



IOWA SECTION MAA NEWSLETTER

VOLUME v No. 1

Edited by A. M. Fink

October 1968

This newsletter has several features that the reader should note. There is a report from Clinton Community College that is more detailed than is usually included in this newsletter. But it gives the rest of us a better idea of what the Community Colleges are doing. It's on page 2. On page 8 is a report of a new organization for the two year colleges. We have included a report on page 6 on the undergraduate math clubs in the state. This is an area where the Section could do better. Could someone give a pep talk at our spring meeting? Finally, on page 7 is a short report about the new membership drive. Please duplicate the form on that page if you need more than one. Note that the Section gets a rebate on all new applications that are sent through David Oakland.

The Spring Meeting of the Section is at Coe College on April 7-8. Think about talks to give, in particular, let's keep up the tradition of a good Friday afternoon of student talks.

NEWS FROM THE COLLEGES

Wartburg College

Prof. Josef Breutzmann attended the Centennial Celebration at the National Math Meeting in Providence and took the short course "Chaos and Fractals: The Mathematics behind the Computer Graphics." Dr. Lynn Olson participated in the two-week Geometry Workshop sponsored by COMAP with support from NSF. This workshop was held at Virginia Commonwealth University July 5-15. Dr. Chris Schmidt took the short course on Computer Networks at Boston University's WANG summer institute in Computer Science held June 20-24. Dr. August Waltmann attended the Sixth Mathematics Methods Conference held at St. Mary's College at Notre Dame with NCTM support June 29-July 1.

There are weekly seminars on "Chaos and Fractals" and "Geometry".

University of Iowa Statistics and Actuarial Science

The Department lost three of its regular faculty members at the end of the 1987/88 academic year. John Birch when from phased retirement to complete retirement. John was on the faculty for 24 years and was acting chairmen for two and one-half years. Stuart Klugman resigned his position as the Principal Financial Group Associate Professor of Actuarial Science to take a similar position at Drake University. Glenn Meyers resigned to take a position with Insurances Services in New York.

New on the faculty is Marianthi Markatou who just received her Ph.D. from Penn State University. There are six visiting faculty members. They are Peter Hackl, D.L. Hawkins, Syed Hossain, Subhash Kochar, Milorad Kovacevic, and Hhu-In Charles Lee.

Last year there were 102 graduate students, 58 in actuarial science and 44 in statistics. There are 87 undergraduate majors, 73 of these in actuarial science. It should be noted that of the graduate students, 45 are women, most of them in actuarial science.

Jim Calvin is the program chair of the Statistical Education Section for the 1989 ASA Annual Meeting. Jon Cryer has been working with alumnus Bob Miller (U of Wisc.) on a "revolutionary" text entitled "Business Statistics". Jon also received a citation from the Dean for excellence in teaching. Dick Dykstra spent the last year on developmental assignment at the Mathematical Sciences Institute at Cornell University. He was also made a Fellow of the American Statistical Association. Bob Hogg is the 1988 President of the American Statistical Association. As part of his duties he has been visiting many of the ASA Chapters. Russ Lenth is the ASA Iowa Chapter President for 1988-89. Dick Dykstra and Tim Robertson co-authored the book Order Restricted Inference with Tim Wright. George Woodworth received the Harry Kalven Prize of the Law and Society Association for distinguished scholarship in Law and Society. This prize was awarded for work on the Georgia death sentencing case. Skip Woolson had his book Statistical Methods for the Analysis of Biomedical Data published. He received a three year grant from the National Cancer Institute to study the analysis of sparse contingency tables in epidemiology.

Coe College

A new appointment is Dr. Bryant Julstrom as Asst. Professor of Math /Computer Science. He has a Computer Science Ph.d. from the University of Iowa and has been at the University of Minnesota-Duluth. Coe is in the process of installing the new IBM 6152 Computer system with all the fancy options.

Loras College

Larry Zettel is on a year's leave with both a sabbatical and a Fulbright Award. He is spending a year teaching at Chancellor College in Zoba, Malawi. John Friedell will be on leave the second semester this year. He will be at Santa Barbara, California for further study. Duane Kowba joined the faculty this fall as Assistant Professor. He received his Phd from Colorado State in 1982. He was at Loyola-Marymount and the Univ. of California_Davis before returning to his home state. He specializes in Differential Equations.

Last year the Department initiated a Speakers Bureau available to high schools within a couple hundred miles of Dubuque. Various faculty members made presentations to about a dozen schools.

Clinton Community College

In this report the word "instructor" is used in the generic sense because we have no faculty ranks in the Eastern Iowa Community College District (EICCD) which consists of Clinton, Muscatine, and Scott Community Colleges.

In the Eastern Iowa Community College District, high school courses like elementary and intermediate algebra and Euclidean plane and solid geometry are classified as developmental courses. Consequently, faculty that were previously in the Mathematics Department are now part of the Developmental Education Department. This change has also led to a new philosophy at the Clinton campus.

Our enrollments in these math courses have increased dramatically since the Regents' institutions have decreed that every student should have the equivalent of 3 years of high school mathematics. It is our hope that these institutions will enforce this requirement uniformly, not only during the times of expanding enrollment, but also during periods of declining enrollment. Because we have many more non-traditional, math-anxious students taking math courses, our new philosophy is to provide more help, both in class and outside of class for these students. A student now has the option of taking elementary and intermediate algebra for 5 or for 3 credit hours. This has enabled us to help students succeed, while at the same time, avoiding any "watering down" of courses. This is not an easy task as we now have adopted a 16-week calendar to replace our 18-week calendar (which also militates against student success.)

Betty Cobb, a former high school teacher with over 16 years of teaching experience, has been hired to replace Sharon Brege. Sharon resigned her Developmental Math position because her husband, a member of the U.S. Army Corps of Engineers, was transferred to Kentucky. Betty was assigned classes in both the Developmental and Math/Science Departments. She is currently completing work towards her Masters in Education Degree with a computer application emphasis at Marycrest College in Davenport.

Jerry Murphy, a full time drafting instructor, is also teaching a math class for the first time in many years. In addition, the following adjunct faculty have been hired to handle the increased Developmental Math enrollment: Dixie Shaff and Jeff Hippen at Clinton and Roger Hingtgen at the Maquoketa Community Center.

During the past year, three members of the Math/Science Department received awards. Dr. John Bonte and Dr. Thomas Gibbons received the Chancellor's Award for outstanding service to the Eastern Iowa Community College District. Dr. Bonte was instrumental in organizing and developing curricula for the newly formed Hazardous Material program, and Dr. Gibbons was responsible for molding the Computer Science program into its present form and was instrumental in helping to establish the college's Science and Technology Open House. Dr. Gibbons has also been active in politics and has been influential in promoting the value of the community college concept to the Iowa legislature. Chuck Kolsrud, mathematics instructor, received the Outstanding Faculty Award from the Alumni Association for "meeting with students at their convenience and taking the time to help them when they need it most." Kolsrud, with the help of David Andersen, also organized a "Directed Personalized System of Instruction" (DPSI) for the summer session Developmental Mathematics classes.

Northwestern College

Gordon Brumels has retired from the department. John Allen is on leave at Rensselaer Polytechnic Institute working on his Phd. He will be the department chairman next year. In the meantime, Henry Veldhuis of the Physics Department is that acting chair of the Math Department this year. New to the faculty is G. Keith Foster who is replacing Gordon Brumels. Shari Brink is replacing John Allen for the year.

Luther College

Reginald Laursen is on Sabbatical Leave during the January term and the second semester. He will be studying at the University of Arizona. Steve Hubbard is on Sabbatical Leave for the 1988-89 academic year. Steve is studying in the area of computer science at the university of Iowa.

The mathematics department graduated an all-time high forty mathematics majors in May 1988 (some of these had double majors). Of the total college enrollment of 2,214 this year (another all-time high), about 670 are enrolled in mathematics classes.

Iowa State University Statistics Department

Three new faculty began their duties this fall. Stephen Haslett has a Phd from Victoria University of Wellington, New Zealand. He also was a research assistant in the Sample Design Division of the Institute of Statistics and Operations Research at Victoria University. His areas of interest are sample surveys, time series, and contingency tables. Debapriya Sengupta, a recent Phd graduate of the University of North Carolina has interests in sampling, decision theory, and robust inference. John Stufken comes from the University of Georgia where he was an Assistant Professor after getting his Phd degree from the University of Illinois, Chicago. His areas of interest are experimental design, linear models and survey sampling.

Cornell College

This summer the Computer Science Department learned that their proposal "Integrating Graphics Workstation Technology into the Computer Science Curriculum" will be funded by the Instrumentation and Laboratory Improvement program of the National Science Foundation. This project will move almost the entire Computer Science curriculum to a network of 12 Apollo Workstations, six monochrome and six 8 plane color monitors. The co-principal investigators are Professors Tony deLaubenfels and James Freeman, both of whom would be happy to discuss this project with any interested party.

To strengthen the statistics offerings in the Mathematics Department, Professor Judy Vopava has introduced a new course "Mathematical Statistics II". This course provides for a broader coverage of mathematical statistics topics in two courses rather than one, allowing a greater emphasis to be placed on the collection and analysis of real data.

In other news, Professor Ed Hill will be taking a well earned sabbatical this spring. To help cover the courses, Professor Margaret Wogahn will teach six courses this year. Professor Freeman replaces Ed as the department chairman.

Clarke College

In May Sr. James Marie Gross, PBVM was nominated for Clarke's Meneve Dunham Excellence in Teaching Award. In June Carol Spiegel, BVM attended the NSF-sponsored Faculty Development Workshop in Discrete Mathematics at Northeastern University in Boston.

Five Clarke students are participating in Dubuque's Homework Hotline, a two-hour call-in service available to grade school and high school students.

Mount Mercy College

There are three new people in Computer Science; Donna Smith, M.S. Computer Science, Western Illinois, Paul Phillips, M.S., Computer Science, SUNY, Albany, and Wen Zhang, M.S. Computer Science, University of Iowa. Donna filled an expansion position, while Paul and Wen are replacements for two resignations.

Mount Mercy was awarded a National Science Foundation matching fund grant for \$69,355 for the purchase of a Sun 4/2805 minicomputer to enable us to use Ada as the primary programming language in our computer science curriculum. The full-scale implementation of our Ada-based curriculum should begin next fall.

Central College

Professor Thomas Iverson is on leave of absence for the 1988-89 academic year. He is teaching mathematics and computer science courses at Moi University in Eldoret, Kenya, while assisting their staff in the development of a computer science curriculum.

Professor Robert Franks is a new appointment in the Department of Mathematics and Computer Science. Franks holds an M.S. degree in Computer Science from Iowa State University, and most recently taught at Mount Mercy College in Cedar Rapids.

Professor Donald Meyer received a grant from the State Board of Regents to direct a mathematics teachers institute for Iowa mathematics teachers, grades 6-12, entitled "Discrete Methods in Mathematics". These funds are federal funds made available under Title II of the Education and Economic Security Act of 1984. The institute was held for eight weeks during June and July, 1988, and was conducted jointly by Meyer and Professor Agnes Andreassian. Seventeen Iowa teachers participated. Institute funds provided room, board, tuition, fees, books, and a stipend for each participant. Each participant enrolled in a discrete mathematics course and a programming course.

Dordt College

Dr. Dale Varberg of Hamline University visited the campus of Dordt College on April 7, 1988. He presented two talks at the Colleges of Mid-America (CMA) annual Mathematics, Computer Science, and Physics Conference. Professor Varberg's presentations were "Picks Theorem" and "Those Binomial Coefficients".

CMA includes Briar Cliff College, Buena Vista, Dordt College, Westmar College, and Northwestern College in Iowa and Dakota Wesleyan, Mount Marty, and Sioux Falls College from South Dakota. CMA sponsors the Mathematics, Computer Science and Physics Conference each year for students and faculty in those disciplines.

Drake University

H.K. Krishnapriyan is a Visiting Assistant Professor in the department for the 1988-89 academic year. Krishna received a B.Sc. degree from Bangalore (India) University, a M.Sc. from the Indian Institute of Technology, and M.A. and Ph.D. degrees from the University of Rochester. He is currently on leave from LeMoyne College in Syracuse, NY. His research interests include algebraic geometry and commutative algebra.

Bernadette Baker, Instructor, has been granted tenure. Ms. Baker has worked in the department since 1979 and was appointed to a tenure-track position in 1981. Her teaching responsibilities have included much of the direction of the precalculus mathematics courses and the mathematics for elementary education. She has made several presentations to the Iowa Mathematics meetings in the areas of pedagogy and graph theory.

Alexander Kleiner, Professor and Chair, was recognized last spring as the Teacher of the Year in the College of Arts and Sciences. He was chosen for this honor by a college-wide committee of students and faculty.

Ken Kopecky, Professor, received one of twenty-five 1988 SIGGRAPH Conference Grants for Educators. The award provided approximately \$1500 in registration fees, slides, notes and videotapes from the SIGGRAPH meetings in Atlanta.

The student team of **Sean Downing**, **John Humanski** and **John Seal** was recognized as one of six Outstanding teams in the Mathematical Contest in Modeling administered last February by The Consortium for Mathematics and Its Applications. Humanski and Seal presented their work at the July SIAM meetings in Minneapolis.

Patsy Fagan, Instructor, will serve as General Chairperson for two meetings: the February 1989 meeting of the ICTM and the six-state regional NCTM conference in February 1992.

An undergraduate problem-solving group was created this fall to work on problems from the *Monthly*, *College Mathematics J.*, etc. The group, advised by **Luz DeAlba**, Assistant Professor, has submitted its first solution.

American Mathematics Competitions has named Ms. Joette S. Schleichman, FSA, of Century Life of America in Waverly as the new Regional Examination Coordinator for the state of Iowa.

Math Clubs

Two colleges have made reports about math clubs. Wartburg College has the Iowa Delta Chapter of Kappa Mu Epsilon national mathematics honor society with 16 new initiates last April, and an organization called "Missing Bytes" for computer science students. Luther College reports that they have voted to establish a mathematics club on a trial basis for 1988-89. The club will meet once a month with a balance between recreational mathematics and serious intellectual pursuits. They also will want a good blend of social activities.

Treasurer's Report for 1987:

| | | | |
|------------------------|---------------|--------------------------|------------------|
| Balance on Hand | | January 1, 1987 | \$ 902.76 |
| Receipts | 667.89 | Disbursements | 741.00 |
| Interest | 43.39 | Printing | 219.36 |
| Registrations | 250.00 | Postage | 154.73 |
| Book Sales | 214.50 | Meeting expenses | 139.81 |
| Nat'l Allotment | 160.00 | Book Sales(to MAA) | 214.50 |
| | | Bank charges | 12.60 |
| Balance on Hand | | December 31, 1987 | \$ 829.65 |

From the Secretary-Treasurer:

The 1988 treasurer's report will likely look very much like the 1987 report - we will probably spend somewhat more than we receive. Our principal expense is the newsletter but those attending the spring meeting wanted us to continue with the current arrangement of two newsletters per year. The officers are open to suggestions for new sources of income.

The MAA has begun two Incentive Programs which have the potential of helping our treasury. The Membership Incentive Program will return \$10 to the section for each new regular member nominated by the Section. If you have a colleague interested in joining have them complete a copy of the enclosed form (or any current application form) and send the application to me to validate for the Section and forward to the national office.

The second program relates to the book sale at our spring meeting. Beginning with the 1989 meeting the Section will receive a 10% commission on MAA publications sold at the meeting. Neither of these programs will pay for the Newsletter but they may help.

David Oakland

Nominated by the IOWA Section
MAA MEMBERSHIP APPLICATION
 Send this application to: David Oakland, Sec-Treas., Iowa Section - MAA,
 Math. Dept., Drake University, Des Moines, IA 50311

Name _____

Mailing Address _____

Employer/School _____ Zip _____

Position (Rank) _____

Employer's City/State _____

Highest Earned Degree _____ Year Degree Earned _____

Institution Awarding Degree _____

Month/Year of Birth _____

Have you been a member of the MAA before? Yes No

Your membership may begin on July 1 or January 1. You may elect to receive any of the listed combinations of the three MAA journals. All members receive *Focus*, the MAA newsletter.

Please **circle** the appropriate box corresponding to your initial membership period and the selection of journals you wish to receive. (Rates are guaranteed for the indicated periods only.) Subscription prices are included with dues (see **).

THE AMERICAN MATHEMATICAL MONTHLY (M)
 MATHEMATICS MAGAZINE (G)
 THE COLLEGE MATHEMATICS JOURNAL (J)

| | M | G | J | M + G | M + J | G + J | M + G + J |
|----------------------------------|---------|---------|---------|---------|---------|---------|-----------|
| Student Membership | | | | | | | |
| 1 Year (Jan-Dec. 1989) | \$29.00 | \$23.00 | \$25.00 | \$36.00 | \$38.00 | \$31.00 | \$ 44.00 |
| 1 1/2 Year (July 1988-Dec. 1989) | \$43.50 | \$34.50 | \$37.50 | \$54.00 | \$57.00 | \$46.50 | \$ 66.00 |
| Regular Membership | | | | | | | |
| 1 Year (Jan-Dec. 1989) | \$48.00 | \$35.00 | \$39.00 | \$61.00 | \$65.00 | \$52.00 | \$ 78.00 |
| 1 1/2 Year (July 1988-Dec. 1989) | \$72.00 | \$52.50 | \$58.50 | \$91.50 | \$97.50 | \$78.00 | \$117.00 |

** Student membership available to high school and undergraduate students and to students regularly enrolled in graduate study at least half time. Enclose letter from school or department official confirming status. Student rates apply to unemployed persons who are seeking employment.

** Annual dues include subscription prices as follows: Regular Member \$26 (M), \$17 (J), \$13 (G), \$3 (Focus); Student Member \$13 (M), \$9 (J), \$7 (G), \$1 (Focus).

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Two Year Colleges

In June, Ron Beeler, Central Regional vice President of AMATYC, met with faculty from Clinton, Muscatine, DMACC, and Kirkwood and formed an Iowa affiliate to be known as IMATYC. Chuck Kolsrud will serve as this organization's first president. Official recognition will be given at the 14th Annual Convention to be held in Calgary on October 27-30, 1988. The officers of IMATYC are:

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The IMATYC hopes to occasionally hold meetings in conjunction with the Iowa MAA section. They have encouraged their new members to retain their membership in MAA.