

## HOPE COLLEGE

HOLLAND, MICHIGAN 49423



March 24, 1975

## FACULTY EVALUATION

Evaluator Elliot A. Tanis  
Elliot A. Tanis

Individual rated: Herbert Dershem

Since I wrote a rather lengthy evaluation of Herb for my tenure recommendation, I will not repeat everything in that evaluation.

Teaching Effectiveness

I regard Herb's teaching as excellent to exceptional.

Scholarship and Professional Activity

I judge Herb's scholarly/professional activity and accomplishments to be excellent to exceptional.

Service

I judge Herb's service to Department and College as excellent.

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Date: March 10, 1975

To: Status Committee

From: Elliot A. Tanis, Chairman  
Mathematics Department

Subject: Recommendation of Herbert Dershem for tenure.

1. I believe that Herbert Dershem is an effective teacher. As evidence I will first give a summary of student evaluation in three courses taught last semester. The Student Instructional Report (SIR) was used. The numbers are compared to four-year college means and standard deviations provided by SIR.

	Math 180	Math 180	CS 381	Nat Ave	Standard Deviation
Planning Course Objectives and Goals					
1. Objectives made clear	3.87	3.63	3.40	3.36	0.35
2. Agreement between announced objectives and what was taught	3.67	3.58	3.30	3.29	0.35
16. Scope too limited	1.38	1.83	1.79	1.80	0.32
20. Objectives accomplished	3.88	3.42	3.50	3.34	0.38
Effectiveness in Communication					
5. Knew when students didn't understand	3.06	3.00	3.30	3.10	0.40
14. Major points summarized	3.47	3.43	3.11	3.34	0.34
35. Quality of lectures	4.75	4.43	4.15	3.90	0.64
36. Value of class discussion	4.57	3.76	3.55	3.65	0.69
39. Overall effectiveness	4.69	4.33	4.32	3.85	0.65
Counselling and Motivation					
4. Readily available	3.40	3.52	3.55	3.45	0.31
7. Encouraged students to think for themselves	3.75	3.57	3.47	3.32	0.37
8. Concern with student's progress	3.53	3.29	3.20	3.31	0.40
10. Raised challenging questions	3.56	3.25	3.06	3.18	0.41
15. Interest in sub. area stimulated	3.38	3.38	3.17	3.08	0.49
18. Student effort in course	3.63	3.17	3.20	3.16	0.36
Effectiveness in Evaluating Student Progress					
9. Helpful comments on papers & exams	2.93	2.90	2.79	3.04	0.48
13. Students knew how they would be evaluated	3.56	3.54	3.50	3.28	0.38
17. Exams reflected important aspects	3.38	3.04	2.75	3.01	0.45

Note that Herb, in general, ranked above the national average, several times by more than one standard deviation. (It should be noted that the highest possible score was usually less than two standard deviations above the mean.)

In addition to the SIR information, I would like to give some written comments from some of our junior and senior majors, four recent graduates, and four of Herb's colleagues.

Comments from majors:

"I think that he is an excellent prof., and I would feel bad if he left. I feel that he knows his material very well, and can teach it also."

"As a teacher he is very challenging and causes students to think for themselves - but whenever there are questions - he's always willing to help. As an advisor he's been very helpful to me - not forcing anything on me but helping me to know my interests. I think he is very active in keeping up-to-date on new math and computer methods."

"He's helpful, cheerful and too intelligent to lose. Also a good teacher who knows what he's doing and how to teach it."

"He is one of the best teachers I've ever had. He communicates well, grades fairly, is open to students (very helpful). He knows his subject."

"Tremendous prof. You really learn the material in his class."

"Having him for an advisor, I realize he has a good idea of what is necessary in counseling students."

"Dr. Dershem is the one person in the Math-Computer department who knows best what is going on in the area of computer science. He is also about the best instructor I have had at Hope. Hope needs his services."

"I have gone to Dr. Dershem several times with problems in research from other departments. He has always taken the time to assist and offer ideas."

Comments from recent graduates:

Dr. Dershem is an excellent professor, and manages to explain the complexities of computer operation, organization, and structure in a manner easily understandable by any student. Hope College would be losing one of the finest professors I had in my 4 years here if he is not given tenure. In addition, I feel the level of quality in the mathematics and computer department would suffer greatly if he is not retained. - Donald P. Dame

Thought he taught very well. Always available for help. And he always helped. Lectures were well organized. Roxanna Spurgis

I think that Dr. Dershem should be granted tenure. He is very considerate of any suggestions that will improve the quality of education and preparation of the Hope graduate to enter either graduate school or into industry. Now that Hope offers a major in computer science, it is imperative that someone with his quality be retained by Hope.

I have had him as a teacher for some classes and a summer research project and have found him to be very fair in the classroom and very open to meet with students that have any problems. What was taught, the content of the course, is very similar to other classes that I have taken in grad school and have found that because I have had some experience with the problem I was able to do a better job. John De Heus

Dr. Dershem should be granted tenure because Hope College is definitely benefiting from his contribution. Not only his rapport with students and fellow faculty members, but also his drive to develop a Computer Science Department, indicate his dedication to Hope College, to the ideals of education, and to helping individuals gain satisfaction through this field of the sciences. Laura Eichhorn

Comments from peers:

I have observed the work of Professor Herbert Dershem since he joined the Faculty. He has contributed a great deal toward the development of the computer science aspect of our curriculum. During this time he has repeatedly shown sound judgment, great diligence, and excellent foresight.

As a fine Christian, excellent scholar and diligent teacher, he should be granted tenure at Hope College. I recommend him for this without reservation. Jay Folkert

I have audited a couple of Herb's classes and have found that he is always well-prepared. His lectures are well-organized and very stimulating. He takes an interest in each student and is available to help students outside of class.

Herb is very competent in his field and keeps up with recent trends and developments in the area of computer science. He is active in several professional interest groups in computer science, serving on committees, chairing sessions, etc.

Herb is very supportive of his colleagues and stimulates and encourages professional growth of other members of the department in the area of computer science.

I personally feel that no one will be more qualified, as a teacher and scholar, for the granting of tenure than Herb. He will be a great loss to the college and the departments of mathematics and computer science if he is not granted tenure. John Whittle

I have worked with Herb reasonably close over the last two years, largely in conjunction with the Computer Science Program. He is a reasonable, conscientious person who is willing to listen to ideas and often serves to articulate the consensus of the group. He believes in the college and works hard to achieve goals that he feels are in the good of the college. I think he will continue to do so.

Students that I have shared with him feel he is a competent, hard working person that has their best interests at heart. He appears to be a thorough and rigorous teacher.

I am not familiar with Herb's research effort and to the extent it involves students, so I shall not comment in this area.

I think there is little question that Herb has demonstrated that he satisfies both the letter and the spirit requisite for consideration for tenure. James Seeser

I wish to make several comments about Herbert Dershem who is being considered for tenure this year.

Although I suspect it is well known and appreciated, I wish to reiterate the fact that it was Herb, more than anyone else, who developed the courses in Computer Science at Hope College. He has been instrumental in establishing the department and now serves as its chairman. There is no question about Herb's ability to get tasks done, his expert competence in his field, and of Hope College's continuing, in fact, growing need for Herb's services in the years ahead. Herb involves his students in good academic and instructional projects in Computer Science. I might also add that I appreciated his generosity when he spent some time assisting me with an assembler program. I firmly support Herbert Dershem's application for tenure.

Richard Brockmeier

2. As implied in some of the peer evaluations, Herb is the man responsible for our developing computer science curriculum. Since 1969 he has developed 9 courses for our curriculum. Not only has he designed these particular courses individually, he has also put them all together so that they form a program. He was responsible for designing our major Mathematics with Computing Emphasis. He is continuing to give leadership in the computer science program, now serving as chairman of the Computer Science Department.

The Math 215,216 course sequence, Applied Statistics and Computer Programming I and II, was developed during 1971-73 under a \$46,000 grant from NSF. This past summer Herb extended his work in this area writing an exercise manual for introductory statistics with computer under Project COMPUTE at Dartmouth College. That exercise manual is in the final stages of preparation for publication.

As an example of Herb's versatility, this semester he is teaching Survey of Calculus for Business Students. This is the first time our survey of calculus course has been taught with this emphasis.

Herb has supervised 12 independent study and research projects. A list of these projects is attached.

3. A list of Herb's publications is included in his resume. These publications are a natural outgrowth of his work and are not publications just for the sake of publishing. In addition to his publications, Herb has reviewed 9 articles and 3 books for Computing Reviews. He is also a reviewer of computer instructional software packages for CONDUIT.

4. Herb took the responsibility for organizing the Michigan Delta Chapter of Pi Mu Epsilon in 1972. He has served as faculty advisor since that time for this honorary mathematics fraternity.

He has served on the Academic Affairs Board. He is currently serving on the Computer Policies Committee and on the Continuing Education Task Force, Chairman of the Fiscal Affairs Task Group.

5. Herb is a member of the National Mathematics Advisory Committee of CONDUIT which reviews computer based materials in mathematics.

He was an organizing committee member and session chairman of a Conference on Instructional Computing in Michigan, which was held in East Lansing, March, 1974.

Herb is an active member of Zion Lutheran Church. He served as a Member of Church Council, 1971-73; Chairman of the Pastoral Calling Committee, 1971-73; Teacher of Adult Bible Class, 1973-74; Sunday School Superintendent, 1971-74.

6. An updated curriculum vitae is attached.

7. Having Herbert Dershem on our staff creates activity within our Department and within the Computer Science Department. By his example he keeps others moving. For example, the NSF grant for the introduction of the computer in the statistics curriculum was possible because of a joint effort by Herb and me. It was because of Herb's suggestion and encouragement that I became a reviewer for Computing Reviews. Granting Herb tenure will give us 8 out of 9 tenured staff members. However, we are hiring a new person for next year who should provide some new ideas. In addition one staff member will retire in 5 years and another in 6. Thus at least 3 new people will be added to our staff during the next 6 or 7 years.

I expect the present staff members to continue to update their training and to become involved in new areas of mathematics. This has been done in part by sabbatical leaves by 5 of our staff members during the past few years. In addition to sabbatical leaves, workshops and conferences provide new stimuli. I believe there is also the real possibility of faculty exchanges.

I believe that it is extremely important to our Department and to Hope College that Herbert Dershem is granted tenure and I recommend without reservation that this action should be taken.

*Elliot A. Tanis*

RESUME

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HOLLAND, MICHIGAN 49423

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DATE OF BIRTH: MARCH 26, 1943

PERSONAL: MARRIED, THREE CHILDREN

DEGREES: B.S. (CUM LAUDE) UNIVERSITY OF DAYTON, 1965 (MATH)  
M.S. PURDUE UNIVERSITY, 1967 (COMPUTER SCIENCE)  
PH.D. PURDUE UNIVERSITY, 1969 (COMPUTER SCIENCE)

EXPERIENCE: PART-TIME SYSTEMS AND APPLICATIONS PROGRAMMER,  
UNIVERSITY OF DAYTON COMPUTER CENTER, 1961-5  
NUMERICAL ANALYST, UNIVERSITY OF DAYTON RESEARCH  
INSTITUTE, SUMMERS, 1965-7  
ASSISTANT PROFESSOR OF MATHEMATICS, HOPE COLLEGE,  
1969-1973  
ASSOCIATE PROFESSOR OF MATHEMATICS, HOPE COLLEGE,  
1973-1974  
ASSOCIATE PROFESSOR OF MATHEMATICS AND COMPUTER  
SCIENCE, HOPE COLLEGE, 1974-  
CHAIRMAN OF THE DEPARTMENT OF COMPUTER SCIENCE,  
HOPE COLLEGE, 1975-

HONORS AND AWARDS: NDEA FELLOW, 1965-8  
HONEYWELL CORPORATION FELLOW, 1968-9

GRANTS: NSF GRANT TO INTRODUCE THE COMPUTER INTO THE  
STATISTICS CURRICULUM, 1971-3, WITH E. TANIS  
PROJECT COMPUTE, DARTMOUTH COLLEGE, TO WRITE AN  
EXERCISE MANUAL FOR INTRODUCTORY STATISTICS WITH  
COMPUTER, SUMMER, 1974

PUBLICATIONS:

"AN ALGORITHM FOR APPROXIMATING THE SOLUTION TO A  
GENERAL FIRST-ORDER SYSTEM OF DIFFERENTIAL EQUATIONS,"  
UDRI-TM-67-137, UNIVERSITY OF DAYTON RESEARCH INSTITUTE,  
1967

"APPROXIMATION OF BESSEL'S DIFFERENTIAL OPERATOR  
OF FRACTIONAL ORDER BY FINITE DIFFERENCE OPERATORS,"  
PH.D. THESIS, PURDUE UNIVERSITY, 1969

"PROBLEMS RELATED TO CARD GAMES FOR AN INTRODUCTORY  
PROGRAMMING COURSE," SIGCSE BULLETIN, 2,5(DEC.,1970),  
PP. 48-49

"APPROXIMATION OF THE BESSEL EIGENVALUE PROBLEM BY

FINITE DIFFERENCES," SIAM J. NUMER. ANAL., 8,4(DEC.,1971),  
PP. 706-716

"A COURSE ON COMPUTING AND STATISTICS FOR SOCIAL  
SCIENCE STUDENTS," PROCEEDINGS OF THE 1972 CONFERENCE  
ON COMPUTERS IN THE UNDERGRADUATE CURRICULA, ATLANTA,  
GEORGIA, 1972, PP. 525-528

"BESSEL DIFFERENCE SYSTEMS OF FRACTIONAL ORDER,"  
J.MATH. ANAL. AND APPL., 39,3(SEPT., 1972),  
PP. 558-563

"EXERCISE MANUAL FOR A COMPUTER-AUGMENTED APPLIED  
STATISTICS COURSE," IN PREPARATION

"A RELATIONSHIP BETWEEN APPROXIMATION THEORY AND  
STATISTICAL MEASUREMENTS," TO APPEAR IN PI MU EPSILON  
JOURNAL, SPRING, 1975.

MEMBERSHIPS: PI MU EPSILON

SIGMA XI

MATHEMATICAL ASSOCIATION OF AMERICA

ASSOCIATION FOR COMPUTING MACHINERY

OTHER ACCOMPLISHMENTS:

REVIEWER FOR COMPUTING REVIEWS

DEVELOPED AND IMPLEMENTED A MAJOR PROGRAM IN MATHEMATICS  
WITH COMPUTING EMPHASIS AT HOPE COLLEGE, 1973

ASSISTED IN DEVELOPMENT OF INTERDISCIPLINARY COMPUTER  
SCIENCE DEPARTMENT AND MAJOR AT HOPE COLLEGE, 1974

MEMBER, CONDUIT MATHEMATICS ADVISORY COMMITTEE, WHICH  
REVIEWS COMPUTER BASED MATERIALS IN MATHEMATICS, 1974-

ORGANIZER AND ADVISOR, MICHIGAN DELTA CHAPTER OF PI  
MU EPSILON, HOPE COLLEGE, 1972-

ORGANIZING COMMITTEE MEMBER AND SESSION CHAIRMAN,  
CONFERENCE ON INSTRUCTIONAL COMPUTING IN MICHIGAN,  
EAST LANSING, MICHIGAN, MARCH, 1974

CO-DIRECTOR, SUMMER CONFERENCE ON COMPUTERS IN THE  
UNDERGRADUATE STATISTICS CURRICULUM, ATTENDED BY 50  
COLLEGE EDUCATORS AND SPONSORED BY NSF, HOPE COLLEGE,  
AUGUST, 1972

INVITED PARTICIPANT ON A NINE MEMBER PANEL TO MAKE  
RECOMMENDATIONS ON COMPUTER SCIENCE CURRICULUM FOR  
FOUR-YEAR LIBERAL ARTS COLLEGES. THIS PANEL'S  
RECOMMENDATIONS HAVE SINCE BEEN PUBLISHED. WHEATON  
COLLEGE, WHEATON, ILLINOIS, JULY 12-14, 1972



COURSES TAUGHT: HOPE COLLEGE, 1969-1975

- \*INTRODUCTION TO COMPUTER SCIENCE (14 TIMES)
- \*NUMERICAL ANALYSIS (4 TIMES)  
DIFFERENTIAL EQUATIONS
- \*APPLIED STATISTICS & COMPUTER PROGRAMMING I&II (2 TIMES)  
INTRODUCTORY STATISTICS (2 TIMES)  
ADVANCED CALCULUS I & II  
LINEAR ALGEBRA
- \*DATA STRUCTURES (2 TIMES)
- \*COMPUTER APPRECIATION (2 TIMES)
- \*PROGRAMMING LANGUAGES
- \*COMPUTER AND PROGRAM ORGANIZATION
- \*SURVEY OF CALCULUS FOR BUSINESS STUDENTS
- \*FILE MANAGEMENT (COBOL PROGRAMMING)

COURSES DESIGNED: THOSE MARKED WITH "\*" ABOVE

INDEPENDENT STUDY AND RESEARCH PROJECTS SUPERVISED:

- 1969 D. RIGG ARTIFICIAL INTELLIGENCE-KALAH PROGRAM
- 1970 B. RENNER ASSEMBLY LANGUAGE PROGRAMMING  
B. RENNER COMPILERS - WRITING A SNOBOL COMPILER
- 1971 L. DRAFT RANDOM NUMBER GENERATORS - STUDY AND  
COMPARISON OF TECHNIQUES  
S. STOWELL NUMERICAL ANALYSIS - NUMERICAL INTEGRATION  
IN THE PRESENCE OF A SINGULARITY  
L. DRAFT LIST PROCESSING - STUDY AND DESIGN OF  
LANGUAGES
- 1972 R. POHL GAME PLAYING - PROGRAM TO BID AND PLAY  
PINOCHLE  
S. QUIRING OPERATING SYSTEMS - STRUCTURES AND PROPERTIES  
AND IMPLEMENTATION OF MODIFICATIONS
- 1973 S. QUIRING COMPILERS - DESIGN AND IMPLEMENTATION OF  
A COMPILER-COMPILER  
M. DIETZ NUMERICAL WEATHER PREDICTION
- 1974 G. BUIS INFORMATION RETRIEVAL - ALUMNI INFORMATION SYSTEM  
M. PIATT MINI COMPUTERS - PROGRAMMING A MINI  
COMPUTER SYSTEM

Articles reviewed in Computing Reviews

Fischer, P. C. "Theory of computing in computer science education"

Denning, P. J. "Operating systems principles and undergraduate computer science curricula"

Lynn, S. M. "Computer Science education--the need for interaction"

Amarel, S. "A set of goals and approaches for education in computer science"

Zinn, K. L. "Computers in the instructional process: directions for research and development"

Rice, J. R. "Historical notes on mathematical software"

Rice, J. R. "The distribution and sources of mathematical software"

Rice, J. R. "The challenge for mathematical software"

Bitter, G. "Computer-oriented calculus"

Books reviewed:

Gleim, G. A. and Farina, M. V. Data Processing Mathematics

Skelton, J. E. An Introduction to the Basic Language

Weinberg, G., Yasukawa, N., and Marcus, R. Structured Programming in PL/C--an Abecedarian

Reviewer of computer instructional software packages for CONDUIT.