PNW-MAA Annual Meeting at The Seattle Pacific University April 6-7, 2001

Planners are busy organizing this year's Annual Meeting of the Pacific Northwest Section of the MAA to be held at Seattle Pacific University in Seattle, Washington.

Keynote speaker **Colin Adams** of Williams College will join us for two presentations on Saturday. **Aparna Higgins** of the University of Dayton will conduct a minicourse on research with undergraduates and will give a talk on Saturday. Other planned events include a workshop on Grant Writing and PNW Project NExT activities.

Contributed papers in all areas of mathematics are being solicited. Student papers are especially encouraged.

Information on this year's meeting including registration forms will be found at http://www.spu.edu/~bgill/pnwmaa/ and at the section homepage http://www.maa.org/pnw

Special in this issue

Mathematics Placement: What some northwest colleges are doing

Features

PNW Project NExT
New Experiences in Teaching
Sponsored by the MAA with support from the Exxon Educational Foundation

Project NExT is a professional development program for new college-level faculty interested in improving the teaching and learning of undergraduate mathematics. The national program was instituted in 1994 and provides workshops and an electronic network for its members. (More information on the national program can be found at http://archives.math.utk.edu/projnext/) The PNW Project NExT is an extension of the national program to the sectional level. PNW NExT Fellows will meet once a year to discuss topics related to teaching as well as other issues of importance to beginning faculty. During the year, PNW NExT members will communicate via an electronic discussion group. In addition, there will be an opportunity for section fellows to participate in the national program at the Madison Mathfest. (For more information on the PNW NExT visit http://www.math.umt.edu/pnwnext)

Eligibility: The PNW NExT program is designed for new mathematics faculty who have an interest in teaching. Applicants meeting the following criteria are encouraged to apply.

- possess an interest in teaching mathematics,
- have a Masters or Doctoral degree in a mathematical science,
- hold a position at a post-secondary institution and be a non-tenured full-time faculty member,
- have either obtained a terminal degree within the last four years or are in the first four years of full-time college teaching,
- are available to attend the PNW NExT meetings for the next two years. (April 6-7, 2001 at Seattle Pacific University, June, 2002 at Portland State University.)

Program: Workshops for PNW NExT Fellows will be scheduled in conjunction with the sectional MAA meeting. During the year PNW Fellows and consultants will be linked together by an electronic network on which discussions can continue. Fellows are expected to participate in the PNW NExT meeting the following year and to interact with the new group of Fellows.

Support: Funding for lodging and registration for the first meeting will be provided. Institutions employing Fellows are expected to provide financial assistance for all other expenses associated with the two meetings. The level of this support should be addressed in the chair's letter.

Application Procedures: Applications should include the application form (also available at http://www.math.umt.edu/pnwnext), brief teaching and scholarly activity statements, a vita, and a letter of support from one's chair or other supervisor. The deadline for applications is February 7, 2001. Send two copies of the application packet to the address below.

Questions: Inquires can be sent by postal mail (address below) or electronic mail (mcnulty@selway.umt.edu).

Jenny McNulty
Department of Mathematical Sciences
The University of Montana
Missoula, MT 59812-0864
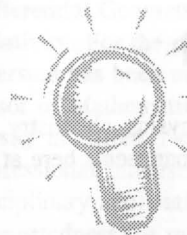
PNW Project NExT
Fellow Application Form

Name: _____

Address: _____

_____

Telephone: _____   E-mail: _____

Highest Degree Obtained
_____
Year _____ Institution _____

Institution where you will be teaching 2001-2002
_____

Application should also include:

- a curriculum vita

- a brief statement of one's teaching activities (Please include specific examples regarding your approach to teaching and learning as well as a description of what you hope to get out of the program.)

- a brief statement of one's scholarly activities

- a letter of support (Please ask your chair, or other supervisor, to write a statement of support, indicating the amount of financial support your school can give.).

The deadline for application is February 7, 2001.
Send three copies of the application packet to the address below.

Jenny McNulty
Department of Mathematical Sciences
The University of Montana
Missoula, MT 59812-0864

For inquires you may use US mail, electronic mail (mcnulty@selway.umt.edu), or telephone (406-243-2473).

News from you

Whitman College
Brian Jue, Ph.D. UC Santa Barbara, has joined the faculty while **David Guichard** is on sabbatical leave. Prior to coming to Whitman, Dr. Jue was a visiting assistant professor at Furman University in South Carolina

Larry Anderson is beginning a 3-year term as department chair.

Linfield College
Jennifer Firkins, Ph.D. 2000, University of Oregon is a tenure-track Assistant Professor. Jennifer's area of research is non-commutative ring theory. Jennifer is a 2000-2001 Project NExT PNW Sectional Fellow.

Stephen Bricher, Associate Professor of Mathematics, spent his fall 1999 sabbatical at University of Colorado's applied mathematics department. Last summer he discussed the work he did at CU at the World Congress of Nonlinear Analysis meeting held in Catania, Sicily where he delivered a paper titled "Blow-up behavior in integro-parabolic gaseous ignition models."

During the summer of 2000 two of our outstanding students participated in mathematics programs. **Kami Larripa**, senior from Benicia, California, participated in the George Washington University Summer Program for Women in Mathematics. **Bethany Bradfield**, senior from Salt Lake City, Utah, worked on mathematical modeling of somolumines-cence in an interdisciplinary project

including the physics, chemistry, and mathematics departments here at Linfield.

Pacific University
Christine Guenther, Assistant Professor, spent one month this summer in Tuebingen working with a diverse group on Ricci Flow.

Gowri Meda, Assistant Professor, was awarded an OCEPT fellowship.

Jim Rulla, recipient of Arkansas Professor of the year award, has joined the faculty for one year as a visiting associate professor.

University of Puget Sound
DeWayne Derryberry has joined us as an Assistant Professor with a specialty in Statistics.

Richard Fast has been hired as a new Instructor.

David Scott has a John Lantz Sabbatical Fellowship for a year-long sabbatical project at Boeing.

Long-time members of the department, **Bruce Lind**, **Ron VanEnkevort** and **Rosemary Hirschfelder**, each will retire at the end of Spring semester.

Central Washington University
The mathematics department at Central Washington University welcomes three new faculty members.

Stuart Boersma earned his Ph.D. from Oregon State University in

Continued on next page

Differential Geometry & General Relativity. For the past six years Dr. Boersma has been an Assistant Professor of Mathematics as Alfred University in Alfred, New York. Professional Interests include Interdisciplinary applications (and inter-connectedness) of mathematics & science, and active-learning techniques. He is looking forward to establishing some inter-campus projects among the NW section members and he recently finished a Grant Writing Leadership Workshop sponsored by the MAA.

Aaron Montgomery, a native of Ashland Oregon, received a B.A. from Pomona College, an M.A. and Ph.D. from University of Wisconsin, Madison. For the past three years, he has been teaching as a Visiting Assistant Professor at Purdue University North Central where he became involved in researching undergraduate mathematics education and has joined ARUME and RUMEC.

Stephen P. Glasby obtained his PhD in computational group theory in 1988 from the University of Sydney, Australia. He has served as a lecturer at Victoria University, New Zealand and at University of Sydney, and a senior lectureship at the University of the South Pacific in Fiji. He left the tropics to accept an Associate Professorship at Central Washington University. His interests include group theory, representation theory, and computational algebra.

University of Alaska, Anchorage
Four new tenure-track faculty have joined the department.

Larry Foster comes from the commercial sector where he directed projects ranging from aerospace vehicle design to environmental remediation. Prior to this he taught mathematics at the University of Alabama Huntsville. Dr. Foster has a Ph.D. in mathematics and masters degrees in both mechanical and civil engineering. His current interests are in hydrogeology and dynamical systems.

Derek Webb graduated from Montana State University with a Ph.D. in Statistics. He most recently worked for Hewlett Packard in Corvallis, Oregon. Derek specializes in industrial statistics, experimental design, and biological statistics, and will be teaching Applied Statistics courses at UAA.

Kenrick Mock graduated from the University of California, Davis with a Ph.D. in Computer Science. Prior to joining UAA, he worked for Intel Corporation and held appointments at Portland State University and Washington State University at Vancouver. His area of research is Artificial Intelligence, and he will be teaching both introductory and upper division courses in Computer Science.

Kirk Scott will also be teaching both introductory and upper division Computer Science courses. He graduated from North Dakota State University with a Ph.D. in Computer Science. Prior to joining UAA, he taught at North Dakota State University and prior to that at the College of Saint Scholastica in Duluth, Minnesota. His area of interest is database management systems.

Continued on next page

News from You *(continued from page 5)*

Portland State University

The Department of Mathematical Sciences at Portland State University welcomes three new faculty members.

John Caughman received his Ph.D. in mathematics from the University of Wisconsin in 1998. Prior to joining the faculty at PSU, he was a Visiting Research Instructor in Mathematics at Michigan State University for two years. John's major area of research interest is in algebraic combinatorics. In this field, techniques from algebra are applied to the study of combinatorial objects, such as graphs or association schemes. Association schemes are quite general combinatorial objects as any finite group, building, symmetric block design, or distance regular graph can be viewed as an association scheme. As a result, the theory of association schemes brings together techniques from many different areas of mathematics, including (among others): graph theory, orthogonal polynomials and classical posets. Association schemes have proved useful to coding theory, design theory, and the construction of knot and link invariants. Much of John's work deals with bipartite P- and Q-polynomial association schemes. This family includes the incidence graphs of all symmetric block designs, bipartite dual polar spaces, hypercubes, and Hemmeter graphs, as well as some examples of certain sporadic simple groups and link invariants. John has already received several awards for teaching excellence in his short career. They include Outstanding Teaching Awards at University of Wisconsin and a J. S. Frame Teaching Award Nominee by students at Michigan State University.

Jong Sung Kim received his Ph.D. in statistics at the University of Iowa in 1999. He joins the faculty on a continuing basis following a one year appointment at PSU during 1999-2000. Jong Sung's major area of research interest is in proportional hazards models based upon partly interval-censored data. This includes right-censored, left-censored, and interval-censored data. Jong Sung employs maximum likely estimates for the proportional hazards model with partly interval-censured data. Under appropriate regularity conditions, the MLE of the regression parameter and the cumulative hazard function are shown to be consistent and asymptotically normal. Jong Sung has also conducted extensive simulations to investigate the finite sample behavior of his estimators. Simulation studies show the proposed methods work well and the asymptotic distributional results can be used to approximate the distribution of the MLE for moderate and realistic sample sizes. Jong Sung is also is a departmental resource in technology oriented statistics with skills in computer languages, statistical packages and operating systems.

Jan Pieter Veerman received his Ph.D. from Cornell University in 1986. Since that time he has held Post-doctoral positions in Spain and the US as well as Visiting professorships in Brazil and the US, most recently at Penn State University. Pieter's interests include Fractal *Continued on next page*

Geometry (continuity properties of dimension, tilings), Modeling (granular flow, infectious diseases), Dynamical Systems (mainly low dimensional maps), Geometry (focusing of geodesics in general length-spaces, counting closed geodesics), Mathematical Physics (applications of statistical mechanics, foundations of Physics), Interdisciplinary work (including biomathematics and epidemiology), and Languages. His achievements include calculation of scalings in circle-maps with a critical point, an important step in the understanding of renormalization of dynamical systems; complete description of asymptotic geometry of the minimizing cantor sets with irrational rotation in highly non-linear twist maps; semi-continuity of the Hausdorff dimension of the invariant sets of semi-conformal iterated function systems, and new models for the motion of a particle falling down a bumpy surface with applications for granular flow. Pieter has been an invited speaker at a number of national and international meetings on Dynamical Systems. He has also been a leader in organizing meetings, conferences or seminars on areas of interest.

Send your news to

Editor, Matters Mathematical
Department of Mathematical Sciences
Pacific University
2043 College Way, Forest Grove, OR 97116
or
boardman@pacificu.edu

Nominations Sought for Editor of Matters Mathematical

The PNW-MAA is seeking an editor of this newsletter, Matters Mathematical. The newsletter currently appears two times per year and is distributed to approximately 1100 PNW-MAA members and national section officers.

An individual interested in editing the newsletter should have access to local printing and mailing services and be familiar with page layout software and HTML.

Nominations should include name, affiliation, contact information and any relevant information. Please send nominations to Michael Boardman, Chair, Dept. of Mathematical Sciences, Pacific University, Forest Grove, OR 97116, boardman@pacificu.edu. Self-nominations are welcome!

Mathematics Placement

Edited by Michael Boardman, Chair-Elect

Many of us use a placement system to determine appropriate mathematics courses for incoming students. In this article, faculty from several northwest colleges and universities describe the system in place at their institution for mathematics placement.

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Pacific Lutheran University
by Celine Dorner

Every student who wishes to register for their first freshman mathematics course must complete a survey and take a mathematics placement test. The multiple choice computational test was designed by the Mathematics Department.

The placement test is scored differently for each of four major freshman courses. The scoring method is based on statistical findings concerning the test questions and student performance – that is, those questions which are useful in prediction of successful performance in a course receive a high number of points for that course and those questions which are not useful in prediction of performance receive low or zero point weight for that course.

After the test is scored, each student is given an "overall placement score" for each entry level course. The overall placement score for a course combines the placement test score for that course together with information from the survey questionnaire and with information from the registrar's files including high school GPA and Math SAT scores. The formulas for computing the overall placement scores are statistically based, using regression methods to optimize the correlations between overall placement scores and course performance.

A mathematics faculty member is appointed to manage the Mathematics Placement System and make recommendations. When a recommendation is made about placement in mathematics courses for a particular student, two things are done. (a) A student is made eligible for any one or more of the freshman courses (b)A paragraph of recommendations is written. The written information is made available to all advisors and the Registrar. As a matter of routine, a letter is sent to each student informing him/her of the mathematics placement recommendation.

The mathematics placement system has been a very successful tool in placing students in the proper introductory courses at Pacific Lutheran University.

Before the placement system became part of the university registration system in the mid to late 1980's approximately 25-33% of students were not successful (C- grade or better) in beginning mathematics courses. These percentages are now way down, with only 14% unsuccessful in the two most populated courses, business calculus and first semester calculus.

Oregon Institute of Technology
by Elaine Deutschman

Oregon Institute of Technology uses the PC-based Accuplacer test for placing students into mathematics classes. Scores and placements are outlined in the table below.

Recommended Placement	Arith. Test Score	Elem. Alg. Test Score	College Level Test Score
Elementary Algebra	70 – 120	32 – 62	
Intermediate Algebra		53 – 73	20 – 56
College Algebra		74 – 120	57 – 74
Trigonometry			75 – 99
Differential Calculus			100 – 120

All incoming students take the placement test unless they have transfer credit in calculus or more advanced courses. Transfer credit for a course below calculus is used as an advising tool but the student is strongly encouraged to adhere to the recommended placement indicated by the placement test.

A student is informed, in his/her letter of acceptance, of both the required placement test and the practice placement tests that are on the OIT Web page. The recommended placement from Accuplacer may be over-ridden through an interview with a math advisor who is available at all pre-registrations. That advisor considers such things as the time lapse since the student's last math course, the student's SAT score and high school GPA. An on-the-spot quiz may also assist in proper placement. A student may re-take the placement test (the student is charged for additional administrations of the test) after a period of study and review.

University of Alaska, Anchorage
by M. Hilary Davies

Placement tests are available for mathematics courses up to and including Calculus I. Students who do not have the prerequisite(s) are advised to take a

DISTINGUISHED TEACHING AWARD

Officers of the PNW section of MAA solicit your nominations for the Distinguished Teaching Award. This award is given once a year to one college teacher in the Pacific Northwest. The recipient of the award from our section is then a nominee for the Deborah and Franklin Tepper Haimo Award of the MAA. Eligibility requirements and guidelines for the nomination are given below.

Eligibility

- College or university teachers assigned at least half time during the academic year to teaching a mathematical science in a public or private college or university (from two-year college teaching through teaching at the Ph.D. level) in the United States or Canada. Those on approved leave (sabbatical or other) during the academic year in which they are nominated qualify if they fulfilled the requirements in the previous year.
- At least five years teaching experience in a mathematical science.
- Membership in the Mathematical Association of America.

Guidelines for Nomination: The nominees should

- be widely recognized as extraordinarily successful in their teaching. "Teaching" is interpreted in its broadest sense (it may include activities such as preparing students for mathematical competitions at the college level, for example, the Putnam Prize Competition or the Mathematical Contest in Modeling, or attracting students to become majors in a mathematical science or to become Ph.D. candidates)
- have teaching effectiveness that can be documented.
- have had influence in their teaching beyond their own institutions. This can include demonstrated lasting impact on alumni, influence on the profession through curricular revisions in college mathematics teaching with national impact, influential innovative books on the teaching of college mathematics, etc.
- foster curiosity and generate excitement about math in their students.

If you would like to nominate someone, please complete and return the preliminary form on then facing page.

Preliminary nominations will be screened by the Section Screening Committee which will select the finalists. The home institutions for the finalists will then be asked to prepare a complete nomination portfolio.

Complete nomination portfolios include
- a letter of support by the nominator
- two letters of support by colleagues
- two letters of support by students
- additional evidence of distinguished teaching

Deadline for submission of nomination portfolios is Jan 14. The committee will select the winner by the end of January.

Please Contact *John Beebee, Department of Mathematical Sciences, University of Alaska, 3211 Providence Drive, Anchorage, AK 99508*; Phone: 907-786-1656; email: afjcb@uaa.alaska.edu for additional information.

Distinguished Teaching Award Nomination

Complete this form and return to

Mary Ehlers
Treasurer/Secretary
PNW-MAA
Department of Mathematics
Seattle University
Seattle WA 98122-4460
DEADLINE: DECEMBER 1, 2000

Nominee Information

Name of Nominee

Name of College or University

Work Address

Work Phone   Home Phone

Number of years teaching experience in a mathematical science

Has the nominee taught at least half-time in a mathematical science for the past three years (do not count sabbaticals)

Activities related to teaching, if any (list only 5 most significant)

Membership and significant activities in relevant professional organizations

Previous awards for teaching, if any

Additional relevant information

Nominator Information

Name

Address

E-mail

Work Phone

Placement Systems (continued from page 9)

placement test. The department has a different placement test for each course, which were written by department faculty. Placement tests are given on a walk-in basis at no charge three times a week. I am a member of a campus-wide Assessment Committee that is reviewing the placement of students into lower division courses. Recommendations and pilot programs may begin later this year.

Seattle University
by Wynne Guy

First year students without AP calculus credit or previous college mathematics credits place into one or more of the following mathematics courses:

MATH 107	Mathematics: A Practical Art
MATH 110	Functions and Algebraic Methods
MATH 118	College Algebra for Business
MATH 120	Precalculus: Algebra
MATH 121	Precalculus: Trigonometry
MATH 130	Calculus for Business
MATH 131	Calculus for Life Sciences
MATH 134	Calculus I

The mathematics course in which a student enrolls depends upon the intended major as well as the student's SAT or ACT mathematics score, or Mathematics Placement Exam score. To determine which courses a student is eligible to take, go down the SAT or ACT column until you find the range which includes the student's score. From there, go across the row to the first column, which gives the eligible mathematics courses.

Math Courses	SAT score	ACT score	S.U. Alg. Placement Score
107, 110	450 - 530	18 - 22	4 - 14
118, 120	540 - 630	23 - 27	15 - 24
121, 130	620 - 800	27 - 36	23 - 30
131	620 - 800 and TPS[1] ≥ 4[2]	27 - 36	23 - 30 & TPS ≥ 4 or MATH 121
134	640 - 800 and TPS ≥ 6[2]	28 - 36	25 - 30 & TPS ≥ 6 or MATH 121

[1] Trigonometry Placement Score

[2] Corequisite for MATH 134 and 131 is MATH 121 or indicated score on trigonometry. placement exam

A student who places into a mathematics course may opt to take a course with a lower number, but will not be allowed to take a course higher than placed. However, students who do not feel that their SAT or ACT score accurately represents their mathematical knowledge may request to take the Seattle University Mathematics Placement Exam to demonstrate this knowledge.

The Mathematics Department Placement Exam has two parts, 30 points on algebra and 9 points on trigonometry. The two parts of the exam are scored separately, so that a perfect score would be 30 T 9, or on Colleague, the score would appear as 3009, the last digit being the trigonometry score.

MATH 121 (Precalculus: Trigonometry) is a corequisite for both MATH 134 and 131, if a student has not been exempted by the departmental Placement Exam. Because the SAT and ACT exams do not cover trigonometry topics, students scheduled to take MATH 134 (Calculus I) or MATH 131 (Calculus for the Life Sciences) will be required to take a trigonometry exam on the first day of class if they have not already taken the Mathematics Department Placement Exam. If a student does not receive a sufficiently high score on the exam, he or she will be required to enroll concurrently in MATH 121 (Precalculus: trigonometry), which is a 2 credit course. Therefore, if a student is going to be enrolled in MATH 134 or 131 and does not wish to take this additional course, he or she should review trigonometry before the beginning of the quarter. A student may also call the Mathematics Department (296-5930) to take the trigonometry placement exam during preregistration, to determine whether or not enrollment in MATH 121 is required.

A student who has taken the AP Calculus Exam (AB or BC), and has a score or 3 or 4 will receive credit for any one of the following: MATH 134, 131, or 130. With a score of 5, a student will receive credit for MATH 134 and 135.

Linfield University
by Martha VanCleave

Linfield University's placement and advising form is included on the following pages.

LINFIELD COLLEGE
Department of Mathematics
Placement/Advising Form

Welcome to the Linfield College Mathematics Department. This form will help you determine the courses you will need to take, and the correct course in which to begin your study. If you have questions, feel free to bring them to any member of the Linfield Mathematics Department. Best wishes.

Name: [_____]

Math Proficiency Requirement

Enter Your Math SAT Score: [_____]
If your score is 520 or more, you have met the Mathematics Proficiency Requirement

Enter your conclusion: Met ☐   Not Met ☐

If your score is less than 520 or you have not taken the SAT, you will need to do one of the following:
1. Take and pass the Mathematics Proficiency Examination, or
2. Take Math 115, or any course of three or more credits numbered 130 or above, and earn a grade of C or better.
(Note: A grade of C- does not meet the Mathematics Proficiency Requirement.)

Find Your Level

Level	High School Course	How did you do? (Check the appropriate box)
1	Algebra I (Often taken during the freshman year)	Didn't take it ☐ Took it, did so-so ☐ Took it, did well ☐ (A or B)
2	Geometry (Often taken during the sophomore year)	Didn't take it ☐ Took it, did so-so ☐ Took it, did well ☐ (A or B)
3	Algebra II (Often taken during the junior year—this course might include trigonometry)	Didn't take it ☐ Took it, did so-so ☐ Took it, did well ☐ (A or B)
4	Math Analysis (Also called Elementary Analysis, Precalculus—includes trigonometry and the study of other functions)	Didn't take it ☐ Took it, did so-so ☐ Took it, did well ☐ (A or B)
5	Calculus	Didn't take it ☐ Took it, did so-so ☐ Took it, did well ☐ (A or B)

Where should you begin at Linfield?

Highest level in High School		Beginning level at Linfield
[____]	Did so-so, enter same number → Did well, add 1	[____]

The mathematics courses you will need to take at Linfield will be determined by your major:

Business Majors: 130; 150 or 180; 190 recommended for graduate school

Economics Majors: 130; 150 or 180; 190 recommended for graduate school

Science Division Majors (Biology, Chemistry, Physics, Mathematics, Computing Science)
Chemistry: 180, 190. Recommended: 200, 210
Physics: 180, 190, 200. Recommended: 210, 310
Mathematics: 130, 180, 190, 200 or 350, 310 and 15 more hours
Computing Science: 130, 180 and one of 190, 250, 310

Other Majors:
Elementary Education: 117-118 required for a basic license
Nursing: 130 Required
Psychology: 130 Required

Use the table below to develop your plan

Using the information above, check the courses you need to take in the left column in the table below.
Fill in your beginning level number from the last box on Page 1

[_____]

You should begin with a course at or below this level.
Fill in when you will plan to take each course.

Need to Take (Check the courses you need)	Linfield Courses	Level	When to take it
☐	Intermediate Algebra Math 115	3	
☐	Introduction to Statistics Math 130	4	
☐	Precalculus Math 140	4	
☐	Finite Mathematics with Calculus Math 150	4	
☐	Calculus I Math 180	5	
☐	Calculus II Math 190	6	

Note: Use the above table as a recommendation. You may register for whatever course you feel comfortable with. Courses are scheduled so that it is easy to change from one beginning course to another. If you are unsure, sign up for the higher course—you can drop back later, if necessary.

Notes from the Chair
by Jenny McNulty

Greetings! As you can see from the newsletter there are many exciting things going on in our section. I would like to comment on several of these announcements. First, congratulations to the newly elected officers of the Pacific Northwest section of the MAA and to those officers whose terms have just ended, thank you for your hard work and service to the section.

The next meeting of the PNW MAA will take place in Seattle at Seattle Pacific University on April 6-7, 2001. The organizing committee has been busy over the summer planning the meeting and has put together a spectacular program. As the meeting precedes the publication of the spring newsletter, this will be the only announcement of the meeting. Mark your calendars now!! Future sites of the meetings include Portland State University in June, 2002 (joint with AMS) and Whitman College in 2003. If your institution would like to host the meetings or if you have a suggestion of a location (Alaska?), please let us know.

Nominations are being solicited for the distinguished teaching award. A short (yes, short) nomination form is included. If you know of a deserving colleague, please take a moment and nominate him or her. The section award winner is then eligible to be nominated to the national award.

The PNW Project NExT had a successful first meeting this spring. NExT Fellows and Consultants met prior to the PNW MAA meeting and discussed various topics relating to teaching including using active learning, the E-GEMS project, and learning styles. The group will meet again on April 6, 2000. To apply for the 2001 PNW NExT program please see the announcement included in the newsletter or visit the website: http://www.math.umt.edu/pnwnext .

Lastly, the topic of an electronic newsletter was discussed as the last business meeting of the section. Delivering the newsletter electronically will save both time and money. The newsletter could be delivered via e-mail or posted on the web. An electronic copy of this newsletter is posted on the section web page: http://www.maa.org/pnw . Please take a look and share your opinion with us!

Math Expectations
by Marj Enneking, Governor

What do we expect of our graduating mathematics majors? As my own department grappled with this question, a draft list of objectives emerged. I'm sharing this draft with the hope that you will 1) be kind (after all this is our first attempt at something like this!); and 2) share through this newsletter your own department's ideas and developments.

We have selected three objectives from the following list for primary focus (in italics). For these objectives, we have written rubrics and are now looking at ways to assess whether students meet these objectives and whether our program is structured to help students to meet them.

Portland State Objectives for Mathematics Majors (draft)

Math tools
- *Familiarity with a variety of mathematical objects and systems, including building new systems from given ones and analyzing the results*
- *Ability to use functions to study mathematical systems and their properties*
- Ability to work from axioms
- Proficiency in the use of mathematical logic and language, set theory, and algorithms

Connections
- Awareness of applicability of math in other disciplines (physics, engineering, etc.)
- Familiarity with historical/social contexts of mathematics
- Ability to make connections in math from context to context
- Ability to build and use mathematical models of concrete situations or real phenomena
- Ability to use data and statistical techniques to solve a problem or make a supportable conclusion

Technology
- Proficiency in using calculators and computers to do mathematics and solve problems
- Awareness of limitations of technology

Communication
- *Proficiency in oral and written communication of mathematics to peers as well as to people with less mathematical background*
- Ability to work as part of a team to do mathematics

Governor's Column (continued)

Independent learning
- Proficiency as an independent and critical thinker
- Ability to use the library and other non-classroom resources to solve a problem in mathematics
- Ability to ask the right questions to learn something new or apply something known to a new situation

Attitudes
- Enjoyment and appreciation of the beauty of mathematics
- Ability to ask questions and to be persistent in seeking answers

This process came about in part from an innocent question at a departmental retreat: "What do you want your graduates to be like?" and in part from a directive from the Dean to develop graduation standards beyond specific course requirements. Have these sorts of questions emerged in your department? How do you learn about the general attitudes, knowledge and skills of your students?

● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●

Treasurer's Report
June 14, 2000
by Mary Ehlers, Secretary/Treasurer

Note: All funds currently are deposited in the account #2710046422 with InterWest Savings Back in Kent, WA under the name PNW section MAA and require the signature of the secretary/treasurer (or surrogate André Yandl) for transfer.

Balance on hand at last report (March 10, 1999) $5,035.90

Receipts 6,975.25

1999 MAA subvention	1,300.00
Interest	60.20
Registration fees from 1999 meeting	1,894.00
Vendors' fees and contributions for 1999 meeting	650.00
MAA 1999 book sale commission	11.05
Project NExT section grant	3,060.00

Disbursements 5,235.12

Expenses for 1999 meeting	4,141.75
Spring 1999 newsletter	384.30
Fall 1999 newsletter	375.82
Spring 2000 newsletter	333.25

Balance on hand June 14, 2000 . . . .$6,776.03

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