnum was much sought out by graduate students. He was the major adviser of 18 persons who attained the Ph.D degree and of 8 others who received the M.S. degree. In addition, he was a sympathetic and helpful adviser to a large number of graduate students in fields other than biochemistry in matters of research orientation and in the methodology and interpretation of experiments. He taught, over the last several years, a graduate course in the field of nucleic acids and nucleoproteins which was so outstanding in quality that it was elected, each time it was offered, not only by students of biochemistry but also by graduate students in other medical and biological science departments.

Since the middle 1940's Dr. Barnum devoted his scientific life to the chemical aspects of cell growth and multiplication and with particular reference to cancer. He employed delicate methods for separation of cell constituents and radioisotopes in studies which allowed him to work out the order in which compounds are assembled in the production of DNA, the genetic material in cells. The same general methods were employed to demonstrate the effects of ionizing radiations upon DNA synthesis. More recently he discovered that certain drugs which have been used in the treatment of cancer can be evaluated by their effect on DNA synthesis in animals.

Dr. Barnum was a prominent and much-valued counselor in discussions and determination of University educational and administrative policies. Even though during the last few years of his life, he spent an increasing amount of time in committee work, he never relaxed or slighted his teaching work. At the time of his death he served on the following committees in the College of Medical Sciences: chairman, Cancer Coordinating Committee (training and research grants); chairman, Medical School Faculty Consultative Committee; chairman, Committee for Combined Medical-Graduate Program; and the Dean's Committee for the Minneapolis Veterans Hospital. All-University committees included: chairman, Graduate Medical Group Committee; Executive Committee for the Graduate School; and the Faculty Consultative Committee. Dr. Barnum served two elected terms on the latter committee beginning in 1958 when this committee was first established as a link between the faculty and the central University administration. No more than the constitutionally required year of nonmembership was permitted by the faculty before Dr. Barnum was elected to a third term of service on the Faculty Consultative Committee.

Dr. Barnum found the time and the physical and intellectual energies to aid and support enterprises for the betterment of the community and for the improvement of the lot of the inhabitants thereof, particularly that of the underprivileged and deprived. He took an active part, not only in organizing but in actual work, in a recreational program for children in a public park which attracted children from broken families and from underprivileged groups. In this way he demonstrated his own good citizenship and he, undoubtedly, stimulated qualities of citizenship, which would have otherwise lagged, in the youths with whom he came into contact. He worked on several PTA boards and he served one term as president of the University High School Parent-Teachers Association.

Dr. Barnum had for many years a deep interest in the improvement of the present circumstances and the future of man. He was an active proponent in the Civil Rights Movement in the years before this movement appeared to have any promise of success on the judicial and legislative scenes. He worked as a member of the American Civil Liberties Union and during the 1950's he gave counsel and advice to members of this, and other faculties, whose academic rights were under challenge. In recent years he took an increasingly active interest and role in the work of United World Federalists and he was twice president of the local unit. He spoke and wrote extensively on his conviction that the world must seek a universal peace. He recently prepared and distributed, at his own expense, a booklet entitled *Enforceable World Law: The Alternative Is Oblivion*. Dr. Barnum accepted only with reluctance any military venture and he was especially concerned by what he foresaw would be the consequences of the use of nuclear weapons. These were the reasons that led him to conclude that world law is the only alternative to oblivion of the human race, or at least, of civilization as we would have it be.

Dr. Barnum held membership in the American Chemical Society, American Association for Cancer Research, American Society of Biological Chemists, Society for Experimental Biology and Medicine, American Association for the Advancement of Science, and the Minnesota Academy of Science. In addition to Phi Beta Kappa, he was a member of the scientific honor societies Phi Lambda Upsilon and Sigma Xi.

Dr. Barnum is survived by his wife, Anne, whom he married on May 28, 1938, and by four children. His eldest son, David, is a graduate of Stanford University and is now studying at the London School of Economics. His sons John and Scott are, respectively, students at the University of Minnesota and the University High School. A daughter, Martha, is in her third year of university work at Tübingen, Germany. Dr. Barnum is also survived by his father, Mr. Cyrus P. Barnum, Sr., now of Los Angeles, California, who is the former executive secretary of the University YMCA and the former director of the University International Relations Project. In addition, Dr. Barnum leaves an elder brother, William, of Minneapolis, and a sister, Mrs. Edmund B. Johnson, of Madison, Wisconsin.

HARRY AUGUST DOERINGSFELD
1892-1965

Harry A. Doeringsfeld was born February 20, 1892, at Boscobel, Wisconsin, and died October 10, 1965, in Minneapolis, Minnesota. At the time of his death he was professor emeritus of mechanics and materials in the Institute of Technology, University of Minnesota, having retired in June, 1960. He is survived by his wife, Lila E. Doeringsfeld, who was his childhood sweetheart from kindergarten days, a son, Karl H., a daughter, Mrs. Hermann Haas, of Carbondale, Illinois, and three granddaughters.

He earned the degree of bachelor of science in civil engineering in 1914 at the University of Wisconsin, and the postgraduate degree of civil engineer at the same school in 1916. He was a member of the honorary engineering fraternity, Tau Beta Pi, and his church membership was with the Plymouth Congregational Church of Minneapolis.

Mr. Doeringsfeld's first professional experience was acquired with the Oliver Mining Company at Hibbing, Minnesota, where he worked as a mining engineer from 1916 to 1921. He was employed by the same company from 1921 to 1923 as general track foreman.

His teaching career was wholly served at the University of Minnesota, where he was an instructor in mathematics and mechanics in the Department of Mathematics and Mechanics from 1923 to 1929; assistant professor of the same subjects from 1929 to 1943; associate professor from 1943 to 1946; and professor from 1946 until his retirement.

He was coauthor with Professor Emeritus Forrest Miller of a widely used textbook on the subject of mechanics of materials. He conducted research with the late Professor Frank B. Rowley on the problem of troublesome condensation of moisture within the walls of buildings. He was active during World War II as assistant director of the Naval Training School in Electrical Engineering at the University of Minnesota.

Mr. Doeringsfeld was an unusually gifted teacher, his elucidation of his subject being very skillful, and his presentation of it particularly easy to comprehend.

Notable as were his gifts as a teacher, and these were truly outstanding, it was his contagious zest and enthusiasm for life in all its beautiful ramifications, both as a scholar and outdoorsman, which endeared him to all who had the privilege of knowing him. It was no accident that Izaak Walton was one of his favorite authors; he was one of his lifelong and ardent disciples.

Mr. Doeringsfeld was a humorous man, and one who was deeply appreciative and conversant with English literature.

His memory will live in the minds and hearts of his colleagues, his former students, and his host of friends.

GEORGE FILIPETTI
1890-1965

George Filipetti, professor emeritus of economics, died at the age of 75 on August 22, 1965, in LaJolla, California. He was appointed to the faculty of the School of Business Administration in 1930, coming to the University from the faculty of the School of Business of Columbia University where he received his doctorate in 1925. He specialized in Scientific Management and was recognized as a tower of strength in the fight to make management truly scientific, after this phrase had been exposed to shoddy misrepresentation between the wars. His book *Industrial Management in Transition* is considered to be a classic in management literature and has been translated into several foreign languages.

Professor Filipetti was a pioneer in the integration of professional education in engineering and business. His graduates in the combined engineering-business program at Minnesota were sought after even in the depression of the thirties. He directed the management portion of the path-breaking study of the Upper Midwest economy by the Employment Stabilization Research Institute in the early thirties. He was a member of the faculty of the Biarritz American University at Biarritz, France, serving the armed forces in the immediate post-armistice period. Professor Filipetti was a man of high and uncompromising standards.

Born in New Jersey, August 21, 1890, he became a staunch midwesterner, urging and leading many Minnesota firms in the adoption of modern management methods which would keep them competitive in national markets. To his colleagues, he was a warm friend, a friendly critic, and a staunch supporter of progressive professional education.