MATHEMATICAL ASSOCIATION OF AMERICA
AWARDS FOR DISTINGUISHED COLLEGE OR UNIVERSITY TEACHING OF MATHEMATICS

Nomination Form
(Please Type)

Name of Nominee (Last name first) PORTER, A. Duane

Name of College or University University of Wyoming

College or University Address Department of Mathematics, University of Wyoming
Box 3036 University Station, Laramie, WY 82071

College Telephone (307) 766-3395 Home Telephone (307) 745-5390

Number of years of teaching experience in a mathematical science 30

Has the nominee taught at least half time in a mathematical science for the past three years (not counting a sabbatical period)? yes

Activities related to teaching Has obtained NSF grants to improve teaching at all levels (elementary school, high school, college). Has given many talks and organized sessions on teaching at local, regional and national meetings of AMS/MAA/NCTM.

Publications related to teaching if any (List no more than five) "Gems of Exposition in Elementary Linear Algebra"; College Math Journal, September 1992.

"Linear Algebra Curriculum Study Group: Recommendations for a First Course in Linear Algebra"; College Math Journal, January 1993

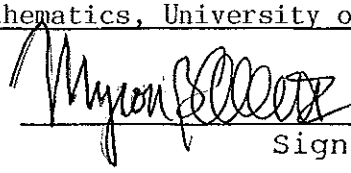
Membership and significant activities in relevant professional organizations AMS/MAA/NCTM. Section chair (RMMAA: 1977-78;1988-89); Board of Governors MAA (1978-81), Rocky Mt. Math Consortium (chair: 78-79, 82-83, 88-89)

Previous awards for teaching, if any
Amoco Award for Oustanding Undergraduate Teaching (1980);
Arts & Sciences Award (1992)

Additional relevant information Received the Rocky Mountain Section Distinguished Service Award (1991); One of the four organizers of The Linear Algebra Curriculum Study Group; Evaluator and presenter at the "Conference on Innovative Teaching Methods" at the University of Arizona; Directed over 20 Master of Science in Teaching degrees since 1986.

Name of Nominator (last name first) ALLEN, Myron B. Dept. Head

Address of Nominator Department of Mathematics, University of Wyoming, Laramie, WY 82071



Signature

TO: Mathematical Association of America

FROM: Myron Allen, Mathematics Department Chairman

The Mathematics Department at the University of Wyoming would like to recommend Professor A. Duane Porter for the Mathematical Association of America Distinguished Teaching Award. The reasons for this nomination are outlined below.

Professor A. Duane Porter has been a member of the faculty of the University of Wyoming since 1964. During this time he has always been considered an outstanding teacher by both the department and his students. He received the Standard Oil Award for outstanding teaching in 1980 and he was named the College of Arts and Sciences outstanding Teacher in 1992. His classes always fill quickly and many students have waited a semester or entire year to take a course from him. He has been actively involved in education related matters during his entire tenure at the university. In addition, Duane has been involved in mathematics teaching at all levels from freshman through graduate, including mathematics education courses. He has directed over 20 students in obtaining the Master of Science in Teaching degree since 1986.

His love for teaching has manifested itself through his work with students at all levels and with all types of students. Duane does as well with freshmen as he does with graduate students. He also has worked on the improvement of teaching at all levels including college, high school and elementary school. The following give some indication of his involvement and dedication.

1. Each summer since 1982, Duane has directed a national summer conference for graduate students. Most participants have been mathematics majors, but, engineers, computer scientists, physicists, and economists have regularly attended. In the early years funds were scarce, and in order to use money to support the students, he convinced faculty to come to Wyoming and speak to the students for only their expenses. A content course always formed the

central theme of the conferences, but motivation to become better a teacher either as a TA or in other situations was woven throughout the structure.

Duane felt that there should be similar conferences which would help college faculty to improve their teaching and to update their content knowledge. As a result, since 1989, he has obtained five NSF grants to support college faculty to attend three week summer conferences in Laramie. The main theme of these conferences has always been the improvement of the teaching of mathematics for undergraduates. The topics have been so engaging that every year, besides a group of United States participants, a number of foreign faculty has attended.

2. Duane was a founder of the Linear Algebra Curriculum Study Group. The work by this group toward restructuring the undergraduate linear algebra curriculum exemplifies his work beyond the University of Wyoming. In addition, he has organized and chaired sessions at the past four national AMS/MAA meetings on the teaching of linear algebra.

3. Professor Porter has been the coordinator of the yearly articulation meetings with the Two Year Colleges since 1976. He has obtained State funds for the meetings, assisted in program development, and actively encouraged faculty from the University and the Two Year Colleges to attend. The meeting has grown under his guidance to include the University departments of computer science and statistics in addition to mathematics. It took much hard work and many visits on his part to ensure the participation of all of the Two Year Colleges. Now they all attend the meeting each year. Duane helped them develop a plan whereby they take turns hosting the meeting each year. This helps each college to feel they have ownership in the meeting.

4. He has just received a $1,550,000 NSF grant entitled "Model Masters Degree Program." The purpose of the grant is to develop and deliver a Masters Degree program to high schools teachers. This is a national program, but will be partially tailored to the needs of

teachers of minorities, especially of Native Americans. It involves several key items, such as, the integration of the NCTM standards into high school classrooms and the design of college classes taught in a way that can be transferred to the participants' classrooms. A unique feature of the program is the involvement of State Presidential Award winners to interact with the students. They will team teach a course with university faculty which is intended to pass their classroom skills and pedagogy to the participants. Duane has already secured firm commitments from at least two Presidential Award recipients who have had success in teaching minorities.

5. Duane has recently directed the restructuring of the mathematics component of the elementary education major. This involved a four year effort with the College of Education. The mathematics courses were rewritten to include emphasis on the material in the NCTM Standards. In addition, he worked with the College of Education in writing a set of activities now being taught in a seminar simultaneously with the mathematics content courses. The purpose of the seminar is to allow the prospective elementary education teachers see the mathematics being used in the classroom while they are studying it. Dr. Porter spent an enormous amount of time in making the cooperative effort work between education and mathematics. To initiate this effort, he obtained a $333,500 four year grant from NSF to assist in the project. At present he is working with all of the State's Two Year Colleges to assist them in adopting similar courses. Some Two Year College faculty met recently to discuss the courses and they requested that Duane attend the sessions. One said that the work could not be properly done without his input. Perhaps this, in a small way, suggests his relationship with the Two Year College mathematics teachers.

6. Professor Porter took over the Directorship of the Science and Mathematics Teaching Center during 1979-1983. He was acting director in 1978 along with being acting head of the Mathematics Department. During his tenure with the Center, he greatly expanded the

University's role in the public schools. He was very active in organizing workshops and inservice for the teachers. He also initiated the degree Master of Science for Teachers in the Mathematics Department. Before this time, it was a degree in Arts and Sciences that could be used by any department. Professor Porter believed that the degree should reside in individual departments so that better control and direction could be maintained.

7. One important feature of Duane's teaching is his willingness to grow as he experiences new ideas. An example is his work on the restructuring of the sequence for elementary education majors. Current educational research suggests that students need to be actively involved in the learning process. In addition, research suggests that teachers "teach as they are taught." These two ideas led Duane to develop content courses for elementary teachers that are activity-based. Prospective elementary teachers now study and learn mathematics in a laboratory setting in which they work in groups and make use of materials to help in mastering the "why" of Mathematics. This type of teaching was a departure from his traditional method, yet, since it was of value to the student, he has been very enthusiastic in adopting it.

Similar comments could be made regarding the ideas he has experienced during the summer conferences--they have found their way into his classes and have strengthened his teaching. A number of his students have said "this is the first time I have really understood that concept."

8. Duane is actively involved as an editor and reviewer for a number of publications. The following are directly related to teaching: Arithmetic Teacher, Mathematics Teacher, College Mathematics Journal, School science and Mathematics, Arithmetic Teacher, Mathematics Monthly.

Evidence of Teaching Success

1. A University Course Evaluation Form is administered in at least one class per year. It is given by someone other than the faculty member. The students are asked to respond to a set of 12 questions and to make written comments. They are advised that the instructor will not see the results until after grades are turned in. Below is a copy of the first seven questions which pertain to the instructor. The others deal with routine matters such as major, year in school, etc. and are not relevant to the nomination. These questions are followed by the composite results from two classes (Fall 1992 and Fall 1993) as well as selected student comments from these classes.

1. Course Organization and Presentation (How would you evaluate the presentation of material in this course?)
a--EXCELLENT b--GOOD c--SATISFACTORY d--POOR e--UNSATISFACTORY
2. Course Grading and Evaluation of Students (Did the grading in the course seem fair? Was the basis for the evaluation of students' work clear?)
a--EXCELLENT b--GOOD c--SATISFACTORY d--POOR e--UNSATISFACTORY
3. Student-Teacher Interaction (How would you evaluate the instructor's attitude and behavior toward students in this class? During office visits?)
a--EXCELLENT b--GOOD c--SATISFACTORY d--POOR e--UNSATISFACTORY
4. Quality of Instruction (Did the instructor make this course intellectually challenging?)
a--EXCELLENT b--GOOD c--SATISFACTORY d--POOR e--UNSATISFACTORY
5. Quality of the Course (What do you think about the course content?)
a--EXCELLENT b--GOOD c--SATISFACTORY d--POOR e--UNSATISFACTORY
6. Would you recommend this course to others?
a--Yes, enthusiastically b--Yes c--No d--Absolutely not e--No opinion/undecided
7. Would you take another course from this instructor?
a--Yes, with pleasure b--Yes c--No d--Absolutely not e--No opinion/undecided

Question #	MATH 1105-02, Fall 1992 # of Responses					MATH 1100-01, Fall 1993 # of Responses				
	a	b	c	d	e	a	b	c	d	e
1	27	4	0	0	0	23	7	0	0	0
2	27	4	0	0	0	23	7	0	0	0
3	27	4	0	0	0	26	4	0	0	0
4	27	4	0	0	0	26	4	0	0	0
5	26	4	1	0	0	24	6	0	0	0
6	27	4	0	0	0	24	6	0	0	0
7	27	3	1	0	0	25	5	0	0	0

COMMENTS MATH 1105-02, Fall 1992

Dr. Porter: 1) Very organized in class assignments, for each lesson. 2) Materials, used manipulatives, which really helped learn the topics better. 3) Very fair in grading--to all students. 4) Willing to help outside of class. 5) Dr. Porter is a very effective teacher. I learned a lot from his class.

Porter is by far the most clear, conscientious math instructor I have ever had. I learned a lot. I liked the emphasis on how to teach the material to children. This made the class seem relevant and worthwhile.

Dr. Porter is a wonderful teacher. He has prepared me very well to teach math in elementary school. I feel much more confident with my math abilities than I did before these classes (Theory I & II). He is one of the most fair and understanding teachers I have ever had. Both his assignments and tests are relevant to the material presented.

Dr. Porter is an excellent teacher. The material was presented in a way that was easily understood. He also was very practical (always) about how we as teachers could apply this to our classroom. I think I have learned more in this class about how to teach mathematics than any other. I know that once I am teaching I will call Dr. Porter if I need any advice!

I have taken both semesters of this course and have found it to be a positive, memorable experience. I wish every math course was taught with this much enthusiasm and care; maybe I would proceed further within it. It's not that I don't like math; it just is not clear to me. I've always had problems clear back to the 2nd grade. Dr. Porter truly cares about the students' doing well and understanding the subject matter. I like how he goes over every assignment before class starts and answers questions. It is a positive learning experience. He's willing to see students on the side to help them along. Too bad there are not more Dr. Porters!

Dr. Porter is an excellent math teacher. I have recommended him to many friends. He helps us to not only learn how to do math but why we do what we do. He does a terrific job preparing us to teach and makes our learning relevant. Fabulous Professor!

COMMENTS MATH 1100-01, Fall 1993

Dr. Porter was an excellent teacher. He seems to understand what we will need to know as future teachers. He not only teaches the material, but also ways to teach the material. I respect his thoughts and opinions and know that I can come to him for help anytime. I will always try to get him as a future math teacher.

I feel that Dr. Porter is an excellent instructor and did a great job with teaching this course. I gained enthusiasm, a new outlook on mathematics, and many ideas that I can use when teaching in elementary classroom in the future. All of the methods and materials used were very effective.

I thought that Dr. Porter did a good job. He was very open minded and willing to help each and every student. I appreciate his willingness to admit when he was wrong and help us any way he could. I would take another class from him and recommend it to others.

Dr. Porter is a great person. In the 15 years that I have been going to school he is one of the five teachers I believe really cares about his students as people. Whether he knows it or not, his little pats on the back and some of his silly jokes helped me feel more comfortable and helped with my phobia of math. He is my first college professor who also took interest in my family, which really impressed me!!

Dr. Porter is an excellent teacher. I've never had a math teacher as good as he is. He makes math understandable. He doesn't assign problems that are out of our league. He makes class fun and enjoyable. I don't mind coming to class for two hours at a time. All of his assignments are appropriate, and his tests are fair.

2. MST Degree Students

Professor Porter took over as chairman of the MST Committee in 1985. Since 1986 he has directed twenty students to the degree. This compares to seven in the period 1980-85.

3. His work with the Linear Algebra Curriculum Study Group has resulted in a set of recommendations for the first courses in linear algebra. They are having an effect on the teaching and content of this course. In particular, many publishers are contacting Duane and the other three organizing members to review new texts. They want to be sure the spirit of the recommendations are included in these new books.

4. Elementary and Secondary Education Majors

These students are in the College of Education so are not in general recruited by the Mathematics Department. However, Duane worked with the College of Education to improve the mathematics training of those students in at least two ways. (1) He was instrumental in getting the number of required mathematics hours increased. (2) He was instrumental in gaining College of Education approval to allow the Mathematics Department freedom in the selection of courses for these students as well as in the selection of content for these courses.

UNIVERSITY OF MARYLAND AT COLLEGE PARK

DEPARTMENT OF MATHEMATICS

November 30, 1993

To the Mathematical Association of America:

I am delighted to support the nomination of Dr. A. Duane Porter for the MAA "Award for Distinguished University Teaching of Mathematics." I have observed Duane's abiding interest in students for nearly four years, as we have worked together on a nationwide program to modernize the teaching of linear algebra.

Every year since 1990, the annual MAA meeting has included a special session on linear algebra teaching. Duane was one of the main persons responsible for those sessions. He organized the first session on his own, to report to the mathematics community some ideas generated at a 1989 summer conference on linear algebra, which he had conducted at the University of Wyoming. Over 300 persons attended that first session, and their enthusiastic response convinced Duane and others that there was a strong interest in revitalizing linear algebra teaching, which had not kept pace with modern developments in linear algebra.

In 1990, Duane Porter, David Carlson, Charles Johnson, and I formed the Linear Algebra Curriculum Study Group and obtained an NSF grant that funded, among other things, a week-long conference on the linear algebra curriculum. At that conference, Duane's interest in students became apparent. His motivation for curriculum reform was to make the linear algebra course more useful and accessible to the students.

Since 1990, the LACSG has organized linear algebra (teaching) sessions at the annual joint AMS/MAA meetings and at SIAM conferences, with up to 35 speakers and several hundred persons in the audience. Duane presided and spoke at the AMS/MAA sessions, and he coauthored articles for the College Mathematics Journal. Also, individual members of the LACSG have spoken at smaller conferences and departmental colloquia. Duane has probably been the most active speaker, giving talks on the linear algebra curriculum at NCTM and AMATYC annual meetings, and speaking at a variety of places around the country.

The activities of the Linear Algebra Curriculum Study Group are beginning to bear fruit—in the way faculty teach their courses, in some changes in departmental syllabi, and even in some recent textbooks—and Duane Porter has been instrumental in accomplishing this.

Professor Porter's work with the LACSG complements his activities at the regional and local levels to promote good teaching in mathematics. His career provides a model for distinguished teaching to which we can all point with pride. I feel honored to have had a chance to work with him.

Sincerely,

David C. Lay

David C. Lay
Professor

E-MAIL: carlson@sdsu.edu, crjoh2@wmmvs.bitnet, lay@lakisis.umd.edu, adporter@corral.uwyo.edu

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Western Illinois University
BOARD OF GOVERNORS UNIVERSITIES

MATHEMATICS
College of Arts and Sciences
476 Morgan Hall
Macomb, Illinois 61455-1396
309/298-1054 or 298-1382

December 3, 1993

TO: Mathematics Association of America

FROM: Dr. Melfried Olson
Professor of Mathematics & Mathematics Education

RE: Supporting letter for A. Duane Porter's nomination for Distinguished University Teaching of Mathematics.

As a colleague of Duane Porter's from 1975 to 1986, I observed Duane in many professional situations. He has excelled in numerous professional endeavors. Duane is an excellent teacher at the undergraduate and graduate levels. His devotion to excellence is matched with a special caring. This combination is extremely important to students as can be seen by their comments about his teaching.

Duane has secured significant amounts of grant money, and interestingly, for teaching, research and service. His active involvement in activities of the Rocky Mountain MAA is well documented and has led to several years involvement in the Rocky Mountain Mathematics Consortium Summer School. These summer schools have brought together people throughout the region and nation for in-depth studies.

Inservice work with teachers is another activity in which Duane's special style shines. He has a knack of engaging teachers with interesting applications prior to the current trend. Duane has been actively working with teachers and students in the public schools since I've known him. He was making presentations to packed audiences at regional and national meetings if MAA and NCTM on matrices and other discrete mathematics topics since 1976.

Duane also was a leader in a consortium of community college mathematics teachers in Wyoming. It is hard to put into words the respect these people have for Duane. His honesty, integrity, and competence meant that people trusted him and sought his advice. This respect is also shown by his colleagues and students.

Duane's dedication to the teaching of mathematics, at all levels, is difficult to match. His initiative, creativity, exuberance, and activity have shaped the lives of students and teachers nationwide.

UNIVERSITY OF WYOMING

Department of Mathematics
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P.O. Box 3036
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Gauss @ CORRAL.UWYO.EDU

November 21, 1993

MAA, Rocky Mountain Section
Selection Committee for Distinguished Teaching Award

This is to support the nomination of Duane Porter for an Award for Distinguished College or University Teaching of Mathematics.

For over 25 years I watched as he taught the basic courses for elementary teachers through various levels including the direction of Ph.D. students. He has had wonderful results at all levels. In particular, I have not seen anyone else as successful with those students who, dreading mathematics, plan to enter elementary teaching. Numerous students from his algebra classes, who later took my courses, I found were very well prepared indeed.

In my opinion, it is very important to emphasize his off-campus efforts. These involved bringing in and spreading ideas for local improvement, as well as improving his own teaching. The broader effects of this teaching of his fellow teachers is very important. Notable state-wide efforts include his work with and as director of the Science and Mathematics Teaching Center and his encouragement and support for the continuation of the regular meetings of the Community College teachers (after grant money died). As a director and representative from UW for the Rocky Mountain Mathematics Consortium, he has returned many fine teaching ideas to the state and to our students. His grants involve work with groups of teachers at various levels from elementary school through college; also he has served on review panels for grants.

His recent work with the Linear Algebra Curriculum Study Group has influenced modernization and improvements in our own basic course in that area. This panel has attracted national and international attention. Such efforts improved and influenced the classroom teaching of many of the rest of us. In particular, by using these recent suggestions, I am certain that I taught a much better linear algebra course the last time through. His own excellence improves the teaching in the classrooms of others.

I must emphasize that during these same times his research program has led to numerous publications and he carried more than his share of departmental duties along with his excellent teaching.

Sincerely,

R. G. Buschman
Prof. of Mathematics

November 28, 1993

Mathematical Association of America

I recommend Dr. A. Duane Porter for the Mathematical Association of America Award for Distinguished University Teaching of Mathematics. I have had the pleasure of having Dr. Porter as my teacher as an undergraduate mathematics education student and as a graduate student in mathematics. This professional relationship has spanned many years and at each encounter I have found that Dr. Porter had new materials and fresh ideas to stimulate the student in me.

Dr. Porter has been directing, supporting and teaching summer institutes for public school teachers on a variety of mathematical topics at least since the early 1970's when I started to attend. He is always in the forefront of teacher education, striving to give the public school teacher new ideas to help motivate students as well as to improve their teaching skills. Within the last month Dr. Porter has received a verbal commitment from the National Council of Teachers of Mathematics for a $1.5 million grant funding a program designed to assist high school math teachers returning to the University to work on their Master's degrees.

In 1981 I began work toward my Master of Arts in Teaching degree in Mathematics. I worked with Dr. Porter and under his tutelage for two years at the Science and Mathematics Teaching Center at the University of Wyoming. While he was the director of the Teaching Center during this time, he still had time to expand my teaching repertoire, to introduce me to many of the community college math instructors in the state of Wyoming, to encourage me to attend their state meetings and to participate by presenting a workshop.

Dr. Porter has been instrumental in developing the state-wide yearly Mathematics Articulation Conference held at one of the state's seven community colleges in the spring. Since 1976 he has been the conference director although to attend the conference one would never realize he is directing. He directs by example and the conference runs like a well-oiled machine; this makes the meeting meaningful for every one attending.

Recently Dr. Porter has been working with the community colleges on the course sequence for the Mathematics Education Curriculum for all the state community colleges as well as the University and has been instrumental in statewide adoption of this curriculum.

Dr. Porter is the type of teacher I emulate. The University of Wyoming is fortunate indeed to have this man on staff.

For these reasons I recommend Dr. A. Duane Porter be nominated for the Mathematical Association of America Award for Distinguished University Teaching of Mathematics.

Most Sincerely,

Maryanne Marietta Kirkpatrick

Maryanne Marietta Kirkpatrick, B.A. 1969; M.A.T. 1983

Metropolitan State College of Denver

Department of Mathematical and Computer Sciences

December 6, 1993

The Mathematical Association of America
c/o The Department of Mathematics
University of Wyoming
P.O. Box 3036
Laramie, Wyoming 82071

Dear Reviewers:

The purpose of this letter is to support the nomination of Professor A. Duane Porter for the "Mathematical Association of America Award for Distinguished University Teaching of Mathematics". It is my belief that he is richly deserving of this award. Some of the reasons for my belief are detailed below.

I have known Dr. Porter for nearly thirty years as a student first and later as a colleague. As a student in his classes during the late sixties, I found him to be an excellent teacher. He was caring and supportive of his students while a very thorough professional mathematician. His lectures were clear and concise and his style was open and friendly. He covered much material in his classes without leaving students lost in his dust. In fact, his teaching style impacted my own approach to teaching long after I left Wyoming.

Later, as a colleague in the teaching community in the Rocky Mountains, I was able to see a different side of Dr. Porter. He has been one of the most active participants in the Rocky Mountain Section of the MAA, having served twice as Chair of the Section. In addition to this distinguished service, he has organized many sessions and made many presentations at these meetings. I also know that he has been very active in the National Council of Teachers of Mathematics at the national, regional and statewide levels.He has also organized sessions on teaching at the national level of the MAA.

Dr. Porter is a distinguished teacher, scholar and professional. He has won the Standard Oil Teaching Award in 1980 and the Arts and Sciences College Teaching Award in 1992. I believe that he is a wonderful candidate for the MAA Award and I recommend him most highly for this award.

Sincerely,

Larry S. Johnson

Larry S. Johnson,
Professor of Mathematics
Campus Box 38
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Denver, Colorado 80217-3362
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