

UNIVERSITY OF MINNESOTA
Graduate School

Minutes of the Executive Committee
Thursday, May 7, 1964
11:30 A.M. Campus Club

Present: Professors D. R. Torbert, W. A. Russell, R. L. Jones, J. J. Jezeski for W. P. Martin, A. Orville Dahl, and W. E. Ibele; Dr. Victor Johnson; Deans F. M. Boddy and J. C. Haugland; Dean Bryce Crawford, Jr., presiding; Mrs. Shirley McDonald, secretary.

1. A Correction in the April Executive Committee Minutes - Item 4

The Physical Sciences Group Committee would approve a basic grade-point average not higher than 2.8 (not 2.9 as stated in the April minutes). Professor Ibele explained that in certain areas in the physical sciences where specific courses are required in the minor, C grades are not uncommon because of competition with students majoring in these subjects. A 2.8 grade-point average would allow 2 C's in the minor (all B's in the major). If a higher basic grade-point average is agreed upon, petitions to accept these programs which might fall below this standard would need to be filed in the Graduate School.

Professor Jezeski, for Agricultural Sciences, referred to similar situations in his area. He also said that although the 3.0 minimum seemed to be favored, he believes that the Agricultural Science Group Committee would wish to discuss the question further.

Dean Crawford asked that the group committees consider a 2.8 grade-point average rather than the 2.88 suggested earlier. Professor Ibele said that because some departments may set higher minimum grade-point averages, students should be told that the Graduate School standard is minimum and that they should check with their departments on additional departmental requirements. A reference to this effect could also be made in the next issue of the Graduate School Bulletin.

Dean Haugland commented on current practices in regard to the Graduate School's grade check. Every record is checked and advisers are informed in instances where performance falls below an overall B average. With the proposed tape storage of student progress, it will be possible to have sorted out those records falling below a 3.0 and Graduate School personnel can take action on individual cases.

Dr. Johnson referred to item 2 in the April minutes -- the establishment of the Biophysics major at Mayo. He asked whether or not it is implied that Biophysics may also be used as a minor. The Graduate School will

check with Dr. Barnum to determine whether this was the intent of the Medical Sciences Group Committee. (The subsequent check has determined that Biophysics may also be used as a minor.)

2. Preliminary Oral Examinations Passed with Reservations

Dean Crawford circulated a statement to the Executive Committee and it is included here for purposes of group committee discussion and comment. The rationale for the development of this statement can be found in the March and April Executive Committee minutes.

If such a statement will be useful, it can be printed and attached to the preliminary oral report form.

"To the Chairman of the Examining Committee:

Please return the preliminary examination report to the Graduate School office within a day of the examination. If it becomes desirable to recess the examination, please advise us (Extension 2966) of the reason and the date to which recess is taken; if the recess is for longer than a week, please return the examination report form and let us have a note as to the reasons for recess. This will help us in maintaining a current record of the student's progress.

A "pass with reservations" is in effect a recess, since removal of the reservation is a responsibility of the total committee which should be accomplished in a re-convened session. In the case of reservations, please be specific in noting on the form or on an attached sheet, what the reservation is, and how and when it is to be removed; a careful record is helpful to the committee in its future action.

Thank you for helping in the responsible maintenance of our graduate enterprise.

Bryce Crawford, Jr.
Dean"

Dr. Johnson asked whether this "instruction" would take care of cases where it is recommended that reservations be satisfied at the time of the final oral examination. Professor Russell brought out that this assumption would cause complications in cases where the preliminary and final examining committees are not the same.

Professor Torbert said that in some cases a preliminary oral committee may recommend further coursework in a certain field in order to improve the competence of the candidate in the area of the thesis. Would the entire committee still be expected to re-convene? Dean Boddy remarked that such cases are not really a "pass with reservations" since they are not based on performance at an examination. However, both Dean Boddy and Dean Crawford believe that it would still be the responsibility of the total examining committee that any specified reservations be satisfied.

Dean Haugland mentioned that in cases where courses are required, the chairman could notify the Graduate School by returning the preliminary oral report form. The courses could be entered on the Ph.D. program and, since the student file is always checked before a final oral report form is issued, it could be determined whether or not the coursework had been completed.

Dean Crawford asked that the group committees consider this topic further. The item will be carried forward.

3. Graduate Student Cancellation Procedure

The Biological Sciences Group Committee raised the question of current practices in regard to cancellations by graduate students. Students do cancel anytime during the quarter with a few cancelling even after the final examination, but before grades are issued.

Graduate School personnel accept cancellations with the adviser's signature "automatically" but students are told to get the instructor's verbal approval after the 6th week of the quarter.

It was agreed that rules governing cancellations by undergraduates cannot apply very well to graduate students. However, the Graduate School will, effective Summer Term I, require the instructor's signature as well as the adviser's signature for cancellations made after the 6th week of the quarter (and after the 2nd week of the summer term). The Cancel-Add slip will be revised and available for Summer term I.

4. Attendance at Final Oral Examinations

A proposal has been made that final orals be open to members of the Graduate Faculty and, at the pleasure of the student and committee chairman, to members of the general faculty and graduate students. (Refer to April 16 Executive Committee minutes.)

Dean Crawford referred to a letter from Professor Dahl in which he reported the Biological Sciences Group Committee reaction to the proposal. This group emphasized that the regulation not be changed so that it would prevail "across the board" but that it be on a permissive basis.

No final decision has been reached and the item will be carried forward.

5. Graduate Group Committee Appointments

Dean Crawford listed the group committee members whose terms will expire September 15, 1964 and asked the Executive Committee to consider replacements with their group committees. He asked that recommendations be sent to him by the chairmen so that appointments can be made before next fall.

6. Unified Program in Biochemistry

A program in Biochemistry common to both Minneapolis and St. Paul Campuses has been proposed. Dean Crawford cited the proposal in respect to recruiting, admission requirements, degrees, core course work, etc. He also reported that he has appointed a subcommittee which will review programs, recommend examining committees and nominations to the Graduate Faculty and will refer these recommendations to the Agricultural Sciences or Medical Sciences Group Committees.

Copies of the proposed program have been sent to the Agricultural Sciences and Medical Sciences Group Committees for review and recommendation.

Dean Crawford reminded the Committee of two meetings of the Executive Committee:

Tuesday, May 26 at 1:00 P.M. 306 Johnston Hall. To screen and rank NDEA Title IV proposals.

Tuesday, June 2 at 12:00 noon. Ladies Lounge, Campus Club.
Final meeting for academic year. A luncheon will be served.

Respectfully submitted,

Shirley McDonald
Secretary

May 8, 1964

UNIVERSITY OF MINNESOTA
Graduate School

TO: Recipients of the Graduate School Executive Committee Minutes

FROM: Shirley McDonald, secretary

SUBJECT: Correction in Executive Committee Minutes, May 26, 1964
NDEA Meeting.

Paragraph 3 should read:

"After discussion, the Committee ranked the fourteen requests for initial programs and six proposals for additional fellows in previously approved programs in the following order:"

June 9, 1964

UNIVERSITY OF MINNESOTA
Graduate School
Minutes of the Executive Committee
Tuesday, May 26, 1964
1:00 P.M. 306 Johnston Hall

Present: Professors A. Orville Dahl, W. E. Ibele, R. L. Jones, W. P. Martin, W. A. Russell, D. R. Torbert; by special invitation, Deans Marcia Edwards, Frank Verbrugge, and Paul Grambsch; Mrs. Martha Hostettler - Graduate School Research Center; Dean F. M. Boddy; Dean Bryce Crawford, Jr., presiding; Mrs. Shirley McDonald, secretary.

This meeting of the Executive Committee was called to review and rank program proposals under Title IV of the National Defense Education Act.

Dean Crawford explained that the change of date for submission of proposals to Washington from October 15 to June 1 is advantageous both in timing the preparation of proposals and recruitment of fellows where programs are approved.

After discussion, the Committee ranked the six requests for initial programs and fourteen proposals for additional fellows in previously approved programs in the following order:

1. Atmospheric Fluid Dynamics and Turbulence (Aeronautics & Engineering Mechanics)
2. Educational Psychology (Educational Psychology)
3. Nonequilibrium Thermodynamics (Mechanical Engineering)
4. Biochemical Engineering (Chemical Engineering)
5. Statistics (Statistics)
6. Anthropology (Anthropology)
7. History (History)
8. Special Education (Special Education)
9. Inorganic Chemistry (Chemistry)
10. Comparative Government and Politics (Political Science)
11. Asian Studies Program (Inter-Departmental Committee on Asian Studies)
12. Library Science (Library School)
13. Economics (Economics)
14. Physics (Physics)
15. Business Administration (Graduate School of Business Administration)
16. Civil Engineering (Civil Engineering)
17. Probability and Analysis (Mathematics)
18. Trade and Industrial Education (Trade and Industrial Education)
19. Theatre Arts (Speech and Theatre Arts)
20. Industrial Relations (Industrial Relations)

The application forms will be completed and sent with the proposals and covering letter to the Office of Education in Washington prior to the June 1 deadline.

Respectfully submitted,

Shirley McDonald
Secretary

UNIVERSITY OF MINNESOTA
Graduate School

Minutes of the Executive Committee
Tuesday, June 2, 1964
12:00 Noon, Campus Club

Present: Professors A. Orville Dahl, J. G. Darley, R. L. Jones, W. P. Martin, W. A. Russell, D. R. Torbert; Drs. C. P. Barnum and Victor Johnson; Deans T. W. Chamberlin, F. M. Boddy, J. C. Haugland; Dean Bryce Crawford, Jr., presiding; Shirley McDonald, Secretary.

1. The Foreign Language Requirement

Dean Crawford opened the discussion by reporting that certain questions have come to him regarding the foreign language requirement and asked whether an ad hoc committee should be appointed to study the requirement. Dean Boddy suggested that a statement of the purpose of the requirement be made and that space be provided on the language form so that the adviser can justify the use of certain languages.

Dean Crawford mentioned criteria for the selection of languages -- that they should be relevant to the field of scholarly work, provide a body of literature in the field, or be relevant to the career purposes of the student in a scholarly way.

Professor Darley said that perhaps the research technique and collateral field ought to be re-defined, particularly since the adoption of the Supporting Program in the Ph.D. In any event, consideration of the language requirement cannot be separated from these options. Professor Dahl asked whether it might not be more meaningful for students to satisfy the language requirement by good performance in language courses rather than trying, on their own, to pass proficiency examinations without having had the language courses.

Dean Crawford asked the group committees to consider the present requirements next fall and how they affect their particular areas. An ad hoc committee can be appointed if, after further review by the group committees and Executive Committee, it is warranted.

2. Attendance at Final Oral Examinations

Dean Crawford reviewed the most recent proposal on this subject. (Refer to Executive Committee Minutes, May 7, 1964 - Item 4)

The Executive Committee agreed that the written "rule" as stated in the Graduate School Bulletin will not be changed, but that individual departments may wish to experiment with this idea.

3. Preliminary Examinations Passed with Reservations

As a result of several Committee discussions, a statement regarding oral preliminary examinations was circulated to the group committees for review. (Refer to Executive Committee Minutes, May 7, 1964-Item 2)

At this meeting, the Committee agreed with the principles expressed in the statement; it will be printed and attached to the preliminary oral report form.

4. Appointments to the Graduate Faculty

A reaffirmation, by the Executive Committee, of a statement of policy regarding Graduate Faculty appointments was requested in order to clear up some apparent misunderstanding.

It was moved, seconded, and voted to reaffirm the policy of the Executive Committee "that no recommendations for full membership in the Graduate Faculty be approved in the case of assistant professors until after they have spent one year in residence at Minnesota at that rank."

*(cf. Graduate School Executive Committee Minutes, March 10, 1949.)

5. Scheduled Group Committee Meetings During the Summer

Dean Crawford asked the Executive Committee whether it would be advisable to schedule group committee meetings once during each summer term. Some of the committees have found it necessary to meet during this period and have done so for several years. The Executive Committee agreed that meetings should be called when there is enough material to justify them.

Dean Crawford asked that group committee chairmen who do not plan to be on campus this summer, supply the Graduate School with the names of the temporary chairmen.

6. Back-registration and Cancellation after the Final Examination

There have been instances where graduate students register for work completed from one to several quarters earlier. In addition to this practice, some cancel courses after the final examination and even after grades have been recorded.

The Graduate School has revised the Cancel-Add form to require the instructor's signature for cancellations after the 6th week of the quarter, but the Executive Committee agreed that a policy regarding cancellation and registration be recorded and implemented:

"Graduate students must complete registration, including addition of courses, and cancellation of courses each quarter by the last day of class."

7. The Grade Point Average

Dean Crawford referred to the recent Newsletter to the Graduate Faculty in which the proposed grade point average is described and reactions invited.

Professor Martin stated that the Agricultural Sciences Group Committee had reached a consensus and would support the 2.8 average. Dean Crawford mentioned the reference in the Newsletter to graduate credit for D grades on the Master's and doctoral programs. Dr. Barnum said that the Medical Sciences Committee would approve a 2.8 grade point average, but had not discussed this in connection with the Ph.D. He asked at what point a doctoral program would be checked since many are approved before the completion of many courses. Dean Crawford said that after the new quarterly student reports are available, departments and advisers will be aware of the student's progress. At the time of the preliminary oral examination, most course work has been completed and the examining committee will also have a complete progress report available.

This topic will be carried forward to next fall. Two points to be considered further in connection with the grade point average will be the use of D-grade courses and the possibility of a grade point average for the Ph.D. program. Suggestions from the Graduate Faculty regarding the proposal will also be discussed.

8. Progress Report on Proposed Graduate Programs

(a) Unified Program in Biochemistry - Master's and Ph.D.

Dean Crawford reported that a Graduate School Subcommittee on Biochemistry has been appointed which will function as a subcommittee to the appropriate group committees. Membership includes Professors S. W. Fenton, chairman, G. W. Carr, Samuel Kirkwood, M. O. Schultze, and D. B. Wetlauffer.

The proposal has been referred to the Agricultural Sciences and Medical Sciences Group Committees for review and recommendation.

(b) Master's and Ph.D. Programs in Ecology and Limnology

This proposal has been submitted to the Physical Sciences, Biological Sciences, and Agricultural Sciences Group Committees for consideration. It was brought out that the Anthropology Department may be concerned with this proposal too, because of the interest in human ecology in that area. A copy of the proposal will be sent to the Social Sciences Group Committee.

(c) Master's Program in History - Duluth

The Dean stated that an ad hoc committee consisting of representatives from history and other social sciences will be appointed to study

the proposal in light of the points of policy in respect to the development of graduate programs at Duluth. (Policy Points circulated with January 14, 1964 Executive Committee Minutes.)

This committee will probably be ready to make a recommendation to the Social Sciences Group Committee in the fall.

9. Proposed Ph.D. in Mathematics Teaching

The ad hoc committee appointed earlier and chaired by Professor Warren S. Loud, has considered this proposal and has presented a report of the committee's recommendation. (A copy of this report is filed with the permanent copy of these minutes)

In essence, the committee has recommended that a special program should not be set up, but that Ph.D. work in the field of mathematics teaching be included within the present structure of the Graduate School and that the major be in the field in which the thesis is written. Flexibility in Ph.D. requirements on the part of the major department, when deemed advisable by the student's major adviser, is also suggested.

Under the present Graduate School rules, a faculty member from one area of study may serve as a co-chairman with a faculty member from another area. The Executive Committee did not feel that new appointments to the Graduate Faculty in these areas serving as majors would be necessary.

Dean Crawford stated that the report and specific recommendations will be reported to the Physical Sciences and Education Group Committees since these areas will be most concerned.

10. Examining Committee Assignments

Dean Haugland described to the Committee the suggested procedures for maintaining a current log of examining committee assignments. The Committee agreed on the procedures in general and the Graduate School will work out details so that the log can be set up sometime after July 1.

After expressing his appreciation to the Committee for its work throughout the year, Dean Crawford adjourned the meeting. Meetings, on a monthly basis, will be resumed in the fall.

Respectfully submitted,

Shirley McDonald
Secretary

June 4, 1964

Report of Ad Hoc Committee to Consider the
Proposal of Professor P. C. Rosenbloom

The committee has had four meetings. At its final meeting on April 9 the committee reached a unanimous conclusion.

The committee has always recognized that the need for trained personnel which motivates Professor Rosenbloom's proposal is a valid need. It has addressed itself principally to the question of how these needs might best be met in the University of Minnesota.

At its second meeting the committee asked Professor Rosenbloom to be present to discuss aspects of his program which would be of particular interest to the committee. At the third meeting the proposal was thoroughly discussed and it was found that there were two possible recommendations between which the committee was undecided. The two possibilities were briefly (1) to establish a program for the Ph.D. in Mathematics Teaching within the present structure of the Graduate School, with the major to be in that field in which the thesis is written, or (2) to establish a special program for such a Ph.D. with its own administrative committee and faculty, similar to the program in Fluid Dynamics.

To enable the committee to decide between these two possibilities the chairman spoke to Professor Rosenbloom requesting further information both as to the possible areas of study in the program and as to people presently on the faculty who would be willing and able to serve on the faculty of such a program. Professor Rosenbloom's letter which arose from this conversation is attached to this report.

At its final meeting the committee considered the two possibilities described above in the light of Professor Rosenbloom's letter. The committee reached the conclusion that there was not sufficient justification for the establishment of a special program, and that it would recommend the first possibility mentioned above to the Dean of the Graduate School.

One of the main reasons for the decision was the additional administrative structure that would be needed by a special program. It did not seem that there would be enough students who could not be served well by the present structure to justify setting up a special program.

Recommendations

1. That students seeking the Ph.D. degree in the area contemplated by Professor Rosenbloom's proposal do so within the present structure of the Graduate School. The major should be in the field which is principally represented in the thesis, e.g. Education, Psychology, Mathematics.

2. If the major is outside mathematics, the student's minor should be in mathematics and strong enough to meet the requirements suggested by Professor Rosenbloom.
3. The major department should consider modification of its present Ph.D. requirements if in the opinion of the student's major adviser such revision is desirable.
4. Professor Rosenbloom and others who might supervise the student's research should be appointed to the graduate faculty in such areas as might serve as majors so that they can serve as co-advisers.

Concluding remarks: The committee is aware that if a student has a major in a field other than mathematics, this fact may well hinder recognition of the student's special mathematical competence. On the other hand, two points are made. First, surely any such student will be well recommended by Professor Rosenbloom, and his special competence will not be unknown. Second, if indeed what is wanted is a bona fide Ph.D. in mathematics, then the student should earn that degree and do either predoctoral or postdoctoral study in the fields of psychology or education. This second procedure is certainly available without a special program.

Respectfully submitted,

Professors Robert Beck
Marvin Dunnette
Donovan Johnson
Gerhard Kalisch
Fulton Koehler
Bernard Lindgren
Warren S. Loud, Chairman

PROPOSAL FOR A NEW PH.D. PROGRAM IN MATHEMATICAL EDUCATION

Object: To prepare students to do research and development in mathematical education at any level.

During the past four years the University and the Minnesota State Department of Education have been extensively engaged in this work with the aid of grants from federal agencies and private foundations. It is unhealthy that such activity flourish out of contact with the preparation of scholars. This work requires knowledge of mathematics equivalent to that of the Ph.D. and research competence in education, psychology or statistics.

Proposed requirements:

- (1). The same courses and examinations as for a Ph.D. in mathematics up to and including the Ph.D. preliminary examination in mathematics.
- (2). A minor in education, psychology, or statistics or an approved combination of the three.
- (3). A thesis based on research in education, psychology, or statistics on a problem in mathematical education.

Administration:

A graduate committee is to be established with representation of the departments concerned. This is to administer the program on the model of the present interdisciplinary program in fluid mechanics. Ordinarily, the student's course program will be adapted to his special interests. He will ordinarily have two advisors, one in mathematics and one in the field of his research.

The advisory committee of the Minnesota School Mathematics Center could be enlarged to form the new committee.

Notes: It is expected that most of the students in the program will start out as graduate students in mathematics. They will probably be self-selected on the basis of interest. This will be a demanding program, and students of low ability should not be advised to attempt it.

For the time being, students in the program can be supported out of contracts. Assistance will be applied for from the U.S. Office of Education.

Students with less mathematical preparation can be accommodated by present programs for majors in other fields with minors in mathematics.

This program is not meant as an attempt to increase substantially the supply of college mathematics teachers as suggested by the proposed Doctor of Arts or broadened Ph.D. in mathematics. We have had several inquiries from students regarding such a program.

Staff and Curriculum:

At present the staff and curriculum in mathematics are quite adequate for the program. As the program expands additional staff and courses in other fields may be desirable. We shall want to gain more experience with the program before making specific requests.

At present research activity in this field at Minnesota ranges from psychological research on preschool children to the development of experimental undergraduate courses.

Office of the Dean

May 29, 1964

To Members of the Graduate Faculty

Dear Colleagues:

This letter will reach you in the week when the last class meetings are skimming rapidly over those last few topics, and regrets are being voiced that the close of the term came upon us before certain other topics could be covered. And in the following week examinations will be given, and subsequently course grades will be made out. Some of us will have graduate students whose performance in a course is, if acceptable, something less than masterly; we will mull over their borderline performance with some irresolution as to the right grade. Exact justice would indicate a C grade; but a grade less than a B, we recall, eliminates a course from the student's degree program if it contributes to his major field. We may well feel some pressure to stretch a point, to avoid possibly over-penalizing a student; out of such pressures arises the "charity B."

Your Executive Committee and Group Committees have been discussing this question, and we should like to ask your reactions to certain proposed changes in the grade requirements. Let me first recall for you the present rules.

Master's Degree Programs, Plan A. Grades not lower than B in any course offered in the major; not lower than C in any course offered in the minor. No graduate credit for course work of D quality.

Master's Degree Programs, Plan B. An average of B (i.e., grade point average of 3.0) in a minimum of 45 credits in graduate courses in the program. No graduate credit for course work of D quality.

Doctoral Programs. Grades not lower than B in any course contributing to the major; not lower than C in any course contributing to the minor or supporting program.

The proposed changes rest on two propositions. First, we should avoid confusion (for both faculty and students) if the grade requirements were the same for the two Master's degree plans and indeed for the Ph.D. also. This would reflect the fact that the two plans are regarded as comparable in quality, though different in the emphasis on original research.

The second proposition relates to the "charity B." We should, of course, regard a program which shows C quality overall as unsatisfactory. But a very good student may well find an occasional course, contributing to his major field but not lying in his own particular specialized interest, of such

difficulty for him that a C performance is the best he can do. If we permit an occasional C quality course to be included, we shall remove the over-penalty, we shall reduce the pressures for the "charity B," we shall thereby encourage faculty members to record grades of C (and even D) when these are accurate appraisals, and the grade records of our students will thus be a more realistic indication of their performance.

The Executive Committee has tentatively agreed on the following set of requirements:

1. Graduate credit will be given for course work with performance of A, B, C, or D quality;
2. All candidates for the Master's degree, either Plan A or Plan B, must maintain an average of 2.8 over all courses included in their approved degree program;
3. The full course record will be taken into consideration and significant failure to maintain an average of substantially 2.8 over all courses taken (including those not on the degree program) will ordinarily lead to rejection of a minimum-level program by the adviser or by the group committee;
4. Individual areas may require a higher level of performance of their majors.

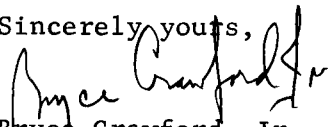
You will note that no grade-point average is stated for the Ph.D. program. It would seem inappropriate, since the Ph.D. is awarded on the basis of performance in comprehensive examinations and in original scholarship, not for the arithmetic satisfaction of course-credit requirements. An occasional C (or even D) appearing on a student's program could surely be properly evaluated by the examining committee.

Let me repeat that the Executive Committee proposal is tentative; we should be helped by your reactions and comments. A note from you will be thoughtfully considered by your Executive Committee; if past experience is a guide, the responses from you should enable us, next fall, to refine the proposal and, if consensus appears, to improve our grade requirements.

I have one other request to make of you. We are planning to prepare the 1963-64 Inventory of Research for publication early this summer, and we are anxious to include as many of the faculty's interests as possible. If you have not yet responded to the request for information from the Research Center, I hope you will take the few minutes to do so. If you find doubt in your mind as to whether you have done this, and no Research Inventory card on your desk, a call to the Research Center (Ext. 3001) can eliminate the first and supply the second.

With every good wish for summer activities which, without paradox, will be both relaxing and stimulating, I am,

Sincerely yours,


Bryce Crawford, Jr.
Dean